

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

**BOARD OF VISITORS MEETING
October 10, 2018
Merten Hall, Fairfax Campus**

AGENDA

- 7:30 a.m. – 8:00 a.m. *Continental Breakfast*
(Room 1205)
- 8:00 a.m. – 8:25 a.m. **Executive Committee**
(Room 1201)
- 8:30 a.m. – 9:25 a.m. **Audit Committee**
(Room 1202)
- 9:30 a.m. – 10:25 a.m. **Academic Programs, Diversity and University Community Committee**
(Room 1201)
- 10:30 a.m. – 11:20 a.m. **Development Committee**
(Room 1202)
- 10:30 a.m. – 11:20 a.m. **Research Committee**
(Room 1204)
- 11:25 a.m. – 12:20 p.m. **Finance and Land Use Committee**
(Room 1201)
- 12:20 p.m. – 1:05 p.m. *Lunch*
(Buffet in Room 1203; seating in Rooms 1203 & 1204)

BOARD OF VISITORS MEETING AGENDA

Merten Hall, Room 1201

- 1:10 p.m. **I. Call to Order**
- 1:10 p.m. – 1:20 p.m. **II. Resolution Approval (ACTION ITEM)**
- 1:20 p.m. **III. Approval of the Minutes (ACTION ITEMS)**
A. Planning Conference Minutes for July 26, 2018
B. Annual Meeting Minutes for July 27, 2018
- 1:20 p.m. – 1:25 p.m. **IV. Rector's Report**

- 1:25 p.m. – 1:45 p.m.** **V. President’s Report**
A. Board of Visitors Continuing Education (per HB1952) – Frank Neville
- 1:45 p.m. – 2:00 p.m.** **VI. Provost’s Report**
- VII. Committee Reports**
- 2:00 p.m. – 2:05 p.m.** **A. Development Committee**
- 2:05 p.m. – 2:10 p.m.** **B. Audit Committee**
- 2:10 p.m. – 2:15 p.m.** **C. Academic Programs, Diversity and University Community Committee**
1. Faculty Actions (ACTION ITEMS)
a. Elections of New Tenure Hires
2. New Program Approvals (ACTION ITEMS)
a. LLM in Cyber Intelligence and National Security
b. MS in Climate Science
c. Ph.D. in Business
- 2:15 p.m. – 2:20 p.m.** **D. Research Committee**
- 2:20 p.m. – 2:25 p.m.** **E. Finance and Land Use Committee**
1. 9d Debt Resolution – Utility Infrastructure Project (ACTION ITEM)
2. State Six-Year Operational Plan (ACTION ITEM)
3. DHRM Succession Planning (ACTION ITEM)
4. Investment Policy (ACTION ITEM)
5. Land Use Certification (ACTION ITEM)
- 2:25 p.m. – 3:00 p.m.** **VIII. Closed Session**
A. Public Contract (Code of VA: §2.2-3711.A.29)
B. Gifts, Bequests, and Fundraising Activities (Code of VA: §2.2-3711.A.9)
C. Consultation with Legal Counsel pertaining to actual or probable litigation (Code of VA: §2.2-3711.A.7)
D. Consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice (Code of VA: §2.2-3711.A.8)
E. Personnel Matter (Code of VA: §2.2-3711.A.1)
F. Honorary Degrees and Special Awards (Code of VA: §2.2-3711.A.10)
- 3:00 p.m.** **IX. Adjournment**

No public comment will be taken at this meeting.

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

**Meeting of the
Executive Committee
October 10, 2018
8:00 – 8:25 a.m.**

**Merten Hall, Fairfax Campus
Room 1201**

AGENDA

- I. Call to Order**
- II. President's Comments**
- III. Closed Session**
 - A. Public Contract (Code of VA: §2.2-3711.A.29)**
 - B. Gifts, Bequests, and Fundraising Activities (Code of VA: §2.2-3711.A.9)**
 - C. Consultation with Legal Counsel pertaining to actual or probable litigation (Code of VA: §2.2-3711.A.7)**
 - D. Consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice (Code of VA: §2.2-3711.A.8)**
 - E. Personnel Matter (Code of VA: §2.2-3711.A.1)**
 - F. Honorary Degrees and Special Awards (Code of VA: §2.2-3711.A.10)**
- IV. Adjournment**

No public comment will be taken at this meeting.

Audit Committee - October 10, 2018

Call to Order

Audit Committee Meeting Agenda - October 10, 2018

Approval of Audit Committee Minutes

Approval of Committee Minutes for May 3, 2018 Meeting

Closed Session

Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4)

New Business

Approval of Audit Committee Charter

Approval of Audit Committee Charter

Approval of Office of University Audit Department Charter

Approval of Office of University Audit Department Charter

Reports

Office of University Audit Summary Report

Office of University Audit Summary Report

Review of Office of University Audit Planning

Review of Office of University Audit Planning

Adjournment

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

**Audit Committee
October 10, 2018
Merten Hall, Fairfax Campus**

A G E N D A

- I. Call to Order**
- II. Closed Session**
 - A. Critical Infrastructure Vulnerability Assessment Information
(Code of VA: 2.2-3705.2.4)
- III. Approval of Audit Committee Minutes**
 - A. Approval of Committee Minutes for May 3, 2018 Meeting (**ACTION**)
- IV. New Business**
 - A. Approval of Audit Committee Charter (**ACTION**)
 - B. Approval of Office of University Audit Department Charter (**ACTION**)
- V. Reports**
 - A. Office of University Audit Summary Report
 - B. Review of Office of University Audit Planning
- VI. Adjournment**

**AUDIT COMMITTEE
OF THE BOARD OF VISITORS**

**May 3, 2018
Merten Hall**

MINUTES

PRESENT: Chairman Petersen; Vice Chair Blackman; Visitors Hazel and Peterson.

Rector Davis; Faculty Representative Douthett; Senior Vice President Davis; Associate Vice President Dade; University Registrar Dauer; Associate University Counsel Drummey; Associate Vice President and Controller Kemp; Executive Director and Chief Information Security Officer Landry; IT Security Director McNay; Associate University Counsel Schlam; Vice President and Chief Information Officer Smith; University Counsel Walther; Chief Ethics Officer Woodley; Assistant Vice President Zobel; University Auditor Dittmeier; Associate University Auditor Watkins; and Senior IT Auditor Sanders.

ABSENT: Visitor Purvis.

I. Chairman Petersen called the meeting to order at 8:46 a.m.

II. Approval of Minutes

Chairman Petersen called for a motion to approve the minutes of the Audit Committee meetings held on March 1, 2018 and April 11, 2018. The motion was **MOVED** by Visitor Hazel and **SECONDED** by Visitor Blackman.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE.

III. Closed Session

Visitor Blackman **MOVED** and Visitor Hazel **SECONDED** that the Committee go into Closed Session under the provisions of Section 2.2-3705.2.4 to discuss critical infrastructure vulnerability assessment information. There was no discussion.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE.

Visitor Blackman **MOVED** and Visitor Hazel **SECONDED** that the committee go back into public session and it was further moved that by **ROLL CALL VOTE** affirm that only public business matters lawfully exempted from the open meeting requirements under the Freedom of Information Act were heard, discussed, or considered in the Closed Session, and that only such business matters that were identified in the motion to go into Closed Session were heard, discussed, or considered in the Closed Session.

AUDIT COMMITTEE

May 3, 2018

Page 2

Roll call was taken with all present members responding in the affirmative.

IV. Reports

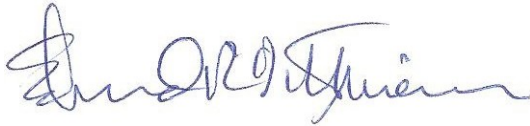
A. Office of University Audit Summary Report

Mr. Dittmeier reviewed with the Committee the Office of University Audit Summary Report. He described the three audit reports issued since the last meeting.

V. Adjournment

Chairman Petersen declared the meeting adjourned at 9:26 a.m.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "Edward R. Dittmeier". The signature is fluid and cursive, with a large initial "E" and "R".

Edward R. Dittmeier

Secretary pro tem

ITEM NUMBER: IV.A.

Approval of Audit Committee Charter

PURPOSE OF ITEM:

This item facilitates the Audit Committee's review of its charter.

NARRATIVE:

The Audit Committee's charter was last approved in October 2017.

- The charter requires the Committee to "review annually and update the Committee's formal charter".

Minor edits are recommended to ensure the charter continues to be fully aligned with the Board's by-laws.

The proposed charter has been reviewed with University Counsel Walther and Dr. Cabrera. Mr. Walther confirmed the charter is aligned with the university's by-laws.

No further revisions are recommended to the Committee.

RECOMMENDATION:

Approval of revisions to the Audit Committee Charter.

GEORGE MASON UNIVERSITY BOARD OF VISITORS AUDIT COMMITTEE CHARTER

PURPOSE

The purpose of the Audit Committee is to assist the Board of Visitors in fulfilling its oversight responsibilities for the financial reporting process, the system of internal controls, internal and external auditing, and the University's process for monitoring compliance with laws and regulations.

The function of the Audit Committee is oversight. University management is responsible for the preparation, presentation, and integrity of the University's financial statements and for maintaining effective policies, procedures, and controls designed to assure compliance with generally accepted accounting principles and applicable laws and regulations.

COMPOSITION

The Audit Committee will consist of three or more Visitors determined annually by the Board of Visitors. The Rector shall appoint the Chairman and Vice Chairman subject to ~~the~~ confirmation by the Board of Visitors. Each committee member shall be independent as defined by the Board of Visitors. At least one member shall be financially literate as defined by the Board of Visitors.

MEETINGS

The schedule of Committee meetings is determined annually by the Board of Visitors; additional meetings may occur as determined by the Committee Chairman. The Committee Chairman should meet with the University Auditor as necessary and at least prior to each Committee meeting. Committee actions will be reported to the Board of Visitors with such recommendations as the Committee may deem appropriate. The Committee may meet in closed session, ~~consistent~~ in accordance with state law.

RESPONSIBILITIES

In fulfilling its oversight responsibilities, the Audit Committee shall:

- Adopt the Committee's Charter. The charter should be reviewed annually and updated as necessary.
- Conduct or authorize its own investigations into issues related to its responsibilities and, as necessary, retain independent advisors to advise the Committee.

Financial Reporting Oversight

- Review and discuss with management and the University's independent auditors, the Auditor of Public Accounts:
 - The University's annual financial statements, including footnotes, the University's significant accounting policies, and disclosures made in Management's Discussion and Analysis.

- The Auditor of Public Accounts' audit of the financial statements, including their report on internal control over financial reporting and on compliance and other matters.
- The effectiveness of the university's system of internal controls over financial reporting.
- Any difficulties or disputes with management encountered during the audit.

Internal Control and Compliance

- Review and discuss with management and the University Auditor:
 - The effectiveness of the University's process for assessing significant risks or exposures and the steps management has taken to monitor and control such risks to the University.
 - The effectiveness of the University's internal controls, including the status and adequacy of information systems and security.
 - The status and timing of management's actions to remediate significant findings and recommendations related to internal controls.
- Review and discuss with management and the University Counsel the effectiveness of the University's process for monitoring compliance with laws and regulations, including the University's programs related to ethics and conflicts of interest.
- Review and consult, as necessary, with the University Counsel and others regarding any legal or regulatory matters significant to the University.

Internal Auditing Oversight

- Approve the Office of University Audit Charter. The charter should be reviewed annually and updated as necessary.
- Assess the internal audit function's independence and reporting relationships.
- Review and approve the internal audit process for establishing risk-based audit plans. Review and discuss with the University Auditor the scope and plans for audits established under this process and factors, including the adequacy of financial and staffing resources, which may affect the effectiveness and timeliness of such audits.
- Review significant reports to management prepared by the internal audit function, or summaries thereof, and management's responses.
- Inquire of the University Auditor regarding any difficulties encountered, such as restrictions on the scope of the work or access to information.
- Review and approve the appointment, replacement, performance, and compensation of the University Auditor, who shall report directly to the Committee for functional purposes, but may report to the University President for administrative purposes.

BYLAWS

In the event of a conflict between this Audit Committee Charter and the Bylaws of the Board of Visitors, the Bylaws shall control.

Effective Date: **October 10, 2018**

ITEM NUMBER: IV.B.

Approval of Office of University Audit Charter

PURPOSE OF ITEM:

This item requests Audit Committee approval of the proposed Office of University Audit charter.

NARRATIVE:

The Audit Committee's Charter requires the Committee to review annually, and update as necessary, the charter for the university's internal audit function.

- The charter was last approved in October 2017.
- The charter continues to align with the Institute of Internal Auditors Standards for the Professional Practice of Internal Auditing and with the directives of the Office of the State Inspector General.
- No changes are recommended to the Committee.

The proposed charter has been reviewed with Dr. Cabrera; he remains fully supportive of the charter and is committed to providing the Office of University Audit with the necessary independence, stature, and access to university personnel and resources to accomplish its responsibilities to the Audit Committee.

Organizational Independence Confirmation: Annually, the University Auditor must confirm the organizational independence of the Office of University Audit. It is.

- Clear functional reporting to Audit Committee, with full and free access to the Committee.
- Demonstrated oversight by Audit Committee.
- Freedom from interference in determining internal audit risk assessments; audit selection and scheduling; audit scope, procedures, frequency, and timing, and audit reporting.
- Unrestricted access to all functions, reports, property, and personnel.
- Non-performance of management or operational responsibilities, including directing any non-Office of University Audit personnel.

RECOMMENDATION:

Approval of the Office of University Audit charter.

GEORGE MASON UNIVERSITY
OFFICE OF UNIVERSITY AUDIT CHARTER

Adopted by the Audit Committee of the Board of Visitors

Edward Rice, Chairman, Audit Committee

Date

University Management is fully supportive of the Office of University Audit in the accomplishment of its mission to provide independent, objective, risk-based assurance and consulting services designed to add value and improve the university's operations. Through its administrative reporting relationship, the Office of University Audit will have the necessary independence, stature, and access to university personnel and resources to accomplish its responsibilities to the Audit Committee.

Ángel Cabrera, President

Date

MISSION

The Office of University Audit provides independent, objective, risk-based assurance and consulting services designed to add value and improve the university's operations. It utilizes a systematic, disciplined approach to evaluate and improve the effectiveness of university governance, risk management, and control processes related to:

- Achievement of the university's strategic objectives.
- Reliability and integrity of significant financial and operational information.
- Effectiveness, efficiency, and economy of operations and programs.
- Safeguarding of assets.
- Compliance with applicable laws, regulations, policies, procedures, and contracts.

INDEPENDENCE

To provide for the independence of the university's internal auditing function, the University Auditor reports functionally to the Audit Committee of the Board of Visitors and administratively to the President. The Audit Committee (i) approves the Office of University Audit Charter, the internal audit process for establishing risk-based audit plans, and the appointment or replacement of the University Auditor, and (ii) reviews the University Auditor's confirmation of the organizational independence of the internal audit function; the internal audit financial and staffing budget; and reports of significant findings and recommendations; among other things. Administrative matters do not include, among other things, matters of audit risk assessments, audit selection and scheduling, audit scope, procedures, frequency, and timing, and audit reporting. The Office of University Audit is prohibited from having management responsibility for any university operational areas.

RESPONSIBILITY

The Office of University Audit is responsible for the university's risk-based internal audit program which is designed to evaluate the adequacy and effectiveness of the university's governance, risk management, and control processes. Among other things, this includes:

- Executing a flexible, risk-based audit plan, using an appropriate risk-based methodology and considering any risks or control concerns identified by management.
- Communicating audit results to management and the Audit Committee, including an annual assessment of the adequacy and effectiveness of the university's governance, risk management, and control processes and summaries of significant issues and recommendations.
- Validating implementation of management's actions to remediate significant issues and recommendations and providing summary status reporting to management and the Audit Committee.
- Conducting, coordinating, and overseeing investigations of (i) potential fraudulent activities and (ii) matters referred by the Office of the State Inspector General related to State Fraud, Waste, and Abuse Hotline case investigations, and communicating results to management and the Audit Committee.
- Maintaining a professional audit staff with sufficient knowledge, skills, and experience to meet the requirements of this Charter.
- Coordinating with other control and monitoring functions (such as risk management, compliance, security, legal, ethics, and environmental) and considering the work of

external auditors and regulators, as appropriate, for the purpose of providing coordinated audit coverage to the university.

- Other audit duties imposed by statutes or regulations of the Commonwealth.

AUTHORITY

The Office of University Audit is authorized to:

- Have unrestricted access to all functions, reports, property, and personnel.
- Have full and free access to the Audit Committee.
- Allocate resources, set frequencies, select subjects, determine scope of work, and apply the techniques required to accomplish audit objectives.
- Obtain the assistance of university personnel as well as other specialized services from within or outside the university.

The Office of University Audit is not authorized to:

- Perform any operational duties for the university.
- Initiate or approve accounting transactions external to the Office of University Audit.
- Direct the activities of any university personnel not employed by the Office of University Audit.

STANDARDS OF AUDIT PRACTICE

The Office of University Audit conducts its work to conform to (i) the directives of the Commonwealth of Virginia's Office of the State Inspector General and (ii) the mandatory professional guidance of the Institute of Internal Auditors, including: the Definition of Internal Auditing; Code of Ethics; and the Core Principles and the International Standards for the Professional Practice of Internal Auditing. To assess such conformance, the Office of University Audit maintains a quality assurance and improvement program that includes internal and external assessments which cover all aspects of the internal audit program; assessment results are communicated to management and the Audit Committee.

EFFECTIVE DATE

This charter is effective October 10, 2018. The charter will be reviewed annually and revised when necessary.



Office of University Audit

Report to the Audit Committee of the Board of Visitors

October 10, 2018

EXECUTIVE SUMMARY

- Three audit reports were issued since the last meeting.
 - Six additional memos addressed aspects of management's establishment of a secured computing environment for handling controlled unclassified information; actions for strengthening Mason's information security program; spending of funding budgeted for strategic initiatives and institutional reserves; and sponsored fund reconciliations testing results.
- Remediation of 21 audit issues is in progress as of September 2018:
 - 14 issues have current target remediation dates in the next six months.
- Audit Plan status:
 - Substantially on track with 3+6 Audit Plan reviewed at the prior meeting.
- Status of fraud, waste, and abuse investigations:
 - Seven completed since the prior meeting; there are four investigations in progress.
 - The completed investigations were isolated in nature.
- Audit staffing:
 - The audit team remains stable with no changes since the prior Committee meeting. Co-sourced resources are being used to provide supplemental skilled expertise when needed.

TABLE OF CONTENTS

Topic

- 1 SUMMARY OF AUDIT REPORTS
 - Supplemental Payroll Payments
 - Spending of Funding Budgeted for Institutional Reserves and Strategic Initiatives.
 - Continuous Audit of Federally Sponsored Fund Reconciliations
- 2 SUMMARY STATUS OF AUDIT ISSUES
- 3 STATUS OF AUDIT PLAN
- 4 STATUS OF INVESTIGATIONS
- 5 STAFFING
- 6 APPENDIX:
 - Audit Issue Details

SUMMARY OF AUDIT REPORTS

- Supplemental Payroll Payments
- Spending of Funding Budgeted for Institutional Reserves and Strategic Initiatives.
- Continuous Audit of Federally Sponsored Fund Reconciliations
- Audit Memos:
 - Feedback Regarding Proposed Controlled Unclassified Information Umbrella Policy
 - Proposed Mapping of NIST 800-53 to NIST 800-171 Alignment of Controls
 - Proposed CUI Compliance Project Business Remediation Plan
 - Feedback Regarding April 5, 2018 Draft IT Security Roadmap
 - Employee Time Recordkeeping at INTO Mason
 - Continuous Audit of Sponsored Fund Reconciliations



INTERNAL AUDIT REPORT

Report Title:

Supplemental Payroll Payments

Report Date:

September 5, 2018

Responsible Manager:

Renate Guilford
Associate Provost, Academic Administration
Sue Tinsman
Assistant Vice President of Payroll

EXECUTIVE SUMMARY:

Background:

Payroll transactions at George Mason University (Mason) are identified with one of three contract job type indicators: primary (i.e., the individual’s main job at the university (e.g., instructional faculty position)), secondary (i.e., lesser roles than the primary job which are continuous (e.g., faculty department chair)), and overload (i.e., jobs which are temporary in nature that fall outside other identified responsibilities where compensation is provided).

Supplemental payments include both secondary and overload job types. Due to their temporary nature, as well as evolving needs of the university, supplemental payments are the most frequently changing and voluminous job type for payroll-related transactions; transparency into these transactions may be limited since they are usually administered by local units (i.e., schools or colleges) and detailed Banner data may be limited. These payments can be made to the following employee classifications:

- Instructional faculty
- Administrative/Professional faculty
- Research faculty
- Postdoctoral research fellows
- Classified employees
- Adjunct faculty
- Wage employees
- Graduate assistants and resident advisors

These payments are made for various purposes including:

- Awards
- Bonuses
- Miscellaneous pays
- Overloads
- Stipends
- Summer research
- Summer teaching
- Temporary/Interim pay
- Wages (e.g., for non-benefitted employees)

An employee’s position type (e.g., admin/professional faculty, instructional faculty, etc.) determines which of the supplemental payment types an employee is eligible to receive and how the job assignment should be entered in Banner.

Analysis of Banner supplemental job data considering employee classification, transaction values and volumes by supplemental payment type, and underlying nature of the transaction resulted in the audit focusing on the following types of supplemental payments:

- Bonuses
- Miscellaneous pays (both faculty and admin/professional faculty)
- Overloads (both faculty and admin/professional faculty)
- Summer research

- Summer teaching

Supplemental Payment Type	Amount*	
Summer Research	\$ 8,405,013	35%
Instructor of Record	\$ 6,459,557	26%
Summer Teaching	\$ 4,584,121	19%
Instructional Faculty Misc. Pay	\$ 3,548,677	15%
Faculty Overload	\$ 1,000,341	4%
Non-Instructional Faculty/Staff Misc. Pay	\$ 342,508	1%
	<u>\$ 24,340,217</u>	<u>100%</u>

*From May 25, 2017 - May 18, 2018

Supplemental job assignment activity was reviewed for all Mason units between May 2017 and May 2018.

Audit Conclusion:

Supplemental job assignments and resulting payments complied with Mason’s Supplemental Pay Procedures which describe approval and processing requirements, and were supported by appropriate contractual agreements, where required by the procedures. Management should evaluate clarifying or strengthening processes related to adjunct pay structures, contract courses, instructor data in Banner, and overload letter approvals.



INTERNAL AUDIT REPORT

Report Title:	Spending of Funding Budgeted for Institutional Reserves and Strategic Initiatives	Report Date:	August 23, 2018
Responsible Manager:	Jennifer Wagner Davis Senior Vice President for Administration and Finance		

EXECUTIVE SUMMARY:

Background:

George Mason University allocates operating budget resources to support strategic plan initiatives and unforeseen institutional needs. Within the university’s \$1.0 billion FY18 operating budget, \$1.5 million was allocated for strategic plan initiatives and \$4.0 million was allocated for institutional reserves. The strategic plan initiatives budget allocation was designated for initiatives that may include, but not be limited to, support for the student redesign initiative, investment in research, strategic ventures and the Campus for the Future (West Campus). The allocation for institutional reserves has not been allocated for specific needs, but is available for unplanned contingency requirements.

The Office of Budget & Planning provides overall oversight of Mason’s financial resources, and tracks the allocation and use of budget resources for strategic plan initiatives and institutional reserves. Through June 30, 2018, \$507,200 of the FY18 strategic plan initiative budget and \$20,750 of FY18 institutional reserves have been distributed for use as shown in the table below:

	Strategic Plan Initiatives	Institutional Reserves
Allocated through 3/31/18	\$249,600	\$20,750
Allocated 4/1/18 – 6/30/18	\$257,600	\$0
Total Allocated through 6/30/18	\$507,200	\$20,750

The Office of University Audit is regularly evaluating Mason’s use of budget resources designated for strategic plan initiatives and institutional reserves for proper authorization, use for intended purposes, proper recording, and documentary support; this assessment updates our previous evaluation and covers FY18 activity through June 30, 2018.

Audit Conclusion:

Mason’s distribution of FY18 resources budgeted for strategic plan initiatives and institutional reserves through June 30, 2018 have been properly authorized, recorded, supported with adequate documentation, and used for the intended purposes.



INTERNAL AUDIT REPORT

Report Title:	Continuous Audit of Federally Sponsored Fund Reconciliations	Report Date:	July 12, 2018
Responsible Manager:	Lisa Kemp, Associate Vice President and Controller, Fiscal Services Mike Laskofski, Associate Vice President of Research Operations, Office of Sponsored Programs		

EXECUTIVE SUMMARY:

Background:

University Policy Number 2114, Reconciling Departmental and Sponsored Fund Accounting Records, requires that reconciliations be prepared and certified/approved timely; charges and credits to the fund or organization are reasonable and be supported by appropriate documentation; and discrepancies/reconciling items be documented and resolved within 90 days following the end of the reconciliation period.

The Controller, in conjunction with the Office of Sponsored Programs and the Office of University Audit (OUA), is responsible for monitoring and ensuring that the provisions of the policy are observed as they relate to research funds. The OUA began evaluating federally sponsored fund reconciliations for compliance with policy requirements in FY 2018. We evaluated 60 federally sponsored fund reconciliations across the university's schools, colleges, and centers to ensure appropriate coverage.

Audit Conclusion:

Mason's policies and procedures to ensure federally sponsored fund reconciliations are prepared and approved timely, and reconciling items are identified and resolved are well designed and operating effectively. Minor exceptions were reviewed with the Principal Investigators, reconcilers, Directors of Finance, and Deans for assessment and resolution.

SUMMARY OF AUDIT MEMOS:

Audit Memos are communications which provide assurance related to a narrow, targeted topic or provide interim updates on longer-term assurance activities.

Feedback Regarding Proposed Controlled Unclassified Information Umbrella Policy dated June 26, 2018

- Confidential – Restricted Data: Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4).

Proposed Mapping of NIST 800-53 to NIST 800-171 Alignment of Controls dated June 27, 2018

- Confidential – Restricted Data: Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4).

Proposed CUI Compliance Project Business Remediation Plan dated July 10, 2018

- Confidential – Restricted Data: Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4).

Feedback Regarding April 5, 2018 Draft IT Security Roadmap dated July 30, 2018

- Confidential – Restricted Data: Critical Infrastructure Vulnerability Assessment Information (Code of VA: 2.2-3705.2.4).

Employee Time Recordkeeping at INTO Mason dated June 29, 2018

- Confidential – Personnel Data (Code of VA: 2.2-3711.A.4).

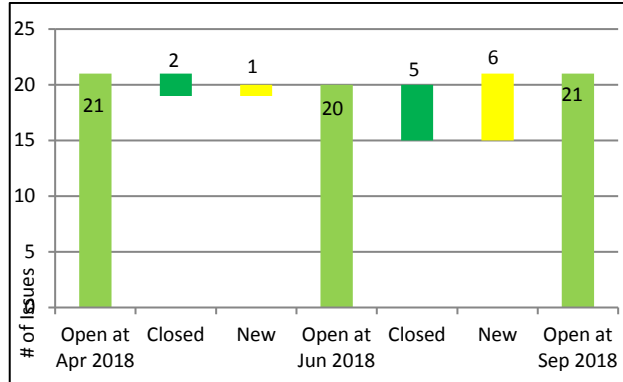
Continuous Audit of Sponsored Fund Reconciliations dated July 9, 2018.

- Summary results of continuous audit testing of reconciliation preparation, timeliness, approval, and documentary support. 15 reconciliations tested.
- Testing determined compliance with University Policy; there were no exception in the sample tested.

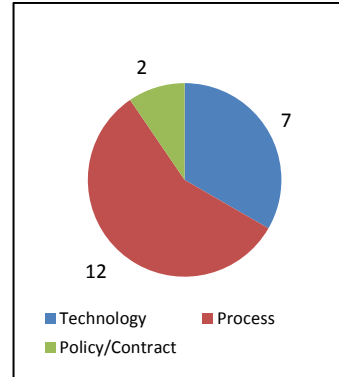
SUMMARY STATUS OF AUDIT ISSUES AS OF SEPTEMBER 15, 2018

There were 21 open audit issues as of September 15, 2018. Remediation of five audit issues was completed by management since April 2018.

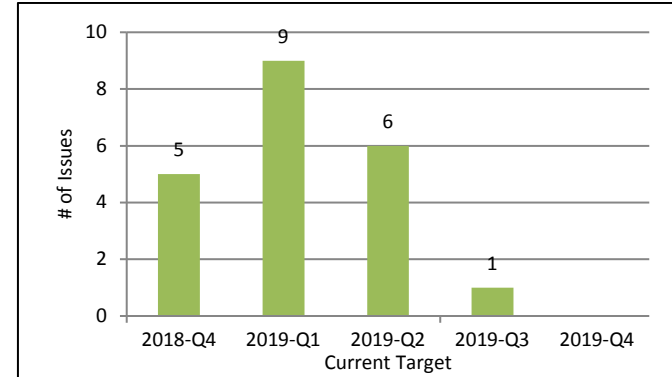
Audit Issue Inventory Movement



Audit Issues by Type



Audit Issues by Current Target



Audit Report	Report Date	Open at Apr 2018	New	Closed	Open at Jun 2018	New	Closed	Open at Sep 2018
Supplemental Payroll Payments	9/5/18	-	-	-	0	4	-	4
Employee Remote Work Agreements	8/29/18	-	-	-	0	1	-	1
Employee Time Recordkeeping at INTO Mason	6/29/18	-	-	-	0	1	-	1
Student Academic Program Costs Estimate	6/18/18	-	1	(1)	0	-	-	0
Conflict of Interest in Research Process	4/9/18	2	-	(1)	1	-	(1)	0
Office of the University Registrar	3/7/18	6	-	-	6	-	-	6
Athletics Travel Expenditure Documentation	2/10/17	1	-	-	1	-	-	1
Use of Wiley edu Employees to Process Certain Registration Transactions	10/16/17	1	-	-	1	-	-	1
Administrative Management of Sponsored Programs	10/11/17	1	-	-	1	-	-	1
IT Governance and Project Prioritization	8/7/17	3	-	-	3	-	-	3
College of Health and Human Services	5/11/17	3	-	-	3	-	(3)	0
Decentralized IT Management and Security: Office of the Provost	10/23/15	2	-	-	2	-	(1)	1
Information Security Management: Boundary Protection	9/9/13	1	-	-	1	-	-	1
Enterprise Project Management Framework and System	3/28/13	1	-	-	1	-	-	1
		21	1	(2)	20	6	(5)	21

STATUS OF AUDIT PLAN AS OF SEPTEMBER 15, 2018

The 3+6 Audit Plan as of September 15, 2018 (bottom bars) is compared with the status as of the prior report to the Committee (top bars). (Note: The status of work is shown as follows: completed = orange bars, in progress = green bars, and planned = yellow bars)

Topic	Description	6 30	9 30	12 31	3 31
Aligned with University-Level Risk Areas					
IT Vulnerability and Patch Management	<ul style="list-style-type: none"> Assess processes for identifying and remediating IT vulnerabilities. 				
Major Research Project Initiation	<ul style="list-style-type: none"> Assess processes and structures to stand up newly-awarded research project. 				
Controlled Unclassified Information (CUI) Data and Security Environment	<ul style="list-style-type: none"> Monitor management's project to establish IT environment for handling CUI data and ensure compliance with federal regulations. Validate selected areas once established. 				
Information Security Program	<ul style="list-style-type: none"> Monitor projects to further strengthen security of Mason's technology environment and co-develop regular updates to the Audit Committee. 				
Recruiting Processes	<ul style="list-style-type: none"> Assess effectiveness and efficiency of processes for acquiring, recruiting, and hiring faculty and staff. 				
Data and Security Risk Assessment: Colleges – Validation Procedures	<ul style="list-style-type: none"> Validate selected management assertions regarding information security risks in college-managed technology environments. 				
Academic Innovation and New Ventures Initiatives	<ul style="list-style-type: none"> Monitor development and implementation of major academic innovation and ventures initiatives. 				
Faculty Workload Guideline Implementation	<ul style="list-style-type: none"> Assess implementation of faculty workload guidelines across various colleges, including management's oversight processes. 				
Banner Improvement Upgrade Projects	<ul style="list-style-type: none"> Monitor management's multi-year project to study and enhance Banner and suite applications. Assess potential project and process risks; communication. 				
Construction Payments and Change Orders	<ul style="list-style-type: none"> Monitor and assess payments related to in-progress Robinson Hall and Utility Distribution Infrastructure construction projects. 				
Additional Areas					
Intercollegiate Athletics	<ul style="list-style-type: none"> Assess business and compliance processes relevant to intercollegiate athletics programs. 				
Spending of Funding for Reserves and Strategic Initiatives	<ul style="list-style-type: none"> Monitor and validate spending of FY19 budgets for institutional reserves (\$4 million) and strategic initiatives (\$4 million). 				
Supplemental Payroll Payments	<ul style="list-style-type: none"> Analyze and assess miscellaneous supplemental payroll payments. 				
Travel Advances	<ul style="list-style-type: none"> Assess travel advance settlement processes and controls. 				
Faculty Study Leaves	<ul style="list-style-type: none"> Assess faculty study leave administrative processes and controls. 				
Issue Validation Procedures	<ul style="list-style-type: none"> Validate management has remediated audit issues in a comprehensive and sustainable manner. 				
Hotline Investigations Referred by OSIG	<ul style="list-style-type: none"> Investigate allegations of fraud, waste, or abuse received from the Commonwealth's Office of the State Inspector General. 				

STATUS OF INVESTIGATIONS AS OF SEPTEMBER 15, 2018

Seven investigations were completed since the prior Committee meeting; they were isolated in nature with negligible impact to the University.

Nature of Allegation	Type	Status	Remarks
Potential non-compliance with hiring policy	Abuse	Complete	
Potential waste of State funds related to travel expenditures	Waste	Complete	
Potential conflict of interest	Abuse	Complete	
Potential leave abuse and waste	Waste	Complete	Allocation of timesheet approval responsibilities being re-evaluated.
Potential fraudulent travel advance settlements	Fraud	Complete	Travel advance settlement process communications and training are being enhanced; enforcement being strengthened.
Potential tuition cost estimate errors	Fraud	Complete	
Potential leave abuse and waste	Waste	Complete	
Potential conflict of interest related to outside employment	Abuse	In Progress	
Potential waste of State funds related to procurement activities	Waste	In Progress	
Potential contract compliance issues	Waste	In Progress	
Potential payroll and leave calculation errors	Fraud	In Progress	

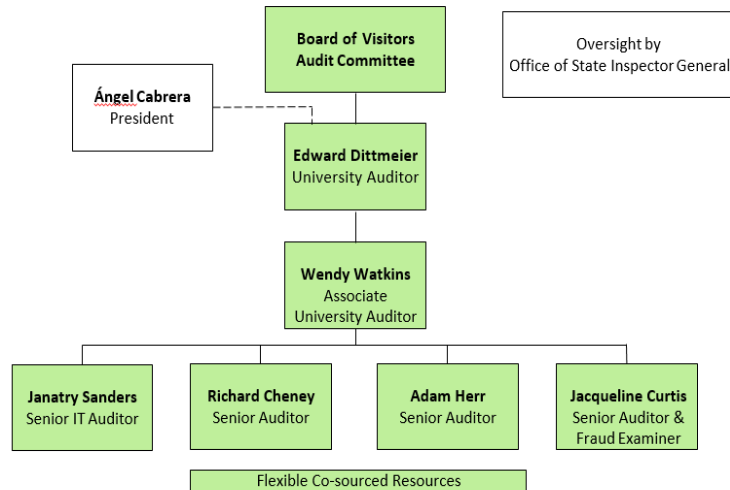
Summary of Types:

- **Fraud** = Intentional deception which could result in a benefit to the perpetrator, others, or the Commonwealth or could cause detriment to others or the Commonwealth. Fraud includes a false representation of a matter of fact, whether by words or by conduct, by false or misleading statements, or by concealment of that which should have been disclosed, which deceives or is intended to deceive. E.g., falsifying financial records to cover up theft.
- **Waste** = Careless expenditure, mismanagement, use, or squandering of Commonwealth resources to the actual or potential detriment of the Commonwealth. Includes unnecessary costs due to inefficient or ineffective practices, systems, or controls. E.g., unnecessary spending of state funds for no business purpose.
- **Abuse** = Excessive or improper use of something contrary to natural or legal rules for its use. Intentional destruction, diversion, manipulation, misapplication, mistreatment, or misuse of Commonwealth resources. Excessive use as to abuse one's position or authority. E.g., Use of state assets for non-state business.

STAFFING

Audit staffing remains stable with no changes since the prior Committee meeting. Co-sourced resources remain available to provide supplemental skilled expertise when needed.

Organization



Staffing

	Plan	Actual	
		a/o July 2018	a/o Sep 2018
Core Audit Team			
Audit Leadership	2	2	2
Auditors by Expertise:			
Operational Audit	2	2	2
IT Audit	1	1	1
Fraud Audit	1	1	1
Total Audit Professional Employees	6	6	6
Cosourced FTE* Supported by Permanent Budget	0.8		0.2
Total Audit Professionals Supported by Permanent Budget	6.8	6.0	6.2
Cosourced FTE* Supported by FY19 Temporary Budget	0.5		
Audit Professionals Supported by FY19 Budget	7.3	6.0	6.2

Note: * = Cosourced FTE are estimated based on actual hours provided by cosourced resources and a 1,500 hour/FTE rate.

APPENDIX: AUDIT ISSUE DETAILS AS OF SEPTEMBER 15, 2018

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
1	<p>Report Name: Office of the University Registrar</p> <p>Report Date: 3/7/18</p> <p>Management: Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p>Align Mason Administration of Degree Programs with State Council of Higher Education for Virginia Administrative Requirements: Mason has degree and certificate programs that have not been established to conform to State Council of Higher Education for Virginia (SCHEV) requirements. SCHEV requirements limit one degree or certificate program at each level (certificate, bachelors, etc.) per classification of instructional programs (CIP) code. The purpose of the CIP code is to provide SCHEV with a classification scheme to track, assess, and report fields of study and program completion activities at the state and federal level. Prior to our audit, management in the Office of University Registrar and the Office of the Provost had identified this issue; they are working to identify impacted programs and developing solutions to align all programs appropriately.</p>	<p>The Office of Accreditation and Program Integrity (OAPI) has made substantial progress in resolving discrepancies in certificate program inventories. Resolution depends on actions by SCHEV subsequent to analyses provided by Mason. Such analyses have been provided to support 52 certificate programs; analyses for a further 13 certificate programs and seven undergraduate or graduate degree programs are in progress.</p> <p>OAPI is overseeing future changes in program inventory. Going forward, the Office of the University Registrar will not activate or inactivate any certificate or degree program without the express written consent of the OAPI.</p>	9/30/18	9/30/18
2	<p>Report Name: Supplemental Payroll Payments</p> <p>Report Date: 9/5/18</p> <p>Management: Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p>Formally Document and Approve All Unit Adjunct Pay Structures: The Office of the Provost has formally approved an adjunct faculty salary matrix that identifies minimum adjunct pay rates to be utilized by academic units based on course levels, and adjunct faculty qualifications and experience. At least seven academic units utilize adjunct pay structures that are different than the rates formally approved by the Office of the Provost. This practice risks having payment structures in place which do not meet Office of the Provost guidelines and provides for the potential miscommunication or misapplication of informal agreements.</p>	<p>The Provost's Office is in the process of collecting and documenting all units that utilize adjunct pay structures other than the university-wide minimums to ensure they meet or exceed the required minimums.</p>	10/1/18	10/1/18
3	<p>Report Name: Enterprise Project Management Framework and System</p> <p>Report Date: 3/28/13</p>	<p>Metrics Based Project Management: A cost estimation and tracking mechanism is not in place to determine and track time and costs to complete IT projects. Such a mechanism can support improved comparative analysis, decision making about future projects, and project monitoring and control.</p>	<p>Information Technology Services management continues to re-assess the appropriate process for making decisions regarding sizing and undertaking IT projects, including the appropriate level of consideration for time and cost, and tracking and reporting actual performance. ITS management has piloted a process to identify a</p>	9/30/13	12/15/18

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	Management: Charles Spann, Executive Director, Information Technology Services		high level estimate of project costs. The pilot is being evaluated and next steps, including potentially an expansion to additional projects, will be determined.		
4	Report Name: Information Security Management: Boundary Protection Report Date: 9/09/13 Management: Marilyn Smith Vice President/Chief Information Officer, Information Technology Services	Review Firewall Configurations: Firewall configurations are currently not being reviewed and re-authorized on a cyclic basis. Without a formal process to periodically review and re-authorize firewall configurations, the university cannot ensure that rule bases are adequate and/or still required.	After several attempts to appropriately structure and remediate firewall configuration management processes, including reviews and authorizations, ITS management committed to developing a new expanded policy and associated procedures to define baseline configuration standards, minimum password strength parameters, code upgrade schedules, and vulnerability scanning requirements by July 1, 2018. Firewall configurations protecting Banner will be brought online during the Banner 9 upgrade. Firewall rules protecting other applications will be revalidated; by December 15, 2018, ITS will develop the plan to complete the revalidation.	1/31/14	12/15/18
5	Report Name: Office of the University Registrar Report Date: 3/7/18 Management: Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost	Implement Regular Family Educational Rights and Privacy Act Refresher Training: Mandatory FERPA training has been a requirement to gain access to the Banner system since late 2016; the requirement was not made retroactive. As a result, there are users accessing student information that have never been trained on the expectations and requirements of FERPA.	The Office of the University Registrar (OUR), with the approval of Human Resources, and the Office of Compliance, Diversity and Ethics, will create a Mason policy which requires mandatory FERPA training for all faculty and staff with access to personally identifiable student educational records, prior to establishing Banner and Microstrategy accounts. Mason employees will be required to complete the training once every two years. Training compliance monitoring is expected to be completed by December 31, 2018. In order to ensure that all required faculty, staff and employees have access and the ability to take the required FERPA training, OUR has developed the online FERPA training and is fully operational.	12/31/18	12/31/18
6	Report Name: Office of the University Registrar Report Date: 3/7/18	Evaluate Classroom Capacity and Constraints to Meet Future Growth Requirements: Mason course sections (and use of Mason classrooms) are not distributed across timeslots and days of the week to efficiently and effectively utilize campus resources. Fall 2017 course section data shows significant	In June 2018, management engaged a consultant to benchmark the University's space allocations, identify and outline space utilization, and make recommendations. Interim findings were reported in September 2018. The consultant is	4/30/18	1/15/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	<p>Management: Frank Strike, Vice President, Facilities and David Moore, Assistant Vice President Budgeting & Planning and Chief Budget Officer, Office of Budget and Planning</p>	<p>classroom underutilization on multiple days of the week and at certain times of day. Scheduling decisions are often made by individual colleges and departments in regards to their reserved classrooms and lacks transparency when university classrooms are requested. This approach may lead to future difficulties as campus resources are strained further with current and planned renovations, strategic initiatives are pursued.</p>	<p>scheduled to present additional findings by December 2018.</p>		
7	<p>Report Name: Athletics Travel Expenditure Documentation</p> <p>Report Date: 2/15/18</p> <p>Management: Brad Edwards, Assistant Vice President – Director of Intercollegiate Athletics</p>	<p>Strengthen Athletics Process to Comply with Travel & Food and Beverage (F&B) Policies: A review of 352 October 2017 travel and non-travel F&B expenditures determined that a significant number of transactions were potentially not compliant or did not provide enough information to properly assess the transaction due to the lack of information or justification. Specific concerns included: missing or incomplete Group Travel Forms or lists of attendees impacting the ability to determine the appropriate per diems required by the Commonwealth were applied; missing or incomplete non-travel F&B transaction documentation; missing, illegible, or non-itemized receipts; among other things.</p>	<p>Intercollegiate Athletics (ICA) continues to strengthen processes to enable enhanced compliance with Mason travel policies and related Commonwealth requirements, and verification of ICA adherence to standards.</p> <p>The new verification process, supported by travel checklists and quality review of per diem exceptions, was implemented for trips after April 2018. A retroactive review of all Spring-sport travel determined much improvement in compliance. Business Office reviews of 2017-18 men's and women's basketball team travel were completed and ~\$29,000 was recovered from non-Commonwealth sources. Future basketball team travel vouchers will be reviewed by the Senior Associate Athletic Director prior to submission for processing. Departmental and coach training was provided in advance of the Fall semester jointly by Fiscal Services and Business Office staff. A new wage Business Office staff position was added to help handle enhanced travel policy compliance.</p> <p>Changes to certain Mason travel policies are effective in October 2018; ICA is working to adjust processes accordingly.</p>	4/30/18	1/15/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
8	<p>Report Name: Employee Time Recordkeeping at INTO Mason</p> <p>Report Date: 6/29/18</p> <p>Management: Dr. Todd Rose, Executive Director, INTO Mason</p>	<p>Enhance Supervisory Approval of Timesheets: University Policy requires supervisors (or designated approvers) to ensure the accuracy and completeness of hours worked and leave reported by deadlines published by Human Resources & Payroll. 49% of timesheets submitted by an employee from January 1, 2016 through November 10, 2017 were not approved by the supervisor; these timesheets were approved via Payroll's override process to ensure the timesheets were included in the applicable payroll processing cycles. Management should ensure that employee timesheets are approved by designated due dates and consider designating an additional approver who has first-hand knowledge of employee work activities.</p>	<p>The organizational structure of the academic unit of INTO Mason will be reviewed to ensure all supervisors have an appropriate level of direct reports to give the necessary level of diligence and management oversight.</p>	1/15/19	1/15/19
9	<p>Report Name: Supplemental Payroll Payments</p> <p>Report Date: 9/5/18</p> <p>Management: Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p>Clarify Supplemental Pay Guidelines for Contract Courses: Supplemental Pay Procedures are not interpreted to cover contract course arrangements. Contract course arrangements are often informally documented (i.e., limited to certain Banner data and course budget information). Formal contractual arrangements are not made with course instructors, even though contract course arrangements fall outside the typically faculty contract. Lack of clarity or misinterpretation of Mason policy may result in irregularities or unjustified faculty workloads (i.e., where faculty or staff are over-extending with contract course work, to the detriment of other primary or secondary job roles) and inequitable or inappropriate pay practices.</p>	<p>The Provost's Office will revise and strengthen the language in the Supplemental Pay Procedures related to compensation for the various types of offerings associated with contract courses. In addition, the Provost's Office will update and standardize employment contracts for the activities that are associated with contract courses.</p>	1/31/19	1/31/19
10	<p>Report Name: Supplemental Payroll Payments</p> <p>Report Date: 9/5/18</p> <p>Management: Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p>Ensure Units Identify All Instructors for Courses in Banner: Three units had at least one instance where faculty instructing courses were not identified in Banner. When all instructors are not captured for a given course, the unit's and university's ability to provide efficient oversight is limited. Management's ability to gain insight from course data is also limited (comparing data from semester to semester or year to year). Furthermore, any reporting to outside entities may not be accurate, depending on the level of information provided.</p>	<p>The Provost's Office is working to strengthen the language in the supplemental pay procedures, as well as other institutional resources (e.g., the language on the Registrar's Site for scheduling coordinators) to ensure the appropriate instructor has been identified in a timely matter.</p>	1/31/19	1/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
11	<p>Report Name: Office of the University Registrar</p> <p>Report Date: 3/7/18</p> <p>Management: Bethany Usher, Associate Provost for Undergraduate Education, Office of the Provost</p>	<p>Update the Academic Course Catalog: Mason maintains a University Catalog of over 8,000 individual courses. In the Fall 2017, Mason had 832 (11%) individual courses that have not been offered within the last four academic years (AY 2014-2018). Furthermore, there were 686 courses in the University Catalog which have never been offered to students.</p>	<p>The Associate Provost of Undergraduate Education has coordinated with school representatives to inactivate approximately 100 undergraduate courses. Opportunities to inactivate additional courses will continue to be evaluated.</p> <p>The Associate Provost of Graduate Education is leading an effort involving the Faculty Senate and Graduate Council to revise the applicable policy to provide a more up-to-date course catalog.</p>	4/30/18	3/31/19
12	<p>Report Name: Office of the University Registrar</p> <p>Report Date: 3/7/18</p> <p>Management: Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p>Evaluate and Implement Process and Oversight Efficiency and Effectiveness Enhancements: Registration transactions that require OUR action (e.g., enrollment adjustments, selective withdrawals, and program and domicile changes) are manual in nature with no secondary review prior to entry in Banner. OUR processes several thousand manual transactions each semester which require faculty and staff approval prior to processing. These transactions included, but were not limited to: course enrollment adjustments; selective withdrawals; domicile appeal changes; and numerous program changes. The established Banner workflow does not provide for a secondary review to ensure data accuracy and appropriate approval. Furthermore, the ability for post-entry quality assurance is limited since underlying Banner data is often limited.</p>	<p>OUR management is continuing to evaluate internal and external, cost-effective solutions that offers better approval workflow and automation. OUR IT has a mix of MicroStrategy reports and other tools which may be appropriate for use. The Registrar has implemented manual quality control checks for select Banner transactions for the Spring 2018 term. A monitoring log was implemented in September 2018, and a monthly dashboard will be provided to the Registrar by January 31, 2019. It is anticipated that domicile appeals will be tracked as part of the scope of the larger Audit Vault initiative by March, 2019.</p>	8/31/18	3/31/19
13	<p>Report Name: Office of the University Registrar</p> <p>Report Date: 3/7/18</p> <p>Management: Michelle Marks, Vice President for Academic Innovation and New Ventures, Office of the Provost</p>	<p>Implement Banner Transactional and Activity Logging: Mason's ability to monitor transactional data and log activity of staff and third party vendors at various levels within Banner is limited. OUR management identified areas where limited or no monitoring exists due to a lack of transactional and activity history, including: student attributes; registration permits and overrides; student holds; academic standing; visa status; segregation of duties or unauthorized transactions; grading activity; and the Banner tables that control the majority of student</p>	<p>In preparation for the installation of "Audit Vault" software to capture Banner activity, the OUR has documented critical monitoring requirements for discussion and implementation with ITS. Even though the software will be installed, it will take many months to identify what will be monitored and develop the logic before the software can be fully deployed. In the interim prior to Audit Vault implementation and full usage, the Registrar has dedicated staff to quality control check and monitor select Banner transactions. A monitoring log was implemented</p>	10/31/18	3/31/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
		data where an erroneous or unapproved change can have a significant impact.	<p>in September 2018, and a monthly dashboard will be provided to the Registrar by January 2019.</p> <p>ITS has begun the process of implementing Banner logging capabilities at the database-level. Use cases have been developed to determine which database tables and records should be logged, and events that trigger alerts, in ITSO's Splunk tool. The OUR is monitoring ITS' progress toward implementing a technical solution and has determined that the remediation efforts are currently on track for March 31, 2019 completion. OUR will continue to provide periodic updates regarding progress of Audit Vault implementation and development of monitoring capabilities.</p>		
14	<p>Report Name: Employee Leave Reporting and Remote Work Agreement</p> <p>Report Date: 8/29/18</p> <p>Management: Sue Tinsman, Assistant Vice President, Payroll, Human Resources/Payroll</p>	<p>Clarify Standard Remote Work Agreement on Allowable Reimbursable Expenses:</p> <p>University Policy #2202, "Flexible Work" and University Policy #2113 govern the administration of telework and remote work programs offered by the university. Any financial arrangements associated with these agreements are at the discretion of the employee's work unit and do not require review and/or approval by Human Resources. University Policies #2202 and #2213 should be reviewed to determine if there are any provisions requiring additional guidance and clarification regarding allowable reimbursable expenses.</p>	Human Resources/Payroll will work with Fiscal Services to review and clarify these policies.	3/31/19	3/31/19
15	<p>Report Name: Office of the Provost: Decentralized IT Management and Security</p> <p>Report Date: 10/23/15</p> <p>Management: Thomas Shifflett, Director, Information Technology</p>	<p>Design and Document Development Methodologies and Procedures:</p> <p>The Provost IT Team has only recently begun to develop a framework of activities, documentation, and project management for system or software acquisition or development on behalf of Provost area units requesting their services. Project development life cycle or project management techniques have been executed <i>ad hoc</i> using informally communicated expectations of standards. While there are numerous development methodologies and none are one size fits all, good development and project management standards is the</p>	The Provost IT Team's original intent was to leverage Information Technology Services' design documentation and methodology. The Provost IT assets and operations were merged with ITS in July 2016. As part of this transition, management is finalizing documentation and implementation steps for using the agile methodology and, for the Banner 8 team, the waterfall methodology. ITS is leveraging work from the Project Management Framework Refresh project to define standard development procedures.	4/30/16	4/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	Services Enterprise Applications	strongest control to help avoid primary causes of project failures.	Enterprise Applications is starting the process of developing a standard set of artifacts, processes and procedures. Mature processes and procedures are expected to be implemented by April 2019.		
16	<p>Report Name: Use of Wiley edu LLP Employees to Process Certain Registration Transactions</p> <p>Report Date: 10/6/17</p> <p>Management: Jennifer Wagner Davis, Senior Vice President for Administration and Finance</p>	<p>Develop Comprehensive Plan to Strengthen Technology Environment: Management recognizes that Mason's existing technology environment presents certain risks to the accomplishment of strategic objectives and to robustly controlling transaction processing.</p> <p>Management should develop and review with executive management a comprehensive plan, with timelines and resource needs, to improve the capability of the existing technology environment to respond flexibly to changes in business models, products and services, processes, and operations while robustly addressing the risks presented.</p>	<p>Management has initiated a number of projects to strengthen Mason's overall technology environment. These projects are in various stages of study, planning, execution, or implementation. They are designed to position ITS to support Smart Growth and are included in ITS' FY19 operational goals. Major projects include the Banner 9 upgrade; Banner Cloud planning; WiFi assessment and planning; IT Security assessment and roadmap; implementation of a data integration platform; development of a robust, secure computing environment to support research; and new IT security policies and controls.</p> <p>By April 2019, ITS plans to update the IT strategy to support the refreshed Mason Strategic Plan. The revised IT Strategic Plan will include milestones, resource requirements, and a three year roadmap of major initiatives.</p>	7/15/18	5/15/19
17	<p>Report Name: IT Governance and Project Prioritization</p> <p>Report Date: 8/7/17</p> <p>Management: Marilyn Smith, Vice President/Chief Information Officer, Information Technology Services</p>	<p>Update IT Project Management Policies and Procedures: Mason's university policies address the procurement, development, implementation, and management of IT projects. These policies need to be reviewed for potential revision as none of the three policies has been reviewed since 2014. Such a review should consider:</p> <ul style="list-style-type: none"> • Distinguishing IT projects requiring technical solutions from projects that do not. • Identifying the SDLC methodologies to be used when developing technical solutions. • Aligning with the most current (2015) ISO 9000 Quality Management Principles standard rather than the 2000 version referenced in policy. 	The Director-ITS Process and Planning has been affixed the responsibility for ensuring that all IT-related policies are reviewed annually, and updated as necessary. Non-substantive revisions have been made and more substantial changes are planned to be processed through the university's standard policy update process during 2018. The Project Management Framework Refresh project (initiated in January 2018 and target completion in June 2019) will satisfy the IT governance audit issues.	12/31/18	6/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
		<ul style="list-style-type: none"> Developing approaches to manage and deliver projects relating to instructional programs, and research projects and initiatives. 			
18	<p>Report Name: IT Governance and Project Prioritization</p> <p>Report Date: 8/7/17</p> <p>Management: Marilyn Smith, Vice President/Chief Information Officer, Information Technology Services</p>	<p>Improve Governance of University IT Projects: The university has several processes for evaluating and prioritizing IT projects for development.</p> <ul style="list-style-type: none"> Prioritization of Strategic and Capital projects that support strategic objectives, improve service capabilities, enhance customer satisfaction, or support new building construction or renovations should consider the capacity of development resources to support the timing and scheduling of the work effort in addition to the already-considered project impact and effort levels. Prioritization of Maintenance and Mandate projects which are required by federal, state, or local governments, or university management, or are needed to continue daily operations should be formally documented. Portfolio Owners prioritize these projects within their respective portfolios and do not always document their prioritization decisions. Management should evaluate the process for prioritizing IT projects that do not impact or involve ITS (i.e., Distributed IT projects); these are prioritized by individual departments. <p>These gaps may result in a scarcity of resources that do not fully consider personnel and scheduling requirements, or the alignment of project resources with university strategic goals. Decentralized IT project spending and activities may not be approved, governed, and appropriately implemented by university management.</p>	<p>As part of ITS continuing to enhance, and strengthen compliance with, the Project Management Framework and the IT governance process, standard methods for ITS to track project resource usage will be implemented; this is expected to be completed by December 2018. Formal procedures to document Maintenance and Mandate prioritization efforts were implemented in March 2018.</p> <p>While IT Governance processes have been developed with an initial focus on projects that directly involve ITS, the processes can be broadly applied to other administrative and academic groups while also acknowledging that project control needs may vary depending on category and scale, and educating the university community will all be critical factors in the success of this effort; this effort is expected to be completed by June 2019.</p>	6/30/19	6/30/19
19	<p>Report Name: IT Governance and Project Prioritization</p> <p>Report Date: 8/7/17</p>	<p>Complete Streamline of IT Project Management Framework: The ITS Portfolio and Project Management Office (PPMO) is updating its methodology (last updated in May 2010) for managing IT projects to streamline project management and system development activities. Although not yet documented, the updated methodology</p>	<p>The PPMO began a project to formalize the refresh of the project management framework in September 2017. Updated templates and procedures, and revised approval processes for each phase gates will be phased-in through Q1 2018. The Project Management Framework Refresh project was initiated in January 2018.</p>	6/30/19	6/30/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
	<p>Management: Marilyn Smith, Vice President/Chief Information Officer, Information Technology Services</p>	<p>is practiced when PPMO staff act as, or provide guidance to, functional project managers. Many aspects of well-recognized strong methodologies are included in the updated methodology; however, there remain further opportunities to strengthen controls to reduce areas of inconsistency in how projects are planned, managed, and executed which may result in scope creep, planning enhancement, and insufficient support from the project sponsor or manager, among other things.</p> <p>Also, distributed IT projects are not subject to PPMO oversight which may result in projects being developed that do not adhere to the university's IT project management methodology.</p>	<p>The new framework is targeted for implementation within ITS by June 2018, and communicated and extended to the broader Mason community over the next year.</p>		
20	<p>Report Name: Supplemental Payroll Payments</p> <p>Report Date: 9/5/18</p> <p>Management: Renate Guilford, Associate Provost, Academic Administration, Office of the Provost</p>	<p>Evaluate Methods to Improve Unit Timeliness of Faculty Contractual Agreements and Banner Approvals:</p> <p>Seventeen individual faculty members had contractual agreements where the unit and/or Office of the Provost's approval of the overload letter was delayed. 106 out of 186 (57%) of job assignments reviewed had Banner approvals (the last required approval) which occurred after the job assignment began (based on the job start date entered in Banner). Approvals should be in place prior to faculty or staff beginning their assignment. If approvals are significantly overdue, compensation may be delayed where work has been performed.</p>	<p>The Provost's Office will remind units three months prior to the start of the semester to submit requests for overloads and work with individual HR representatives in the academic units to provide guidance on the process.</p> <p>The Provost's Office is developing an electronic workflow system that should provide access to create these assignments and approvals done in a timely manner.</p>	6/30/19	6/30/19
21	<p>Report Name: Administrative Management of Sponsored Programs</p> <p>Report Date: 10/11/17</p> <p>Management: Deborah Crawford, Vice President of Research, Office of the Provost</p>	<p>Plan for Scalable Research Administration to Enable Future Growth in Research</p> <p>In our view, Mason's current research administrative processes are not adequate nor scalable to support the nature and extent of research administrative and compliance obligations likely to result from substantial future growth in the volume and value of research awards. A 50% growth of the overall research portfolio, to ~\$150 million, might require an additional \$2.4 million of expenditures (determined on a straight-line basis) to support research administration and compliance activities. As management plans for such growth and sustaining its R1-Highest Research Activity</p>	<p>Management continues to work to develop a comprehensive, scalable plan for research administration to accrue efficiencies offered by contemporary enterprise systems that support research, to adequately support the administrative needs of Mason researchers, and to provide research administrative support best delivered centrally. This plan is being developed in concert with the update of Mason's Strategic Plan and by a working group of stakeholders that includes representatives from Mason's Information Technology Services (ITS), Office of Sponsored Programs (OSP), Research Development,</p>	7/1/18	7/1/19

#	Audit Report	Audit Issue	Status of Management Action	Original Target	Current Target
		<p>classification, we believe there should be concurrent, comprehensive planning for the appropriate mix of people, process, and technology resources to effectively satisfy the current and future nature and extent of research administrative and compliance obligations while enabling faculty and researchers to remain focused on conducting research. In conducting such planning, management should consider multiple areas, including:</p> <ul style="list-style-type: none"> • Alignment, including ensuring that academic unit plans for growing research (and providing appropriate administrative support) are fully aligned with Mason’s strategic plans and goals. • Information technology, including systems, reporting capabilities, and interface automation which impact work process effectiveness and efficiency. • Organizational structures, including the appropriate mix of academic unit and centralized employees, job roles, workloads, time dedicated to research administration activities, and reporting relationships for academic unit research administrators. • Resourcing, including the appropriate level and mix of automation as well as academic unit and centralized employees. 	<p>Integrity, and Assurance (RDIA), the Research Council, and the OSP Advisory Group.</p>		

ITEM NUMBER: V.B.

Review of Office of University Audit Planning

PURPOSE OF ITEM:

This item facilitates the Audit Committee's review of the Office of University Audit's process for establishing risk-based audit plans.

NARRATIVE:

The Office of University Audit uses a 'top-down' and a 'bottom-up' approach to develop its independent risk assessment used for determining priorities for providing assurance services.

- The 'top-down' approach seeks to identify macro-level areas of current and/or potentially emerging interest to stakeholders.
- The 'bottom-up' approach is used to develop a risk-based prioritized frequency of audit coverage across the university through the evaluation of Audit Risk Factors applied to Auditable Units.
 - The potential impact and likelihood of risks related to the following areas were considered: strategic; financial and financial reporting; regulatory compliance; operations; and hazards.

Audit plans are developed which enable the Office of University Audit to be dynamic and flexible in addressing the changing nature of risks facing the university. The 3+6 Audit Plan describes:

- Three months of audit work which is firmly planned to be conducted.
- The subsequent six months which is indicative of audit work likely to be conducted.

Audit plans are reviewed with key members of university management, including the President, Provost, and Senior Vice President – Administration and Finance.

- Their input and feedback is considered and incorporated, where appropriate.

The status of audit plans, including any changes, are communicated at each Audit Committee meeting.

ACTION:

Audit Committee review.



Office of University Audit

Office of University Audit:
Risk Assessment and 3+6 Audit Plan

**Report to Audit Committee
October 10, 2018**

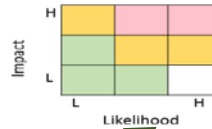
Audit priorities are determined in a dynamic, flexible, risk-based manner using a frequently re-freshed audit risk assessment. Planning is governed by an Audit Policy endorsed by the Committee in 2016; essential elements are:

Top-Down Analysis

- University-level risk brainstorming and monitoring
- Cross-cutting / programmatic risks
- Governance focused
- Environmental scanning basis
- Collaborative, yet independent and objective

Bottom-Up Analysis

- Audit Universe
- Assess risk to determine frequency
 - Impact/Likelihood
- Factors aligned w/ERM
 - Strategic
 - Regulatory compliance
 - Financial and Financial Reporting
 - Operations
 - Hazards



Monitoring

- Environmental Scanning
- Relationships; Management Call Program
- Benchmarking
- Adjust risk assessments and audit plans based on changes in risk

Key Stakeholder Input

- Executives
- University risk leaders
- Audit Committee

Proposed 3+6 Audit Plan

Evaluate Resources

- Resource levels
- Skill needs

Seek Review

- Chairman review
- Committee review

- Engagement risk assessment determines depth (nature, extent and timing) at time of audit
- Use work of others (2LOD) where relevant and appropriate
- Hour budgets are estimates; adjust at time of audit based on engagement risk assessment
- Seek to design audit work across organizations where possible to increase value

Consistent with our June 2018 view, university-level risk areas include:

TOPIC	DESCRIPTION	POTENTIAL INDICATIVE WORK
STRATEGIC PLAN ACHIEVABILITY	The university's strategic plan describes how Mason expects to best serve students, the community, and society over the next decade (to 2024). Processes to assess progress will help management and stakeholders manage plan implementation and measure success.	<ul style="list-style-type: none"> • Monitor strategic plan re-fresh activity. • Monitor development of 'Smart Growth' analysis and strategies. • Audit a College (e.g., Health and Human Services). • Evaluate public/private partnerships (e.g., GGBRI with INOVA and UVA).
RESEARCH INFRASTRUCTURE	The university plans to grow (double) research to sustain a Carnegie Highest Research Activity (R1) classification. Scalable infrastructure capabilities (people, facilities, funding, and processes) need to support planned growth.	<ul style="list-style-type: none"> • Evaluate research administrative, including sponsored program, processes. • Evaluate conflict of interests in research processes. • Evaluate research integrity and assurance processes. • Evaluate processes to incubate research to economic impact. • Assess governance of centers and institutes.
INFRASTRUCTURE AGE AND LIMITS – TECHNOLOGY	The university's core technology infrastructure (including Banner) is aging and is likely to require improvement to appropriately support scalable growth and innovation while ensuring core processing is effective and efficient.	<ul style="list-style-type: none"> • Evaluate IT governance and project prioritization process. • Monitor multi-year Banner improvement projects. • Monitor controlled unclassified information (CUI) environment project.
INFORMATION PROTECTION (CYBER THREATS)	The university holds large volumes of protected (personally identifiable and classified) information in a globally connected, decentralized technology environment.	<ul style="list-style-type: none"> • Evaluate Information Security Program. • Monitor controlled unclassified information (CUI) environment project. • Survey data and IT security in distributed academic unit environments. Validate selected assertions. • Evaluate vulnerability and patch management.
ENROLLMENT CHANGES	Student enrollment processes drive the overall quality and diversity of the university community while sourcing > 50% of university revenues through tuition, fee, room, and board revenues. Success is dependent on achieving an appropriate student size, mix, diversity, and financial capability while managing to limit the impacts of potential (gradual or sharp) changes in enrollment due to competitiveness, relevance, demographics, economics, or other reasons.	<ul style="list-style-type: none"> • Monitor multi-year student experience re-design initiative. • Monitor ADVANCE initiative with NOVA.
ALTERNATIVE DISTRIBUTION CHANNELS	The university is expanding and creating alternative methods of delivering education to increase accessibility and meet the needs of non-traditional students who might have time or financial constraints (e.g., working, family) while pursuing a degree. Significant growth could have potentially large impacts, including on traditional distribution channels and the university's finances.	<ul style="list-style-type: none"> • Monitor development of online distribution arrangement. • Monitor development of One Virginia Network. • Monitor Learning Solutions (executive and professional education programs).
VENDOR MANAGEMENT	Vendors provide varied operational functions to the university, ranging from food and dining, housekeeping, and bookstore services to event and arena management and cloud technology services. Governance and management of vendor risks helps to protect the university in a consistent, risk-focused manner.	<ul style="list-style-type: none"> • Evaluate Vendor Management Program. • Audit key / large vendor arrangements.
INFRASTRUCTURE AGE AND LIMITS – FACILITIES, UTILITIES, ETC.	Important elements of the university's campuses are aging and are likely to require increased levels of maintenance, refurbishment, upgrade, or replacement to sustain facilities which appropriately support the university's innovative learning and research missions. Planning and executing projects involves heightened levels of complexity, large financial resources, and strong management of risks.	<ul style="list-style-type: none"> • Audit Construction Procurement Processes – Academic VII Building • Audit Construction Payment and Change Order Processes – Academic VII Building • Audit Construction Procurement Processes – Robinson Hall Renovation • Audit Construction Payment and Change Order Processes – Robinson Hall Renovation

Risk assessment results highlight areas with potentially high impact.

RISK FACTOR	DESCRIPTION	DISTRIBUTION OF AUDITABLE UNITS																							
STRATEGIC	The risk of this auditable unit to GMU's people, reputation, or financial position, and to the achievement of GMU's Mission, Values, and Strategic Plan objectives arising from ineffective business strategies and tactics; adverse business decisions; insufficient resources, funding, or management focus; ineffective implementation of decisions; or lack of responsiveness to changes in business environment.	<table border="1"> <tr> <td rowspan="3">Impact</td> <td>H</td> <td>15</td> <td>7</td> <td>0</td> </tr> <tr> <td>M</td> <td>25</td> <td>11</td> <td>0</td> </tr> <tr> <td>L</td> <td>14</td> <td>2</td> <td>0</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>M</td> <td>H</td> </tr> <tr> <td colspan="5">Likelihood</td> </tr> </table>	Impact	H	15	7	0	M	25	11	0	L	14	2	0			L	M	H	Likelihood				
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FINANCIAL and FINANCIAL REPORTING	The risk of this auditable unit to GMU's people, reputation, or financial position arising from inadequate or ineffective management of financial-related processes and reporting or external events, including processes upstream from those normally associated with financial aspects of the university. Among other things, this includes risks associated with credit, investments, financings, currencies, financial models, markets, and related transaction processing, accounting, and reporting activities.	<table border="1"> <tr> <td rowspan="3">Impact</td> <td>H</td> <td>3</td> <td>3</td> <td>1</td> </tr> <tr> <td>M</td> <td>7</td> <td>10</td> <td>0</td> </tr> <tr> <td>L</td> <td>42</td> <td>8</td> <td>0</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>M</td> <td>H</td> </tr> <tr> <td colspan="5">Likelihood</td> </tr> </table>	Impact	H	3	3	1	M	7	10	0	L	42	8	0			L	M	H	Likelihood				
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REGULATORY COMPLIANCE	The risk of this auditable unit to GMU's people, reputation, or financial position arising from violations of, or non-compliance with, current and changing laws, regulations, supervisory guidance, or regulatory expectations.	<table border="1"> <tr> <td rowspan="3">Impact</td> <td>H</td> <td>9</td> <td>5</td> <td>0</td> </tr> <tr> <td>M</td> <td>9</td> <td>17</td> <td>0</td> </tr> <tr> <td>L</td> <td>33</td> <td>1</td> <td>0</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>M</td> <td>H</td> </tr> <tr> <td colspan="5">Likelihood</td> </tr> </table>	Impact	H	9	5	0	M	9	17	0	L	33	1	0			L	M	H	Likelihood				
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OPERATIONS	The risk of this auditable unit to GMU's people, reputation, or financial position arising from inadequate or failed internal processes, people, and systems or from external events. This includes the following types of risk: technology-related risk, which is the risk arising from the University's overall use of technology (whether centralized or decentralized) and includes, among other things, its governance, processes, infrastructure, applications, security, and reliability; and legal risk, which is the risk arising from defective transactions, litigation or claims made, or the failure to protect university assets.	<table border="1"> <tr> <td rowspan="3">Impact</td> <td>H</td> <td>5</td> <td>9</td> <td>1</td> </tr> <tr> <td>M</td> <td>10</td> <td>26</td> <td>1</td> </tr> <tr> <td>L</td> <td>12</td> <td>8</td> <td>2</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>M</td> <td>H</td> </tr> <tr> <td colspan="5">Likelihood</td> </tr> </table>	Impact	H	5	9	1	M	10	26	1	L	12	8	2			L	M	H	Likelihood				
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HAZARD	The risk of this auditable unit to GMU's people, reputation, or financial position arising from inadequate or failed internal processes, people, and systems or from external events. This includes the following types of risk: (i) health, safety, and environmental risks, which is the risk arising from processes or events that potentially cause damage, harm, or adverse effects to someone (e.g., health) or something (e.g., property).	<table border="1"> <tr> <td rowspan="3">Impact</td> <td>H</td> <td>1</td> <td>0</td> <td>0</td> </tr> <tr> <td>M</td> <td>7</td> <td>9</td> <td>1</td> </tr> <tr> <td>L</td> <td>55</td> <td>1</td> <td>0</td> </tr> <tr> <td colspan="2"></td> <td>L</td> <td>M</td> <td>H</td> </tr> <tr> <td colspan="5">Likelihood</td> </tr> </table>	Impact	H	1	0	0	M	7	9	1	L	55	1	0			L	M	H	Likelihood				
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The risk-assessed Audit Universe, sorted by Executive:

#	Executive	Group	Area	Str	Fin	Comp	Opns	Haz	Audit Work: FY 2012 to Present
1	Provost	Antonin Scalia School of Law		Mod	Low	Mod	Mod	Low	5/17/18 – Data & Security Risk Assessment Survey - Colleges
2	Provost	College of Education & Human Development		Mod	Low	Mod	Mod	Low	5/17/18 – Data & Security Risk Assessment Survey – Colleges; 3/30/17 - Confucius Institute; 8/28/15 - VISTA Grant
3	Provost	College of Health & Human Services		Mod	Low	Mod	High	Low	5/17/18 – Data & Security Risk Assessment Survey – Colleges; 5/11/17 - College of Health & Human Services
4	Provost	College of Humanities & Social Sciences		Mod	Low	Mod	High	Low	5/17/18 – Data & Security Risk Assessment Survey – Colleges; 11/14/13 - Decentralized IT Management
5	Provost	College of Science		Mod	Low	Mod	High	Mod	5/17/18 – Data & Security Risk Assessment Survey – Colleges; 9/10/13 - Biomedical Research Laboratory - Physical Security
6	Provost	College of Visual & Performing Arts		Mod	Low	Mod	Mod	Low	5/17/18 – Data & Security Risk Assessment Survey – Colleges; 4/11/16 - Hylton Performing Arts Center
7	Provost	Krasnow Institute for Advanced Study		Low	Low	Mod	Mod	Low	
8	Provost	Schar School of Policy & Government		Mod	Low	Mod	Mod	Low	5/17/18 – Data & Security Risk Assessment Survey - Colleges
9	Provost	School for Conflict Analysis & Resolution		Low	Low	Mod	Low	Low	
10	Provost	School of Business		Mod	Low	Mod	Mod	Low	5/17/18 – Data & Security Risk Assessment Survey - Colleges
11	Provost	Volgenau School of Engineering		Mod	Low	Mod	High	Low	5/17/18 – Data & Security Risk Assessment Survey - Colleges
12	Provost	Academic Administration	Research - Economic Development	High	Low	Low	Low	Low	
13	Provost	Academic Administration	Research - Integrity & Assurance	Mod	Low	Mod	Mod	Low	4/9/18 – Conflict of Interests in Research Processes; 7/8/14 - Human and Animal Subjects Research Compliance

Appendix: Risk Assessment Details

#	Executive	Group	Area	Str	Fin	Comp	Opns	Haz	Audit Work: FY 2012 to Present
14	Provost	Academic Administration	Research - Sponsored Programs Administration	Mod	High	Mod	Mod	Low	Continuous Auditing – Reconciliations; 10/11/17 - Administrative Management of Sponsored Program Awards; 5/24/16 - Federally-Sponsored Program Reconciliations; 2/18/13 - Sponsored Research Reconciliation Policy; 2/18/13 - Sponsored Research Payroll Certifications; 1/19/12 - Research and Development Grants and Contracts
15	Provost	Academic Administration	University Libraries	Low	Low	Low	Low	Low	5/17/18 – Data & Security Risk Assessment Survey - Colleges
16	Provost	Academic Innovation and New Ventures		High	Low	Mod	Mod	Low	
17	Provost	Enrollment Services	Admissions & Enrollment Planning	Mod	Low	Low	Mod	Low	11/6/15 - Decentralized IT Management
18	Provost	Enrollment Services	Registrar	Low	Low	High	Mod	Low	3/7/18 - Office of University Registrar; 10/16/17 – Use of Third Party Employees to Process Registration Transactions; 3/5/13 - Office of University Registrar; 6/11/12 - Enrollment Management;
19	Provost	Enrollment Services	Student Academic Affairs & Advising	Low	Low	Low	Low	Low	
20	Provost	Enrollment Services	Student Financial Aid	Low	Mod	Mod	Low	Low	5/8/15 - Decentralized IT Management; 1/28/13 - Student Financial Aid
21	Provost	Academic Administration	Center for Global Education	Low	Low	Low	Low	Mod	
22	Provost	Institutional Research and Reporting		Mod	Low	Low	Mod	Low	
23	Provost	Instructional Support		Low	Low	Low	Low	Low	
24	Provost	INTO Mason		Low	Low	Low	Low	Low	
25	Provost	Mason Korea		Mod	Low	Low	Low	Mod	
26	Provost	Mason Learning Solutions (Executive & Professional Education)		Low	Low	Low	Mod	Low	
27	Provost	Smithsonian Mason School of Conservation		Low	Low	Low	Low	Low	
28	Provost	University Life	Health & Wellness	Low	Low	Low	Mod	Mod	8/21/14 - Aquatic and Fitness Center
29	Provost	University Life	Housing and Residential Life	Mod	Low	Low	Mod	Mod	7/20/16 - Housing Facilities Housekeeping and Operations Unit; 6/11/12 - Housing and Residence Life
30	Provost	University Life	Recreations	Low	Low	Low	Low	Low	2/10/17 - Review of Freedom Aquatic and Fitness Center Membership Dues
31	Provost	University Life	Student Organizations	Low	Low	Low	Low	Mod	
32	Provost	Academic Administration	Provost Activities	Mod	Low	Mod	Mod	Low	10/23/15 - Decentralized IT Management

Appendix: Risk Assessment Details

#	Executive	Group	Area	Str	Fin	Comp	Opns	Haz	Audit Work: FY 2012 to Present
33	Administration	Budget and Planning	Budgeting and (Financial) Planning	High	Mod	Mod	Low	Low	
34	Administration	Fiscal Services	Accounts Payable	Low	Mod	Mod	Mod	Low	
35	Administration	Fiscal Services	Financial Administrative Systems	Low	Low	Low	Low	Low	3/17/17 - Internal Control Certification and Supporting ARMICS Related Activities
36	Administration	Fiscal Services	General Accounting	Low	High	Mod	Mod	Low	
37	Administration	Fiscal Services	Purchasing and Central Receiving	Low	Mod	Mod	Low	Low	2/20/12 - Purchasing Level II Compliance
38	Administration	Fiscal Services	Student Fiscal Services	Low	Mod	Mod	Mod	Low	8/15/13 - Cashier's Office
39	Administration	Human Resources and Payroll	Human Resources	High	Low	Mod	Mod	Low	
40	Administration	Human Resources and Payroll	Payroll & Benefits	Mod	Mod	Mod	Mod	Low	10/23/15 - Employee Benefits
41	Administration	Information Technology Services	Enterprise Applications / Banner Account Management	Low	Mod	Low	High	Low	3/18/14 - Banner Application and Security-Student Accounts
42	Administration	Information Technology Services	Enterprise Applications / Banner Development, Change Management, and Operations (SDLC)	Low	Low	Low	Low	Low	9/5/12 - Banner Local (In-House) Software Development
43	Administration	Information Technology Services	Enterprise Applications / Database, Middleware, and ERP Support	Low	Mod	Low	High	Low	
44	Administration	Information Technology Services	Enterprise Infrastructure / Enterprise Servers and Messaging (+ logical servers)	Low	Mod	Low	High	Low	2/2/16 - Enterprise Servers and Messaging: Operating Systems Security; 1/18/12 - LDAP / MESA; 9/10/15 MESA Technical Point of Contact and Share Administrator Account Management
45	Administration	Information Technology Services	Enterprise Infrastructure / Technology Support Services	Low	Low	Low	Low	Low	
46	Administration	Information Technology Services	IT Security	Mod	Low	Mod	High	Low	6/27/18 – Proposed Mapping of NIST 800-171 and NIST 800-53 Controls; 2/15/18 – Proposed Policies for CUI Environment; 2/8/17 - Information Security Program; 9/9/13 - Information Security Management - Boundary Protection
47	Administration	Information Technology Services	Learning Support Services / Online Learning Resources	Low	Low	Low	Low	Low	
48	Administration	Information Technology Services	Network IT Infrastructure	Mod	Mod	Low	High	Low	
49	Administration	Information Technology Services	Physical IT Infrastructure (+ physical servers)	Low	High	Low	Low	Low	9/6/12 - Aquia Data Center
50	Administration	Information Technology Services	Strategic Business Operations / Business Continuity & Recovery	Mod	Low	Low	Mod	Low	
51	Administration	Information Technology Services	Strategic Business Operations / Finance and Human Resources	Low	Low	Low	Low	Low	
52	Administration	Information Technology Services	Strategic Business Operations / Process and Planning	Mod	Low	Low	High	Low	8/7/17 - IT Governance and Project Prioritization; 3/28/13 - Enterprise Project Management Framework and System

Appendix: Risk Assessment Details

#	Executive	Group	Area	Str	Fin	Comp	Opns	Haz	Audit Work: FY 2012 to Present
53	Administration	Facilities	Campus Planning	High	Low	Low	Low	Low	
54	Administration	Facilities	Construction Planning and Project Management	High	High	High	Mod	Mod	6/20/17 - Construction Payments and Change Orders Process: Academic VII Building; 7/22/16 - Construction Procurement Process: Robinson Hall Demolition / Construction and Utility Distribution Infrastructure Project; 5/17/16 - Construction Procurement and Change Order Processing - Academic VII / Health & Human Services Building; 9/27/12 - Construction Project Close-Out Process
55	Administration	Facilities	Real Estate (Lease) Administration	Low	Mod	Low	Low	Low	
56	Administration	Facilities	Utilities and Facilities Maintenance	Low	Low	Low	Mod	Low	4/22/14 - Facilities Service Contracts
57	Administration	Operations	Campus Police	Low	Low	Low	Low	Mod	
58	Administration	Operations	Parking, Shuttles, and Transportation	Low	Low	Low	Mod	Low	11/11/14 - Arlington Campus Parking Services
59	Administration	Safety, Emergency, and Enterprise Risk Management	Enterprise Risk Management	High	Low	Low	Mod	Low	
60	Administration	Safety, Emergency, and Enterprise Risk Management	Environmental Health and Safety	Low	Low	Mod	Low	Mod	12/17/15 - Laboratory Safety
61	Administration	Safety, Emergency, and Enterprise Risk Management	Risk Management (Insurance)	Low	Low	Low	Low	Low	
62	Administration	University Services	Eagle Bank Center	Low	Low	Low	Mod	Low	
63	Administration	University Services	Food-Related Services; including related facilities and maintenance (& Independent Food)	Low	Low	Low	Mod	Mod	
64	Administration	University Services	Mason Card	Low	Low	Low	Low	Low	
65	Administration	University Services	Print and Mail Services	Low	Low	Low	Low	Low	
66	Administration	University Services	Retail-Related Services (& Independent Retail)	Low	Low	Low	Mod	Low	
67	Athletics	Intercollegiate Athletics	External Affairs, Fund Raising and Funds Management	Low	Mod	Low	Mod	Low	
68	Athletics	Intercollegiate Athletics	Student-Athlete Processes	Low	Mod	High	Mod	Mod	11/5/13 - Intercollegiate Athletics Student-Athlete Financial Aid
69	Comm & Market	Communications and Marketing	Communications and Marketing	Mod	Low	Low	Mod	Low	

Appendix: Risk Assessment Details

#	Executive	Group	Area	Str	Fin	Comp	Opns	Haz	Audit Work: FY 2012 to Present
70	Compliance	Compliance, Diversity and Ethics		Mod	Low	High	Mod	Low	12/18/15 - Analysis of Mason's Sexual Harassment and Misconduct Policy and Procedures
71	Development	University Development	Alumni Relations & Development	Mod	Low	Low	Low	Low	
72	Govt & Comm Relations	Government and Community Relations		Mod	Low	Mod	Low	Low	
73	President	Legal Services	Legal Services	Low	Low	High	Mod	Low	
74	President	President's Office		Mod	Low	Low	Low	Low	6/30/14 - Senior Executive Travel; 8/14/12 - President's Office Expenses



Academic Programs, Diversity and University Community Committee – October 10, 2018

George Mason University Board of Visitors

I. Call to Order

- A. 2018-OCT-10 APDUC Agenda FINAL.docx

II. Approval of Minutes

- A. Approval of Academic Programs, Diversity and University Community Committee Minutes: May 3, 2018 ACTION ITEM

- 1. APDUC Minutes 2018-MAY-03.docx

III. New Business

- A. Provost's Update D. Wu
- B. ADVANCE Partnership Update (M. Marks)
- C. Student Experience Redesign (SER) D. Burge, M. Marks, R. Pascarell, M. Smith
- D. New Programs Action Item
 - 1. LLM - Cyber, Intelligence and National Security Law
 - a. BOV Open LLM CINS.docx
 - b. LLM CINS for BOV 092618.docx
 - 2. MS - Climate Science
 - a. BOV Open MS Climate Science.docx
 - b. MS - Climate Science.pdf
 - 3. Ph.D. - Business M. Peiperl, K. Rockmann
 - a. BOV Open PhD Business.docx
 - b. PhD Business 092618 for BOV.pdf

- E. Faculty Actions ACTION ITEM

- 1. Elections of New Tenured Hires
 - a. 1-BOV Elections Documents October 2018.pdf

F. Faculty Announcements

- 1. Appointment of Faculty
 - a. 2-BOV Appointment of Faculty October 2018.pdf
 - 2. Appointment of Administrative and Professional Faculty
 - a. 3-BOV Appointment of Administrative and Professional Faculty

3. Appointment/Reappointment of Deans, Department Chairs and School Directors

- a. 4-BOV Appt-Reappt of Deans-Direct and Dept Chairs-School Direct October 2018.pdf

4. Renewals and Reappointments

- a. 5-BOV Reappointment Documents October 2018.pdf

5. Separations

- a. 6-BOV Separations Documents October 2018.pdf

6. Other Announcements

- a. 7-BOV Other Announcement Documents October 2018.pdf

7. Summary of Faculty Actions and Announcements

- a. BOV Summary_Sheet_October 2018.pdf

IV. Annual Reports

A. 2017-2018 Degrees Awarded

A. Detlev

- 1. BOV Degree Awards 1718_Final.docx

B. Fall 2018 Enrollment Update

A. Detlev

- 1. Fall 2018 BOV Admissions & Student Profile.docx

V. Adjournment

GEORGE MASON UNIVERSITY
BOARD OF VISITORS
Academic Programs, Diversity, and University Community Committee Meeting
Wednesday, October 10, 2018
A G E N D A

- I. Call to Order**

- II. Approval of Academic Programs, Diversity and University Community Committee Minutes from May 3, 2018 (Action Item)**

- III. New Business**
 - A. Provost's Update (D. Wu)
 - B. ADVANCE Partnership Update (M. Marks)
 - C. Student Experience Redesign (D. Burge, M. Marks, R. Pascarell, M. Smith)
 - D. New Programs
 - 1. LLM – Cyber, Intelligence and National Security Law
 - 2. MS – Climate Science
 - 3. Ph.D. - Business
 - E. Faculty Actions
 - 1. Elections of New Tenured Hires
 - F. Faculty Announcements
 - 1. Appointment of Faculty
 - 2. Appointment of Administrative and Professional Faculty
 - 3. Appointment/Reappointment of Deans, Department Chairs and School Directors
 - 4. Renewals and Reappointments
 - 5. Separations
 - 6. Other Announcements
 - 7. Summary of Faculty Actions and Announcements

- IV. Annual Report**
 - A. 2017-18 Degrees Awarded (A. Detlev)
 - B. Fall 2018 Enrollment Update (A. Detlev)

- V. Adjournment**

GEORGE MASON UNIVERSITY
BOARD OF VISITORS
Academic Programs, Diversity & University Community Committee

MINUTES

Thursday, May 3, 2018
9:30 AM – 10:25 AM
Merten Hall, Fairfax Campus

PRESENT: Rector: Tom Davis; Chair: Karen Alcalde; Visitors: Horace Blackman, Claire Dvoskin, Dave Petersen, Nancy Prowitt and Shawn Purvis; Faculty Senate Chair: Keith Renshaw; Student Representatives David Kanos and Andrew Quillen; Faculty Representative: Jill Nelson; Staff Representatives: Provost S. David Wu, Rose Pascarell and Julian Williams.

ABSENT: Vice Chair: Bob Witeck; Visitors: Mahfuz Ahmed, Anjan Chimaladinne, Steve Cumbie, Tracy Schar and Lisa Zuccari.

I. The meeting was called to order by Chair Karen Alcalde at 9:32 AM.

II. Approval of Minutes (Action Item)

It was **MOVED** by Visitor Purvis and **SECONDED** by Visitor Petersen that the minutes from the March 1 meeting be approved. **MOTION CARRIED UNANIMOUSLY.**

III. New Business

A. Provost's Update

S. David Wu – Provost and Executive Vice President

Provost Wu provided updates on ongoing initiatives that create purposeful learning experiences while aligning support services to afford all students with the opportunity to enrich their education, then framed the conversation for the day.

B. Strategic Enrollment Update – Smart Growth and Student Experience Redesign

David Burge – Vice President, Enrollment Management

Mason is engaged in enrollment planning to support strategic goal #4 of 100,000 career-ready graduates, increasing VA and out-of-state enrollments by FY 2024 to 42,885 students, assuming ADVANCE gains, online programs and new international students (7,000 new students; 5,300 on campus + approx. 500 new faculty and 500 new staff). Growth is bringing a more diverse student body, and Mason's goal is to scale services to support everyone, not just campus-based traditional residential students. Visibility into institutional data across the student lifecycle and a systematic, data-driven approach to managing will help deliver on our promise. Mason will use technology to put the student in the middle of a care network that better connects students to essential offerings and provides support from the very beginning of the student journey. Improved data analytics and streamlined processes will improve service, decrease service cost per student and improve retention and graduation rates, as well as support Smart Growth strategy.

C. ADVANCE Partnership Update

Michelle Marks – Vice President, Academic Innovation and New Ventures

ADVANCE students benefit from success coaching, a defined pathway to a bachelor's degree, cost savings, streamlined admissions and financial aid, early access to Mason, and employment focus through internships and workplace competencies. They will also engage in student life at both institutions. The credit hour rate for ADVANCE students is the same, but the average student will obtain

a bachelor's degree at a lower overall cost by minimizing the number of credits taken that do not apply directly to a degree. Now: 21 ADVANCE curricular pathways in Phase 1.0 of the project; next year: 50.

D. Student Career Outcomes

Rose Pascarell – Vice President, University Life

Class of 2017 overall career outcomes rate climbed to 81% with 84% of employed graduates in positions related to their career goals. 90% of graduates are employed locally, and those employed full time have a median first year salary plus bonus at \$59,000. 74% of graduating student participated in experiential learning (internships, co-ops, research, etc.) related to their career goals.

E. Faculty Handbook Updates (Action Item)

Keith Renshaw – Chair, Faculty Senate

It was **MOVED** by Visitor Dwoskin and **SECONDED** by Visitor Petersen that the updates proposed to *Faculty Handbook* be approved. **MOTION CARRIED UNANIMOUSLY.**

F. Student Representative Remarks

David Kanos – Undergraduate Student, Government and International Politics

Andrew Quillen – Graduate Student, Public Policy

Mr. Kanos and Mr. Quillen thanked the Board, university administration and key people at Mason who supported them through the educational process.

G. Faculty Actions (Action Item)

Chairperson Alcalde called for a **MOTION** to approve the actions; Rector Davis **MOVED**; and Visitor Blackman **SECONDED** the following faculty actions:

1. Promotion and/or Tenure
2. Conferral of Emeritus/Emerita Status
3. Elections of New Tenured Hires

The **MOTION CARRIED UNANIMOUSLY.**

H. Faculty Announcements

Faculty announcements were acknowledged for the Committee's benefit. No further discussion was held.

IV. Adjournment

Chairperson Alcalde called for a **MOTION** to adjourn the meeting; Rector Davis **MOVED**; and Visitor Dwoskin **SECONDED**. The meeting adjourned at 10:24 AM.

Respectfully submitted,



Amber Hannush
Secretary Pro Tem

ITEM NUMBER:

Master of Laws (LLM) in Cyber, Intelligence and National Security Law

PURPOSE OF THE ITEM:

A proposal to establish a new Master of Laws (LLM) in Cyber, Intelligence and National Security Law has been prepared for submission to the State Council of Higher Education for Virginia (SCHEV). Prior to SCHEV submission, Board action is required.

APPROPRIATE COMMITTEE:

Academic Programs, Diversity, and University Community Committee

BRIEF NARRATIVE:

The Scalia Law School requests permission to establish a new professional degree.

Cyber law is the law that governs activity (commercial, governmental, and private) across interconnected computer networks, including the treatment of data, privacy rights, cybersecurity, and national sovereignty in the cyber arena. Intelligence & National Security law generally covers governmental intelligence collection efforts and efforts to provide for the national defense, including the division of power among the three governmental branches to conduct intelligence and national security operations, constitutional protections enjoyed by private citizens, the laws of armed conflict, maritime and space law, immigration, refugee, and asylum matters.

The purpose of the proposed LLM in Cyber, Intelligence & National Security Law is to provide students (who must already hold the Juris Doctor, or JD) with in-depth study of cyber, intelligence and national security issues, both established and developing, from the best cyber, intelligence, national security law faculty in the world, and to provide them with the tools they need for specialized careers in these domains. An LLM in a specialized field of this nature allows early-career lawyers a competitive edge in seeking first employment, whereas for mid-career lawyers, it may allow them to change practices or professional focus.

REVENUE IMPLICATIONS:

The program will be revenue-neutral at launch. The program will not require the hiring of new faculty, new equipment, or new space to operate.

STAFF RECOMMENDATION:

Staff recommends approval of the proposed program.

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA

Program Proposal Cover Sheet

1. Institution George Mason University	2. Program action (Check one): New program proposal <input checked="" type="checkbox"/> Spin-off proposal <input type="checkbox"/> Certificate proposal <input type="checkbox"/>
3. Title of proposed program Cyber, Intelligence & National Security Law	4. CIP code 22.0209
5. Degree designation Master of Laws (LLM)	6. Term and year of initiation Fall 2019
7a. For a proposed spin-off, title and degree designation of existing degree program	
7b. CIP code (existing program)	
8. Term and year of first graduates Spring 2020	9. Date approved by Board of Visitors
10. For community colleges: date approved by local board date approved by State Board for Community Colleges	
11. If collaborative or joint program, identify collaborating institution(s) and attach letter(s) of intent/support from corresponding chief academic officers(s)	
12. Location of program within institution (complete for every level, as appropriate). Departments(s) or division of <u>George Mason University</u> School(s) or college(s) of <u>Antonin Scalia Law School</u> Campus(es) or off-campus site(s) <u>Arlington Campus</u>	

Distance Delivery (web-based, satellite, etc.) **Two courses included in the proposed curriculum have a web-based delivery option. Additional courses could be added in future.**

13. Name, title, telephone number, and e-mail address of person(s) other than the institution's chief academic officer who may be contacted by or may be expected to contact Council staff regarding this program proposal.

Alison H. Price, Senior Associate Dean
(703) 993-8264, aprice1@gmu.edu

Adriana Vito, Director of Graduate Studies,
(703) 993-8853, avito@gmu.edu

Nuno Garoupa, Faculty Director of Graduate Studies
(703) 993-8184, ngaroup@gmu.edu

Claudia Rector, Assistant Provost for Academic Affairs
(703) 993-8679, crector@gmu.edu

TABLE OF CONTENTS

DESCRIPTION OF THE PROPOSED PROGRAM.....	1
PROGRAM BACKGROUND.....	1
MISSION.....	3
ONLINE DELIVERY	4
ACCREDITATION – SACSCOC	4
ADMISSION CRITERIA	5
TARGET POPULATION	5
CURRICULUM.....	6
STUDENT RETENTION AND CONTINUATION PLAN	8
TIME TO DEGREE	8
FACULTY	9
ADVISORY BOARD	9
PROGRAM ADMINISTRATION.....	10
STUDENT ASSESSMENT	10
PROGRAM ASSESSMENT.....	14
BENCHMARKS OF SUCCESS	14
EXPANSION OF EXISTING PROGRAMS.....	15
RELATIONSHIP TO EXISTING DEGREE PROGRAMS	15
COLLABORATION OR STANDALONE	15
JUSTIFICATION FOR THE PROPOSED PROGRAM	15
RESPONSE TO CURRENT NEEDS	15
EMPLOYMENT DEMAND.....	17
STUDENT DEMAND	18
DUPLICATION.....	19
PROJECTED RESOURCE NEEDS.....	22
RESOURCE NEEDS.....	22
RESOURCE NEEDS PARTS A-D.....	24
APPENDICES.....	28
APPENDIX A – SAMPLE PLAN OF STUDY	A-1
APPENDIX B – COURSE DESCRIPTIONS	B-1
APPENDIX C – FACULTY CURRICULUM VITAE (ABBREVIATED).....	C-1

Description of the Proposed Program

Program Background

George Mason University proposes the establishment of a Master of Laws (LLM) in Cyber, Intelligence & National Security Law. The proposed program will reside in the Scalia Law School, Arlington, Virginia. If approved, the proposed program will be offered through a combination of core courses and restricted electives in full-time, part-time, day, and evening formats. The target start date is Fall 2019; however, since ABA acquiescence is also required, the start may be delayed until Spring 2020.

Cyber, Intelligence & National Security Law Generally

Cyber law is the law that governs activity (commercial, governmental, and private) across interconnected computer networks.¹ Given the newness of the Internet and related phenomenon, the law in this area is evolving at a rapid pace, but areas of particular interest include the treatment of data, privacy rights, cybersecurity, and national sovereignty in the cyber arena.² Intelligence & National Security law generally covers governmental intelligence collection efforts and efforts to provide for the national defense.³ Topics of interest in this field include, but are not limited to, the division of power among the three governmental branches to conduct intelligence and national security operations, constitutional protections enjoyed by private citizens, the laws of armed conflict, maritime and space law, immigration, refugee, and asylum matters.⁴ Given the ever increasing connectivity of all aspects of modern life, cyber issues naturally dovetail with intelligence and national security issues.⁵

General Purpose

The purpose of the proposed LLM in Cyber, Intelligence & National Security Law is to provide students with in-depth study of cyber, intelligence and national security issues, both established and developing, from the best cyber, intelligence, national security law faculty in the world, and to provide them with the tools they need for specialized careers in these domains. George Mason wants to be the forefront of this degree for the legal industry.

The LLM Degree

The LLM degree is an internationally recognized postgraduate law degree. In order to be eligible for an LLM degree program, candidates must earn a first degree in law. In the United States, the

¹ <https://thelawdictionary.org/cyberlaw/>;

<https://commons.erau.edu/cgi/viewcontent.cgi?article=1373&context=adfsf>.

² https://www.rsaconference.com/writable/presentations/file_upload/law-t09-hot-topics-in-cyber-law-2017.pdf;

<https://www.rsaconference.com/events/us18/agenda/sessions/9769-Hot-Topics-In-Cyber-Law-2018>;

<https://commons.erau.edu/cgi/viewcontent.cgi?article=1373&context=adfsf>.

³ <https://www.law.gwu.edu/national-security-us-foreign-relations-law>;

<https://georgetownlawjournal.org/articles/63/cyber-law-of-nations/pdf>.

⁴ <https://www.law.gwu.edu/national-security-us-foreign-relations-law>;

<https://georgetownlawjournal.org/articles/63/cyber-law-of-nations/pdf>.

⁵ <https://www.csis.org/topics/cybersecurity-and-technology/intelligence-surveillance-and-privacy>;

<https://www.brookings.edu/opinions/the-military-role-in-national-cybersecurity-governance/>;

<https://www.repository.law.indiana.edu/cgi/viewcontent.cgi?referer=https://duckduckgo.com/&httpsredir=1&article=2486&context=facpub>; <https://digitalcommons.pepperdine.edu/cgi/viewcontent.cgi?article=1013&context=naalj>.

first degree in law is the professional Juris Doctor (JD) graduate degree. In most other regions of the globe, the first degree in law is the four-to-five year Bachelor of Laws (LLB) undergraduate degree. Both the JD and LLB are general law degrees. “While JD [or LLB] degrees provide students with the knowledge necessary to become lawyers through a broad, general education of basic legal principles, concepts, and theories, LLM degrees provide students with advanced study and specialization in a particular topic of law.”⁶ “The LLM degree, therefore, denotes a legal professional who has acquired advanced, specialized legal training.”⁷

The LLM provides “early-career lawyers with a competitive edge over other candidates, while for many mid-career lawyers, an LLM degree may allow them to successfully switch practices or expand their practice to include international clients.”⁸

The Value of a George Mason LLM in Cyber, Intelligence & National Security

Antonin Scalia Law School at George Mason is uniquely suited to provide the proposed degree program as it has emerged as a global leader in national security research, teaching, and policy matters. Because of increased attention to cyber, intelligence, and national security issues and the growing number of faculty members with expertise in this area of law, the law school founded the National Security Institute in 2017.⁹

NSI’s mission statement highlights the central role it will play in the development of LLM program and working with its students and graduates:

The National Security Institute (NSI) at George Mason University’s Antonin Scalia Law School is dedicated to finding real-world answers to national security law and policy questions.¹⁰

NSI strives to provide balance to the public discourse on the most difficult national security challenges facing the United States and its allies. NSI is a platform for research, teaching, scholarship, and policy development that incorporates a realistic assessment of the threats facing the United States and its allies as well as an appreciation of the legal and practical challenges facing U.S. intelligence, defense, law enforcement, homeland security, and cybersecurity communities.¹¹

During its first year of operation, NSI has added many prominent national security professionals to its advisory board, including a former CIA Director,¹² a former NSA Director (and former Founding Commander of U.S. Cyber Command),¹³ a former U.S. Attorney

⁶ <http://www.lawyeredu.org/LLM-degree.html>

⁷ <http://www.lawyeredu.org/LLM-degree.html>

⁸ <http://www.lawyeredu.org/LLM-degree.html>

⁹ <http://nationalsecurity.gmu.edu/wp-content/uploads/2018/05/UPDATED-FACT-SHEET-04.2018.pdf>

¹⁰ <https://nationalsecurity.gmu.edu/about-us/mission-statement/>

¹¹ <https://nationalsecurity.gmu.edu/about-us/mission-statement/>

¹² <https://nationalsecurity.gmu.edu/general-michael-hayden-ret/>

¹³ <https://nationalsecurity.gmu.edu/general-ret-keith-alexander/>

General,¹⁴ a former Director of the National Counterterrorism Center,¹⁵ a former Director of the National Geospatial-Intelligence Agency,¹⁶ a former Chairman of the House Intelligence Committee,¹⁷ former General Counsels of the CIA,¹⁸ NSA,¹⁹ Navy,²⁰ Department of Homeland Security,²¹ and Office of the Director of National Intelligence,²² former majority and minority staff directors of the House Intelligence Committee,²³ two former Counterterrorism Advisors to the President,²⁴ and three Silicon Valley venture capitalists that focus on cybersecurity.²⁵ The advisory board will provide guidance to the faculty and school on the LLM in Cyber, Intelligence & National Security.

As both the law school and NSI have expanded their programming, course work, faculty, and prominence in this field, the law school has seen a demand for an LLM in Cyber, Intelligence & National Security from both US JD graduates who wish to specialize and from international LLB graduates who hope to begin new careers in this field.

In particular, the law school has identified a growing population of military lawyers assigned to the Pentagon and the headquarters of U.S. Cyber Command, as well as intelligence community lawyers assigned to CIA and NSA, all of which are located in the Washington, DC metro area.

Specifically, the law school expects the demand for lawyers with specialized educational expertise in the areas covered by the proposed LLM to grow in the Washington, DC metro area as cyber and intelligence operations expand and as the new headquarters element for U.S. Cyber Command is stood up in nearby Fort Meade, MD.

Mission

George Mason University Mission Statement²⁶:

“A public, comprehensive, research university established by the Commonwealth of Virginia in the National Capital Region, we are an innovative and inclusive academic community committed to creating a more just, free, and prosperous world.”

“Innovative”

The proposed program is innovative in that it is the first of its kind to be offered in the Commonwealth and the first to acknowledge the interplay between cyber and intelligence and national security law in the United States.

¹⁴ <https://nationalsecurity.gmu.edu/michael-b-mukasey/>

¹⁵ <https://nationalsecurity.gmu.edu/matt-olsen/>

¹⁶ <https://nationalsecurity.gmu.edu/letitia-a-long/>

¹⁷ <https://nationalsecurity.gmu.edu/mike-rogers/>

¹⁸ <https://nationalsecurity.gmu.edu/caroline-krass/>

¹⁹ <https://nationalsecurity.gmu.edu/stewart-baker/>

²⁰ <https://nationalsecurity.gmu.edu/frank-r-jimenez/>

²¹ <https://nationalsecurity.gmu.edu/joe-whitley/>

²² <https://nationalsecurity.gmu.edu/benjamin-powell/>

²³ <https://nationalsecurity.gmu.edu/michael-allen/>; <https://nationalsecurity.gmu.edu/heather-molino/>

²⁴ <https://nationalsecurity.gmu.edu/lisa-o-monaco/>; <https://nationalsecurity.gmu.edu/kenneth-wainstein/>

²⁵ <https://nationalsecurity.gmu.edu/advisory-board/>

²⁶ <https://vision.gmu.edu/the-mason-vision/our-goal/>

“Committed to a more just, free, and prosperous world”

To produce a more just, free, and prosperous world, we must train people to think critically about the impact of the modern world on our lives. Specialized lawyers shape policy and the law related to the impact of the modern world on things like division scope of power of governmental branches conducting intelligence and national security operations, constitutional protections enjoyed by private citizens given security interests, the laws of armed conflict, maritime and space law, immigration law, refugee, and asylum matters.

Online Delivery

Currently, two courses included in the proposed LLM in Cyber, Intelligence & National Security Law, Economic for Lawyers²⁷ and Introduction to U.S. Law for Foreign-Trained Lawyers, can be completed online or in-person. The online version of both courses are comprised of 14 lecture videos and corresponding reading assignments. The professors for the online section of these courses are available to students during weekly office hours as well as by appointment. Students are assessed via an in-person final examination held at the conclusion of the semester.

The online courses are asynchronous. All fourteen lecture videos are uploaded to the My Mason Blackboard portal at the beginning of each semester and are available to enrolled students for the entirety of that semester. Videos include audio and video of the in-class lecture as well as any corresponding PowerPoint presentations or handouts. The course is re-recorded biennially to insure content is kept up-to-date. George Mason University and the law school utilize technology services staff and a web-services librarian to support the online course.

If the law school were to offer additional courses in the online format, they would be produced in the same manner with the option of completing the course online or in-person.

Accreditation – SACSCOC

The Master of Laws degree should fall under an exception to the SACS rule 2.7.1 of “at least 30 semester credit hours or the equivalent at the post-baccalaureate, graduate or professional level” because the institution can “provide a justification for all degrees [like the LLM] that include fewer than the required number of semester credit hours.”²⁸ The proposed LLM program requires only 24²⁹ semester hours of credit because a review of Master of Laws programs at other institution in the United States and voluminous other countries shows that almost all such program are one academic year in length, ranging from 20 to 24 hours, as described in the LLM Guide website.³⁰ In the United States, the standard number of credits required for an LLM degree is 24.

²⁷ Economic Foundations of Legal Studies is unique to George Mason, which takes an interdisciplinary approach to the study of law. All JD and LLM students must take this class. The online version is only available to LLM students.

²⁸ <http://www.sacscoc.org/pdf/2012PrinciplesOfAccreditation.pdf>

²⁹ Twenty-six credits will be required for international LLB students, who need to take a 2 credit introduction to US Law course.

³⁰ [https://sacs.uga.edu/compliance/references/2.7/2.7.1/2.7.1LLMguide\[8\].pdf](https://sacs.uga.edu/compliance/references/2.7/2.7.1/2.7.1LLMguide[8].pdf)

Admission Criteria

As with all Scalia Law applications, applicants must apply via the Law School Admission Council (LSAC) online application software³¹. Students who meet eligibility requirements and whose application files reflect a capacity to perform well in the LLM program will be considered for admission.

The admission eligibility requirements for the new LLM will be: (1) the applicant possesses, or will possess prior to enrollment in the LLM program, a first degree in law, (typically a JD from the United States or an LLB degree from a law school outside the United States), and (2) for those for whom English is not a primary language, the applicant demonstrates English proficiency³² at the time of application.

No minimum grade point average (GPA) is required because GPA scales and curves can vary widely among international institutions. The Director of Graduate Studies reviews each application taking into consideration the GPA scales and curves of the applicable educational system. The Director considers applicants for admission whose GPA reflects a performance of average or above-average.

Application file documents include:

- Application and application fee.
- Official transcripts from all college or university level work and degrees with corresponding transcript translations and evaluations provided by LSAC.
- 500-word personal statement.
- Résumé.
- Two letters of recommendation.
- Proof of English proficiency for international LLB students whose first degree is not in English.
- International student certificate of financial responsibility form if applicant is seeking an F-1 or J-1 student visa.

Target Population

³¹ http://www.law.gmu.edu/admissions/llm/how_apply_llm; www.lsac.org

³² English proficiency can be demonstrated by: (1) standardized tests such as the Test of English as a Foreign Language (TOEFL) or International English Language Testing System (IELTS) exams (2) having received a degree from a university or college whose language of instruction is English; or (3) providing documentation that shows the applicant is a native English speaker. Minimum acceptable scores will be 88 (IBT) on the TOEFL exam or 6.5 on the IELTS examination. These minimum scores reflect the guidelines for incoming graduate-level students set by George Mason University. Applicants' English proficiency is also assessed during a mandatory informational interview with the Director of Graduate Studies. If English proficiency is a problem, the applicant may be eligible to apply for Mason's Pathways Program to achieve sufficient English proficiency

The target population for the proposed LLM in Cyber, Intelligence & National Security is students who have earned a first degree in law (JD or LLB) who seek specialized instruction in cyber, intelligence and national security law in order to pursue or advance a career in that field.

As with most LLM programs -with the exception of general US Law LLM programs geared to internationally trained lawyers, the law school is targeting “[e]arly- and mid-career lawyers pursu[ing] the LLM voluntarily when looking to expand their proficiency in [this] specific area of law.”³³

In particular, as mentioned above, the law school has seen a demand for an LLM in cyber, intelligence, and national security from both US JD graduates and international LLB graduates who hope to begin new careers in this field. Specifically, the law school has identified a growing population of military lawyers assigned to the Pentagon and U.S. Cyber Command, as well as intelligence community lawyers assigned to CIA and NSA, and expects the demand for lawyers with specialized educational expertise in the LLM areas to grow in the Washington, DC metro area as intelligence and cyber operations expand and as the new headquarters element for U.S. Cyber Command is stood up in nearby Fort Meade, MD.

Curriculum

Scalia Law School’s LLM in Cyber, Intelligence & National Security will require 24 credits for domestically trained applicants with JDs and 26 credits for internationally trained applicants with LLBs who require the Introduction to US Law course.

Courses will be distributed in the following categories: 12 to 14 credit hours will be earned in required courses; the remaining credit hours are to be earned in restricted elective courses. No new course offerings will be required for the proposed degree, however the law school is in the process of expanding its national security curriculum more generally, including specifically in cyber and intelligence, and as a result, LLM students will benefit from a wider variety of potential electives being available to them.

Courses for the curriculum (required and restricted electives) were selected by the law faculty from the law school’s existing curriculum and were identified as courses that are essential to becoming an expert in the field of cybersecurity, intelligence, and national security. As the law school increases course offerings in related fields, those course could be added as restricted electives to the curriculum.

Required Common Core

Courses included in the required core curriculum for the LLM in Cyber, Intelligence & National Security are considered essential to the Scalia Law School experience and will provide students with in-depth study of national security law issues. Internationally trained students will also be introduced to the US legal system, which varies significantly from many jurisdictions, and taught the fundamentals of research, writing, and analysis of US law.

³³ <http://www.lawyeredu.org/LLM-degree.html>

Required Common Core Courses: 12 (14 for internationally trained students) credit hours

Law 108	Economics for Lawyers	3 credits
Law 384	National Security Law	3 credits
Law 641	Cybersecurity Law Seminar	2 credits
Law 492	Intelligence Law Seminar	2 credits
Law 436	Homeland Security Law Seminar	2 credits
Law 093	Introduction to United States Law	2 credits ³⁴

Restricted Electives

The restricted elective courses are courses that allow students a deeper dive into more specific areas of cyber, intelligence and national security law such as border security, foreign relations, or terrorism prosecution.

Restricted Elective Courses: 12 credit hours maximum

Law 493	Computer Crimes Seminar	2 credits
Law 147	Corporate National Security Law	2 credits
Law 654	Counterterrorism Law Seminar	2 credits
Law 148	Covert Action, Clandestine, and Special Operations Law	2 credits
Law 488	Digital Information Policy Seminar	2 credits
Law 497	Emerging Law of Internet Privacy Seminar	2 credits
Law 356	Energy, Environment & National Security: Law & Policy	2 credits
Law 149	Ethical Issues in National Security Lawyering	2 credits
Law 642	European Union Law Seminar	3 credits
Law 137	Foreign Relations Law	3 credits
Law 388	Homeland Security Law	3 credits
Law 235	Immigration Law	3 credits
Law 422	Immigration Policy Seminar	2 credits
Law 022	Interbranch and Federalism Conflicts in National Security	2 credits
Law 248	International Law	3 credits
Law 253	International Trade Law & Regulation	3 credits
Law 211	Law of Armed Conflict and Military Operational Law	2 credits
Law 657	Maritime and Space Law	2 credits
Law 406	National Security Law Seminar	2 credits
Law 658	Operational Cyber and Intelligence Law	2 credits
Law 243	Privacy and Information Security Law	2 credits
Law 419	Prosecuting Terrorism & Cases Involving Nat'l Security	2 credits
Law 313	Refugee & Asylum Law	2 credits
Law 373	Separation of Powers Seminar	1 credit
Law 416	Surveillance Law Seminar	2 credits

³⁴ Students who enter the proposed program possessing a first law degree from an international school will need the Introduction to United States Law course. Thus, students with JD degrees will need 24 credit hours for the degree and those with the international equivalent (usually LLB) will need 26 credit hours for the degree.

Law 647	Unmanned Aerial Systems Seminar	2 credits
Law 397	War and Law	3 credits
Law 621	War and Law Seminar	2 credits

Appendix A presents a sample plan of study and Appendix B provides course descriptions.

Student Retention and Continuation Plan

All students enrolled in the proposed LLM in Cyber, Intelligence and National Security Law will be advised and mentored by the Director of Graduate Studies and an Academic Advisor. Student relationships with the Director begin at the admissions. Students then meet with an Academic Advisor after enrollment.

An Academic Advisor meets with each enrolled student at least twice every academic semester; students are mandated to meet with the Academic Advisor at the initiation of every semester and at the mid-point of every semester. Students are also encouraged to schedule counseling appointments with the Academic Advisor on an as-needed basis as issues arise.

At the initiation of each semester every student must meet with the Academic Advisor for schedule approval, a review of the previous semester's academic performance, and a discussion of the past semester's and future semester's career development activities. The Academic Advisor may suggest a reduced course load, a change in scheduling, or refer the student to tutoring or other academic services if a student is displaying poor academic performance and/or requests referral for such services. The Academic Advisor will also make referrals to the Career Services as needed and direct students to reach out to specific alumni for career development purposes.

In addition to these one-on-one meetings with the Academic Advisor, students enrolled in the proposed program will have access to all of the general support services that are provided to every student at the law school. The Career and Academic Services Office sponsors a number of programs that teach effective study skills and are geared toward easing the transition into law school.

Additionally, students of the program will have access to National Security Institute (NSI) faculty, staff, and fellows. They will be permitted to attend NSI events, and they will be eligible to apply for research positions within NSI as well as to participate in NSI-affiliated programs and projects.

Time to Degree

Students enrolled in the LLM in Cyber, Intelligence & National Security must complete 24 to 26 (international students only) credit hours to receive the degree. Full-time students complete the degree in two semesters, or approximately nine months, (not including summer, as the law school does not offer a full course catalog during the Summer semester), taking 12 to 14 credit

hours in each semester. Part-time students may take up to six semesters (not including summer), or three years to complete the degree.

Faculty

Currently, Scalia Law School uses a combination of prestigious tenure-line faculty and adjuncts, who are highly experienced and prominent legal practitioners, for instruction.

As a body, **the law school's faculty have established themselves as intellectual leaders within the legal academic community.** A 2017 study by Times Higher Education ranked Scalia Law School 18th nationally and 81st worldwide³⁵ and a 2018 study by the Shanghai Ranking Consultancy ranked Scalia Law School 16th nationally and 18th worldwide.³⁶

Most recently, the Scalia Law faculty has been ranked 19th for its scholarly impact nationwide.³⁷

Appendix C provides abbreviated faculty CVs.

Advisory Board

The advisory board for the National Security Institute at the Antonin Scalia Law School is composed primarily of senior former government officials with significant experience in cybersecurity, intelligence and national security matters, as well as individuals with significant private sector experience in related fields.

The current advisory board includes a former CIA Director,³⁸ a former NSA Director (and former Founding Commander of U.S. Cyber Command),³⁹ a former U.S. Attorney General,⁴⁰ a former Director of the National Counterterrorism Center,⁴¹ a former Director of the National Geospatial-Intelligence Agency,⁴² a former Chairman of the House Intelligence Committee,⁴³ former General Counsels of the CIA,⁴⁴ NSA,⁴⁵ Navy,⁴⁶ Department of Homeland Security,⁴⁷ and Office of the Director of National Intelligence,⁴⁸ former majority and minority staff directors of the House Intelligence Committee,⁴⁹ two former Counterterrorism Advisors to the President,⁵⁰ and three Silicon Valley venture capitalists that focus on cybersecurity.⁵¹

³⁵ <https://www.timeshighereducation.com/news/world-university-rankings-2018-subject-four-results-out-now>

³⁶ <http://www.shanghairanking.com/Shanghairanking-Subject-Rankings/law.html>

³⁷ <http://leiterlawschool.typepad.com/leiter/2018/08/top-50-law-schools-based-on-scholarly-impact-2018.html>

³⁸ <https://nationalsecurity.gmu.edu/general-michael-hayden-ret/>

³⁹ <https://nationalsecurity.gmu.edu/general-ret-keith-alexander/>

⁴⁰ <https://nationalsecurity.gmu.edu/michael-b-mukasey/>

⁴¹ <https://nationalsecurity.gmu.edu/matt-olsen/>

⁴² <https://nationalsecurity.gmu.edu/letitia-a-long/>

⁴³ <https://nationalsecurity.gmu.edu/mike-rogers/>

⁴⁴ <https://nationalsecurity.gmu.edu/caroline-krass/>

⁴⁵ <https://nationalsecurity.gmu.edu/stewart-baker/>

⁴⁶ <https://nationalsecurity.gmu.edu/frank-r-jimenez/>

⁴⁷ <https://nationalsecurity.gmu.edu/joe-whitley/>

⁴⁸ <https://nationalsecurity.gmu.edu/benjamin-powell/>

⁴⁹ <https://nationalsecurity.gmu.edu/michael-allen/>; <https://nationalsecurity.gmu.edu/heather-molino/>

⁵⁰ <https://nationalsecurity.gmu.edu/lisa-o-monaco/>; <https://nationalsecurity.gmu.edu/kenneth-wainstein/>

⁵¹ <https://nationalsecurity.gmu.edu/advisory-board/>

These individuals all advise the National Security Institute on its educational programs and academic and policy efforts, and will play a key role in helping advise law school faculty on courses and other matters related to the proposed LLM program, including providing guidance on the skills and capabilities needed for LLM graduates and potential job prospects and opportunities for LLM graduates.

Program Administration

The current Director of the National Security Law & Policy Program will serve as the director of the proposed LLM in Cyber, Intelligence & National Security Law. The Director of the proposed LLM will have administrative support from the Director of Graduate Studies who completes all administrative tasks associated with the LLM programs with the assistance of the Admissions Office support staff (which includes two admissions counselors, an office manager, and a receptionist) and Academic Advisors from the Career and Students Services Office.

Two law school committees and one program also help the Director of Graduate Studies develop and administer the LLM programs at the law school. The Curriculum Committee reviews and assesses the law school's curriculum and is charged with approving any changes to the curriculum for any degree program. The National Security Institute and the National Security Law & Policy Program is responsible for developing the curriculum in conjunction with the Curriculum Committee and providing faculty and other resources for the proposed LLM program. The LLM and Special Programs Committee is responsible for assisting the director in recruiting, matriculating, and retaining students.

Each of the committees meets at least twice per academic year. At these meetings, in addition to other topics, the committees review and vote on any of the topics mentioned above as they relate to the LLM students.

Student Assessment

Student progress is assessed in specific courses through a variety of evaluative measures at the instructor's discretion. Some of these evaluative measures include but are not limited to: quizzes, tests, exams, papers, presentations, oral arguments, class participation, and projects.

Students are expected to receive a D or better in every course. Students will not receive credit for courses in which they receive a letter grade of D or below. If students receive a letter grade of D or lower in any required course the student must repeat that course. As required by Mason Law Academic Regulation 3-7, a student having a cumulative average of less than 2.33 at the end of the spring semester of the first year may be readmitted only by action of the Academic Standing and Student Affairs Committee. The committee will begin with the presumption that the student should not be readmitted, and will approve readmission only if the student provides convincing evidence that the student is likely to complete all requirements for graduation successfully. The committee may require the student to repeat courses, or impose such other conditions as the committee deems appropriate.

The law school's academic regulations provide that students must have a cumulative GPA of at least 2.33 at the completion of their coursework in order to be granted the degree.

Learning Outcome Students will:	Assessment Strategy	Courses & Benchmark (% of graduates assessed as highly qualified)
Understand the fundamental economic, statistical, finance and accounting concepts in which those concepts play a crucial role in determining the outcome of legal disputes.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of final written examination 	<ul style="list-style-type: none"> - Economic for Lawyers (30%)
Develop an advanced understanding of judicial doctrines, government practice, regulations, and policies relating to cyber, intelligence, and national security activities within the public and private sectors.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 384 National Security Law (40%) -Law 641 Cybersecurity Law Seminar (20%) -Law 492 Intelligence Law Seminar (20%) -Law 022, Interbranch and Federalism Conflicts in National Security (10%) -Law 373, Separation of Powers Seminar (10%)
Understand, interpret, and apply cyber, intelligence, and national security laws and principles in the context of U.S. domestic criminal law.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 493, Computer Crimes Seminar (15%) -Law 654, Counterterrorism Law Seminar (20%) -Law 658, Operational Cyber and Intelligence Law (15%) -Law 419, Prosecuting Terrorism & Cases Involving National Security (15%) -Law 416, Surveillance Law Seminar (20%) -Law 149 Ethical Issues in National Security Lawyering (15%)

Learning Outcome Students will:	Assessment Strategy	Courses & Benchmark (% of graduates assessed as highly qualified)
Understand, interpret, apply, and explain the relationship of U.S. domestic law and international law in the context of cyber, intelligence, and national security matters.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 642 European Law Seminar (25%) -Law 137, Foreign Relations Law (30%) -Law 248, International Law (25%) -Law 406, National Security Law Seminar (10%) -Law 621, War and Law Seminar (10%)
Understand and apply the principle of national security related laws in the context of domestic and international business transactions and trade.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 147 Corporate National Security Law (30%) -Law 253 International Trade Law & Regulation (30%) -Law 356 Energy, Environment & National Security: Law & Policy (30%)
Understand, interpret, apply, and explain the relationship of intelligence, homeland security, and military law.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 148, Covert Action, Clandestine, and Special Operations Law (20%) -Law 211, Law of Armed Conflict and Military Operational Law (25%) -Law 657, Maritime and Space Law (20%) -Law 436, Homeland Security Law Seminar (15%) -Law 397, War and Law (10%) -Law 647 Unmanned Aerial Systems Seminar (10%)
Understand, interpret, and apply civil liberties and privacy laws and principles to activities in cyberspace in the context of national security activities.	<ul style="list-style-type: none"> - Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers 	<ul style="list-style-type: none"> -Law 488, Digital Information Policy Seminar (20%) -Law 497 Emerging Law of Internet Privacy Seminar (25%)

Learning Outcome Students will:	Assessment Strategy	Courses & Benchmark (% of graduates assessed as highly qualified)
		-Law 243, Privacy and Information Security Law (20%) -Law 416, Surveillance Law Seminar (20%) -Law 149 Ethical Issues in National Security Lawyering (15%)
Understand, interpret, and apply the relationship of homeland security laws and principles in the broader national security context.	- Analysis of oral in-class participation - Analysis of course assignments - Analysis of final written examinations or papers	-Law 388, Homeland Security Law (25%) -Law 406 National Security Law Seminar -Law 235 Immigration Law (25%) -Law 422, Immigration Policy Seminar (25%) -Law 313, Refugee & Asylum Law (25%)

Related Workplace Competencies

Students of this LLM program will possess law degrees from the United States (JD) or international law schools (LLB) when they start the program. Many will have experience practicing law, some with limited cyber, intelligence and national security experience and some without. Upon completion of the proposed program, they will be equipped with skills and abilities comparable to lawyers with many years experience working for law firms, government organizations, and corporations in the fields of cyber, intelligence and national security law.

Upon completion of the LLM, program graduates will be able to:

- Advise a wide variety of clients on cyber, intelligence and national security issues;
- Advise clients on cyber, intelligence and national security compliance matters and ensure clients’ compliance with relevant laws and regulations;
- Draft submissions to courts;
- Participate in the definition, development, implementation, and maintenance of corporate and governmental policies, procedures, and programs to ensure compliance;
- Conduct and document initial and ongoing risk assessments;

- Apply existing legal and regulatory frameworks to new developments in the areas of cyber, intelligence, and national security; and
- Understand and apply U.S. constitutional doctrine to cyber, intelligence and national security policies and practices.

Program Assessment

The Curriculum Committee of Scalia Law School will assess the proposed degree program at its biannual meetings. The Committee will discuss the success of the program beginning immediately after the program’s launch in consultation with the NSI leadership. Success is defined by the professional and academic success of our students, student satisfaction, and the financial viability of the LLM program. Additionally, the NSI leadership will recommend proposed changes to the Curriculum Committee which will discuss the proposed changes to the curriculum, as well as any other changes it identifies as need for at its biannual meetings, and will make adjustments if the needs of the students and employers are not being met. The Curriculum Committee will make its determinations based on course evaluations and feedback received by Director of Graduate Studies, Academic Advisors, and the Director of the National Security Law & Policy Program, and from students in the program, as well as based on substantive input from NSI leadership and faculty. The Director of Graduate Studies will also solicit feedback from employers who regularly provide internships to or hire program student and graduates, and the Director will provide such feedback to the Curriculum Committee. Changes/recommendations made by either committee would be subject to approval of the faculty as a whole.

The proposed LLM in Cyber, Intelligence & National Security will be reviewed on the seven – year cycle typical of programs within George Mason University. Program review takes place under the guidance of the Office of Institutional Assessment (OIA). The outcomes of the process are a series of deliverables – a self-assessment report and academic plan written by program faculty and a report by an Academic Program Review (APR) team external to the program – and changes made to enhance the program. If approved, the program would be scheduled to submit its first APR report in 2025.

The GMU Board of Visitors will review the proposed new program progress in meeting its goals in five years (2023).

Finally, the law school has its American Bar Association Accreditation review every seven years. The ABA visited the law school in 2015, and it will make another visit in 2022.

Benchmarks of Success

The Curriculum Committee, the LLM & Specialty Programs Committee, and NSI leadership and faculty, at its meeting each fall and spring semester, will review and discuss program success as indicated by the benchmarks below. If benchmarks are not being met, the committee will make adjustments to the program, including but not limited to providing supplemental academic and career counseling services to LLM students to increase their academic performance and

employment outcomes and/or increasing the program admission standards with advisement from the Admissions Committee and Curriculum Committee as needed.

- 80% of all program graduates will report being satisfied with the academic program at graduation. Students will be surveyed at graduation.
- 50% of all program graduates will report being highly satisfied with the academic program at graduation.
- 70% of all LLM students are placed in appropriate employment within 9 months of graduation. Students are surveyed at graduation and at 9 months after graduation for employment info.
- 65% of students are placed in appropriate employment within two years of graduation. All law school alumni are contacted annually to update their employment information in our alumni directory.
- 90% of full-time students will complete the program in 1.5 years or less. Graduation statistics are reported each fall and spring semester.

Expansion of Existing Programs

Scalia Law does not seek to expand an existing program.

Relationship to Existing Degree Programs

The LLM in Cyber, Intelligence and National Security would not affect the existing degree programs at Scalia Law.

Collaboration or Standalone

This is a standalone program. No other organization was involved in its development, and no other organization will collaborate in its operation.

Justification for the Proposed Program

Response to Current Needs (Specific Demand)

A number of students enrolled in existing Scalia Law LLM programs, as well as current JD students, alumni, and national security leaders in the military and intelligence communities in the Washington, DC metro region have specifically approached leadership at Scalia Law, including the National Security Institute and have made a convincing case for the need for such a program. The growing role of lawyers in military and intelligence operations, and specifically in the cyber area and the establishment of United States Cyber Command as a separate combatant command headquartered in the DC metro region are major contributing factors to this new and burgeoning

need.⁵² In addition, the increasing complexity of the international and domestic law and policy frameworks applicable to such matters and the additional oversight taking place of such matters is also a major driver of the need for lawyers specifically trained in these matters.

Why Scalia?

Scalia Law is poised to be *the school* for anyone who wants to practice law in the areas of cyber, intelligence and national security. The State Council for Higher Education in Virginia can help us achieve this goal and bring this recognition to Virginia.

There are three reasons why Scalia Law is the appropriate place for the proposed LLM for specialized study in Cyber, Intelligence and National Security: (1) Leading Center in Cyber, Intelligence and National Security Law; (2) Leading Faculty Offering Numerous Courses in Cyber, Intelligence and National Security; (3) An Unbeatable Location for Future Lawyers Specializing in Cyber, Intelligence and National Security; and (4) no other law school in Virginia offers an LLM with these areas of concentration.

Leading Center in Cyber, Intelligence and National Security

As noted above, because of increased attention to cyber, intelligence, and national security issues and the growing number of faculty members with expertise in this area of law, the law school founded the National Security Institute in 2017. NSI is dedicated to finding real-world answers to national security law and policy questions. NSI is a platform for research, teaching, scholarship, and policy development that incorporates a realistic assessment of the threats facing the United States and its allies as well as an appreciation of the legal and practical challenges facing U.S. intelligence, defense, law enforcement, homeland security, and cybersecurity communities.⁵³

Leading Faculty Offering Numerous Courses in Cyber, Intelligence and National Security

Having NSI on campus has led to significant increases in the number scholars and practitioners in the areas of cyber, intelligence and national security. Whether they serve as members of the Board of Advisors to NSI, Visiting Fellows at NSI, or members of the faculty at Scalia Law that specialize in cyber, intelligence and national security, this deep pool of experts allows Scalia Law to offer an expansive list of courses in cyber, intelligence and national security law to its students.

An Unbeatable Location for Future Cyber, Intelligence & National Security Lawyers

Scalia Law is uniquely positioned geographically to offer the proposed LLM in Cyber, Intelligence & National Security. Scalia Law's location, just minutes away from the heart of the nation's capital, cannot be underestimated in the successful study of cyber, intelligence and

⁵² <http://hls.harvard.edu/content/uploads/2015/07/NATIONAL-SECURITY-LAW-2014.pdf> at p.3; <https://www.defensenews.com/space/2018/08/07/pentagon-setting-up-new-combatant-command-for-space-operations-mattis-confirms/> .

⁵³ <https://nationalsecurity.gmu.edu/about-us/mission-statement/>

national security law and policy. The seventeen intelligence agencies within the federal government, the Pentagon, and the Department of Homeland Security are all located in the Washington, DC metro area. Mason students have the opportunity to network and intern with the experts and policymakers in cyber, intelligence and national security law. In addition, the law school has identified a growing population of military lawyers assigned to the Pentagon and U.S. Cyber Command, as well as intelligence community lawyers assigned to CIA and NSA, and expects the demand for lawyers with specialized educational expertise in the LLM areas to grow in the Washington, DC metro area as intelligence and cyber operations expand and as the new headquarters element for U.S. Cyber Command is stood up in nearby Fort Meade, MD.

A degree from George Mason that says LLM in Cyber, Intelligence & National Security Law will send a clear signal to employers.

Employment Demand

The positions that future graduates of the proposed LLM in Cyber, Intelligence & National Security are best suited for will not list “LLM in Cyber, Intelligence & National Security” as the preferred degree in job postings. Rather, these jobs will typically require a JD or LLB and specialized knowledge or experience in the area of cybersecurity, intelligence, or national security.

We anticipate that the degree will evolve much like the LLM in Tax; when students obtain an LLM in Tax from the most prestigious schools, that LLM work is accepted as a substitute, in part, for work experience. Indeed, we expect that an LLM in Cyber, Intelligence & National Security from this University will become a decision differentiator in the employment market, particularly for our military and intelligence community professionals that work in the Washington, DC metro area.

In the United States, the Bureau of Labor Statistics reports that in 2016, 792,500 individuals were employed as lawyers, and that the number of individuals employed as lawyers “is projected to grow 8% from 2016 to 2026, about as fast as average for all occupations.”⁵⁴ Note that the Bureau of Labor Statistics does not provide a distinction between lawyers that are LLM-holders and lawyers that are JD-holders.

The American Bar Association (ABA) reports that for most recent class of law school graduates, the class of 2016, 75.3% were employed 10 months after graduation.⁵⁵ Nationally, the legal job market has been depressed since 2007;⁵⁶ however, the legal market is expected to improve over the next few years according to the executive director of the National Association of Law Placement:

⁵⁴ <http://www.bls.gov/ooh/legal/lawyers.htm#tab-6>; <https://www.bls.gov/ooh/legal/lawyers.htm>

⁵⁵ https://www.americanbar.org/news/abanews/aba-news-archives/2018/04/aba_legal_education.html

⁵⁶ <http://www.forbes.com/sites/emsi/2014/01/10/the-job-market-for-lawyers-side-work-on-the-rise-amid-continuing-glut-of-new-grads/>

Absent another significant national or international collapse in the marketplace...we can expect to see gradually improving job numbers for all three classes now enrolled in law schools.⁵⁷

The table below shows the long-term employment projections for Lawyers in Virginia for the 2014 - 2024 projection period.⁵⁸ Note that the Virginia Employment Commission does not provide a distinction between lawyers who are LLM-holders and lawyers who are JD-holders.

2014 Estimated Employment	2024 Projected Employment	Total 2014-2024 Employment Change	Annual Avg. Percent Change	Total Percent Change
21,858	24,149	2,291	1.00%	10.48%

Virginia is generally in-line with the national trends in the legal hiring market.

Job ads are provided in Appendix F.

Employment letters are provided in Appendix G.

Student Demand

To understand if students are interested in a Master of Laws (LLM): Cyber, Intelligence and National Security Law program we created a survey off of Google Forms. Among its many questions, the survey asked if students would be interested in the program, if they possessed a Juris Doctor, if they believed the LLM would be helpful for their career. We completed and made public the survey on August 6, 2018. We received 55 responses indicated an interest in the proposed program. Results of the survey are provided in Appendix H.

Prospective student letters are provided in Appendix A.

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⁵⁷http://www.abajournal.com/news/article/job_market_for_new_law_grads_is_improving_nalp_chief_says; http://www.slate.com/articles/business/moneybox/2014/06/apply_to_law_school_now_yes_we_re_serious.html

⁵⁸ Virginia Employment Commission, Industry and Occupational Projections, <https://data.virginialmi.com/vosnet/analyzer/results.aspx?session=occpri> (Attached in Appendix J).

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
SUMMARY OF PROJECTED ENROLLMENTS IN PROPOSED PROGRAM

Projected enrollment:

Year 1		Year 2		Year 3		Year 4 Target Year (2-year institutions)			Year 5 Target Year (4-year institutions)		
2019-2020		2020-2021		2021-2022		2022-2023			2023-2024		
HDCT	FTES	HDCT	FTES	HDCT	FTES	HDCT	FTES	GRAD	HDCT	FTES	GRAD
10	8	17	14	23	19	25	23	17	26	24	12

Assumptions:

- Retention percentage: 90%
- Full-time students 60%/ Part-time students 40%
- Full-time students credit hours per semester: 12 credits
- Part-time students credit hours per semester: 6 credits
- Full-time students graduate in 1 year
- Part-time students graduate in 3 years

Duplication

Scalia Law School would be the first Virginia institution to offer an LLM degree in Cyber, Intelligence, and National Security Law.

While other law schools in Virginia offer a range of LLM programs, including UVA’s LLM in Law, the College of William and Mary’s LLM in American Legal Studies, University of Richmond’s LLM - Legum Magistur, Liberty University’s LLM in International Legal Studies, and Regent University’s LLM in American Legal Studies, none of these programs substantially duplicates the unique course offerings and specialization proposed in the Cyber, Intelligence & National Security LLM. In fact, no Virginia school offers anything related or similar in breadth and depth to the proposed program.

The closest programs include UVA’s LLM in Law, which benefits from the potential option to take classes in national security related topics offered at UVA Law School and Liberty University’s LLM in International Legal Studies, which offers some courses similar to those contained in the proposed LLM curriculum, including law & economics, international trade law,

international trade law, international law & diplomacy, the law of armed conflict, and international human rights law.⁵⁹

However, both these programs lack the specific, focused security courses and elective options available to students under the proposed LLM programs. For example, Liberty University's LLM's core courses are Foundations of Law and Legal Research & Writing Capstones, while the proposed LLM requires Economics for Lawyers, National Security Law, Cybersecurity Law Seminar, Intelligence Law Seminar, and Homeland Security Law Seminar. The proposed LLM also offers electives not found in other programs, such as surveillance law, cybersecurity law, cyber and intelligence operations law, intelligence law, law of counterterrorism, unmanned aerial vehicles law, and interbranch conflicts in national security: war, intelligence, and negotiations. As a result, there ought to be little concern on the duplication front.

Moreover, the proposed LLM would be only the seventh of its kind in the country and most detailed offered to date.

- Albany Law School – Cybersecurity and Data Privacy Law LLM⁶⁰
 - Because the Albany LLM is conducted entirely online, it will not provide the networking and mentoring experience that plays such a central role in our student's professional development.
- Georgetown University Law Center – National Security Law LLM⁶¹
 - Although Georgetown's LLM program includes some cybersecurity courses, it lacks the cybersecurity focus that the GMU proposed LLM will offer; this makes the GMU LLM more attractive to key federal agency students, including those stationed at the Pentagon, various Intelligence Community agencies, and U.S. Cyber Command.
 - Moreover, our proposed LLM is much more financially accessible for most students, making it particularly attractive for federal agencies looking to send students for advanced degrees: the Georgetown LLM costs approximately \$64,000 per year,⁶² while our LLM costs approximately \$25,000 per year (in state).⁶³

⁵⁹ <https://www.law.virginia.edu/courses/by-concentration/?concentration=International%20and%20National%20Security%20Law;>
<http://www.liberty.edu/law/llm-master-of-laws-degree/> .

⁶⁰ <http://www.albanylaw.edu/academic-life/degrees/llm/specializations/cybersecurity-and-data-privacy-law>.

⁶¹ <https://www.law.georgetown.edu/academics/academic-programs/graduate-programs/degree-programs/national-security/index.cfm>.

⁶² <https://www.law.georgetown.edu/admissions-financial-aid/graduate-admissions/llm-degree-programs/frequently-asked-questions/About-the-LLM-Degree-Program.cfm>.

⁶³ <https://www.law.gmu.edu/financing/tuition>.

- George Washington University Law School – National Security & US Foreign Relations Law LLM⁶⁴
 - Like the Georgetown LLM, the George Washington LLM lacks the cybersecurity focus provided by the GMU proposed LLM, providing the GMU LLM an advantage with key federal agencies.
 - And at approximately \$51,000 per year,⁶⁵ the George Washington LLM is twice as expensive as the GMU proposed program providing another advantage for most students as well as the federal agencies looking to send students to an advanced degree program.

- Loyola Law School, Los Angeles – Cybersecurity & Data Privacy⁶⁶
 - Unlike the other LLMs discussed thus far, the Loyola LLM focuses almost exclusively on technology and cyber issues, and lacks the national security and intelligence law courses that make GMU’s proposed LLM attractive to federal government employers, including various national security agencies and Intelligence Community components.

- Nebraska College of Law – Space, Cyber & Telecommunications Law LLM⁶⁷
 - While the Nebraska LLM includes a robust cybersecurity curriculum like the Loyola LLM, the program’s distance from DC is a distinct disadvantage; the GMU proposed program’s proximity to federal agencies, key cybersecurity firms and startups, and the Intelligence Community will allow our students to gain practical experience while earning their LLM.
 - In addition, the Nebraska LLM’s core focus on space law also reflects its location near U.S. Strategic Command, while the proposed GMU LLM’s core focus on broader national security and intelligence law issues benefits GMU’s location adjacent to the Nation’s capital.

- University of Maryland Carey School of Law – Cybersecurity LLM⁶⁸
 - While the University of Maryland’s LLM does include a cybersecurity focus, its course list is fairly limited and lacks the intelligence law courses that form an integral part of GMU’s proposed LLM curriculum; this is particularly important given U.S. Cyber Command’s heritage, coming out of the National Security Agency, an Intelligence Community component

⁶⁴ <https://www.law.gwu.edu/llm-national-security-us-foreign-relations-law>.

⁶⁵ <https://www.law.gwu.edu/cost-of-attendance>.

⁶⁶ <http://www.lls.edu/academics/concentrationsspecializations/llmspecializations/>.

⁶⁷ <https://law.unl.edu/prospective-students/>.

⁶⁸ <http://www.law.umaryland.edu/prospective/llm/>.

and the dual-hatting of NSA and U.S. Cyber Command leadership and operators.

- In addition, while the University of Maryland's proximity to Fort Meade, the headquarters of U.S. Cyber Command is an advantage for students stationed there, GMU's location significantly closer to the Pentagon, the Capitol and White House, as well as other key Intelligence Community agencies and contractors, provides a significant benefit, particularly for those students interested in a broader national security and intelligence law focus.

Projected Resource Needs

Resource Needs

Scalia Law has all of the faculty, classified support, equipment, library, and other resources necessary to launch the proposed LLM in Cyber, Intelligence and National Security. The following subsections detail the resources required to operate the program from its initiation in the fall 2019 semester through the target year. Assessments of need for full-time faculty, part-time faculty, and adjunct faculty are based on the following ratio of student enrollment to faculty effort: 17 FTE of enrollment requires one FTE faculty for instruction. The proposed program will therefore require a total of 0.50 FTE to launch increasing to 1.40 FTE by the target year of 2023-2024. However, Scalia Law has the faculty necessary for the proposed program now and does not anticipate hiring additional full-time faculty. Currently, Scalia Law employs 41 full-time faculty members and approximately 80 adjunct professors. Of those faculty members, 13 will teach courses included in the proposed LLM in Cyber, Intelligence and National Security Law curriculum.

Full-time Faculty

Because the proposed program will utilize existing courses, there are no full-time faculty exclusively dedicated to the program. Six of the courses within the proposed new curriculum are taught by seven different full-time faculty members, many of whom teach more than one of the courses within the curriculum. Faculty resources required for the proposed program are none as the program will use existing LLMs and School of Law programs.

Part-time Faculty

The proposed program will require 0.25 FTE of part-time instructional effort to launch, rising to 0.70 FTE by the target year. The School of Law has the instructional faculty necessary to initiate and sustain the proposed program. The Director of Graduate Studies will complete all primary administrative tasks associated with the proposed programs. Approximately 25% of her time and salary will be put toward this degree program. No new hires will be necessary to initiate or sustain the proposed program.

Adjunct Faculty

The School of Law employs a large cadre of adjunct instructors who possess significant professional experience in the practice of law and public policy. The LLM in Cyber, Intelligence and National Security will require 0.25 FTE of adjunct faculty to launch, rising to 0.70 FTE by

the target year. Since there are no new courses, additional students can be accommodated in existing course offerings. No additional hires will be required to launch or sustain the proposed program.

Graduate Assistants

No graduate assistants will be required to launch, sustain, or support the proposed program.

Classified Positions

The Director of Graduate Studies and the Director of NSI will receive administrative support from the Admissions Office classified and NSI classified support staff. Additionally, there is a part-time Academic Advisor for all LLM students available in the Student Career and Academic Services Office. As the assistance is limited, it does not represent a cost to the academic program. Therefore, the LLM in Cyber, Intelligence and National Security will not require additional classified support to launch or maintain the proposed program.

Targeted Financial Aid

No targeted financial aid is need to launch, sustain, or support the proposed program.

Equipment (including computers)

No new equipment is required to launch, sustain, or support the proposed program.

Library

George Mason University routinely commits \$3000 to the purchase of research journals and books for new master degree programs. The proposed program should not require additional resources because the proposed curriculum is contained within the existing Juris Doctor curriculum, and thus the research journals and books already exist in our library. However, if additional journals and books are needed the money would be available for them.

Telecommunications

The proposed program requires no new telecommunications.

Space

No additional space will be required to launch or maintain the proposed program.

Other Resources (specify)

No other resources will be required to launch or maintain the proposed program.

Resource Needs Parts A-D

Part A: Answer the following questions about general budget information.

- Has or will the institution submit an addendum budget request to cover one-time costs? Yes _____ No X
- Has or will the institution submit an addendum budget request to cover operating costs? Yes _____ No X
- Will there be any operating budget requests for this program that would exceed normal operating budget guidelines (for example, unusual faculty mix, faculty salaries, or resources)? Yes _____ No X
- Will each type of space for the proposed program be within projected guidelines? Yes X No _____
- Will a capital outlay request in support of this program be forthcoming? Yes _____ No X

Part B: Fill in the number of FTE positions needed for the program

	Program Initiation Year 2016 – 20XX		Expected by Target Enrollment Year 2020 – 2021	
	On-going and reallocated	Added (New)	Added (New)***	Total FTE positions
Full-time FTE*	0.00	0.00	0.00	0.00
Part-time FTE **	0.25	0.00	0.70	0.95
Adjunct faculty	0.25	0.00	0.70	0.95
Graduate assistants	0.00	0.00	0.00	0.00
Classified positions	0.00	0.00	0.00	0.00
TOTAL	0.50	0.00	1.40	1.90

* Faculty dedicated to the program. **Faculty effort can be in the department or split with another unit.

*** Added **after** initiation year.

Part C: Estimated resources to initiate and operate the program

	Program Initiation Year 2016 – 2017		Expected by Target Enrollment Year 2020- 2021	
Full-time faculty	0.00	0.00	0.00	0.00
salaries	\$0	\$0	\$0	\$0
fringe benefits	\$0	\$0	\$0	\$0
Part-time faculty (faculty FTE split with unit(s))	0.25	0.00	0.70	0.95
salaries	\$23,090	\$0	\$64,651	\$87,741
fringe benefits	\$7,643	\$0	\$21,399	\$29,092
Adjunct faculty	0.25	0.00	0.70	0.95
salaries	\$22,530	\$0	\$63,084	\$85,614
fringe benefits	\$1,645	\$0	\$4,605	\$6,250
Graduate assistants	0.00	0.00	0.00	0.00
salaries	\$0	\$0	\$0	\$0
fringe benefits	\$0	\$0	\$0	\$0
Classified Positions	0.00	0.00	0.00	0.00
salaries	\$0	\$0	\$0	\$0
fringe benefits	\$0	\$0	\$0	\$0

Total Personnel cost				
salaries	\$45,620	\$0	\$127,735	\$173,355
fringe benefits	\$9,287	\$0	\$26,004	\$35,291
Total personnel cost	\$54,907	\$0	\$153,739	\$208,646
Equipment	\$0	\$0	\$0	\$0
Library	\$3000	\$0	\$0	\$3000
Telecommunication costs	\$0	\$0	\$0	\$0
Other costs (specify)	\$0	\$0	\$0	\$0
TOTAL	\$57,907	\$0	\$153,739	\$211,646

Part D: Certification Statement(s)

The institution will require additional state funding to initiate and sustain this program.

_____ Yes _____
 Signature of Chief Academic Officer

X No _____
 Signature of Chief Academic Officer

If “no,” please complete items 1, 2, and 3 below.

1. Estimated \$\$ and funding source to initiate and operate the program.

Funding Source	Program initiation year 2016-2017	Target enrollment year 2020-2021
Reallocation within the department <i>(Note below the impact this will have within the department.)</i>	\$0	\$0
Reallocation within the school or college <i>(Note below the impact this will have within the school or college.)</i>	\$54,907	\$153,739
Reallocation within the institution <i>(Note below the impact this will have within the institution.)</i>	\$3000	\$3000
Other funding sources <i>(Please specify, to include extramural funding and philanthropy, and note if these are currently available or anticipated.)</i>	\$0	\$0

2. Statement of Impact/Other Funding Sources.

Reallocation within the school or college

The School of Law will utilize existing faculty and classified support to launch and maintain the proposed program. The current faculty and courses cover the proposed program and can accommodate additional students at no additional cost.

Additionally, as LLM programs are generally marketed and promoted as a group, and because Scalia Law has four existing programs, the proposed program would be included in the existing marketing at no additional cost.

Reallocation within the institution

George Mason University's libraries routinely designate \$3000 for each new graduate program. These funds are utilized for the purchasing of relevant books and materials. Existing academic programs will not be impacted.

3. Secondary Certification.

If resources are reallocated from another unit to support this proposal, the institution will **not** subsequently request additional state funding to restore those resources for their original purpose.

_____ Agree _____
Signature of Chief Academic Officer

_____ Disagree _____
Signature of Chief Academic Officer

Appendices

Appendix A – Sample Plan of Study

Restricted elective courses are noted in bold. Required core courses are un-bolded.

Sample Plan of Study for Full-Time Students with International LLB First Degrees in Law

	Fall Semester	Spring Semester
Full-Time	Introduction to United States Law (2)	Cybersecurity (2)
	Economics for Lawyers (online, 3)	Intelligence Law (2)
	National Security Law (3)	Homeland Security (2)
	International Law (3)	Operational Cyber and Intelligence Law (2)
	War and Law Seminar (2)	European Union Law Seminar (3)
		Emerging Law of Internet Privacy Seminar (2)

Credit Hours – Full Time – Fall Term 13

Credit Hours – Full-Time – Spring Term 13

TOTAL CREDIT HOURS 26

Sample Plan of Study for Part-time Students with International LLB First Degree in Law

	Fall Semester	Spring Semester
Part-Time Year 1	Introduction to United States Law (2)	War and Law Seminar (2)
	Economics for Lawyers (online, 3)	Emerging Law of Internet Privacy Seminar (2)
	National Security Law (3)	Intelligence Law (2)
Part-Time Year 2	Homeland Security Law (2)	European Union Law Seminar (3)
	International Law (3) Cybersecurity (2)	Operational Cyber and Intelligence Law (2)

Credit Hours – Part-Time, Year 1 – Fall Term 8

Credit Hours – Part-Time, Year 1 – Spring Term 6

Credit Hours – Part-Time, Year 2 – Fall Term 7

Credit Hours – Part-Time, Year 2 – Spring Term 5

TOTAL CREDIT HOURS 26

Sample Plan of Study for Full-Time Students with US JD First Degree in Law

	Fall Semester	Spring Semester
Full-Time	Corporate National Security Law (2)	Homeland Security Law (2)
	Economics for Lawyers (online, 3)	Cybersecurity Law (2)
	National Security Law (3)	Intelligence Law (2)
	Counterterrorism Law Seminar (2)	Maritime and Space Law (2)
	Digital Information Policy Seminar (2)	Privacy and Information Security Law (2)
		Unmanned Aerial Systems Seminar (2)

Credit Hours – Full Time – Fall Term 12

Credit Hours – Full-Time – Spring Term 12

TOTAL CREDIT HOURS 24

Sample Plan of Study for Part-time Students with US JD First Degree in Law

	Fall Semester	Spring Semester
Part-Time Year 1	National Security Law (3)	Cybersecurity Law (2)
	Economics for Lawyers (online, 3)	Intelligence Law (2)
		Operational Cyber and Intelligence Law (2)
Part-Time Year 2	Homeland Security Law (2)	Maritime and Space Law (2)
	International Law (3)	Foreign Relations Law (3)
		Cover Act, Clandestine, and Special Operations Law (2)

Credit Hours – Part-Time, Year 1 – Fall Term 6

Credit Hours – Part-Time, Year 1 – Spring Term 5

Credit Hours – Part-Time, Year 2 – Fall Term 6

Credit Hours – Part-Time, Year 2 – Spring Term 7

TOTAL CREDIT HOURS 24

Appendix B – Course Descriptions

Law 108 Economics for Lawyers

- 3 Credits
- Economics for Lawyers (formerly Economic Foundations of Legal Studies) exposes students to a broad survey of economic, statistical, finance and accounting concepts in which those concepts play a crucial role in determining the outcome of legal disputes. Students will not become expert in these technical areas but will be exposed to both the mechanics and subtleties of these tools. The goal is to educate and train students so that they will be better prepared to understand a dispute, craft an argument, or prepare a witness.

Law 384 National Security Law

- 3 Credits
- This lecture course will explore the distribution of national security powers amongst the three coordinate branches of government and engage students in understanding the laws and policies that govern the legality of war, military operations in wartime, intelligence collection, protection of national security information, foreign intelligence surveillance, covert action, special military operations, offensive counterterrorism operations, the detention, interrogation, and prosecution of terrorism suspects, including military commissions, the domestic use of the military, homeland security, cybersecurity, and other current issues in the national security area. The class will also include discussion of materials declassified in recent months relating to foreign intelligence collection and offensive counterterrorism operations, as well as materials previously declassified, and will examine the legal analysis supporting these specific efforts and the policy questions raised by them.

Law 641 Cybersecurity Law Seminar

- 2 Credits
- This seminar course will provide students exposure to the key legal and policy issues related to cybersecurity, including the legal authorities and obligations of both the government and the private sector with respect to protecting computer systems and networks, as well as the national security aspects of the cyber domain including authorities related to offensive activities in cyberspace. The course will include a survey of federal laws, executive orders, regulations, and cases related to surveillance, cyber intrusions by private and nation-state actors, data breaches, and privacy and civil liberties matters, among other things. The course will also explore the legislative and technology landscape in this dynamic area and will provide students with opportunities to discuss cutting-edge issues at the intersection of law, technology, and policy.

Law 492 Intelligence Law Seminar

- 2 Credits
- This seminar will provide students with an overview of the U.S. Intelligence Community (IC) and its sources of legal authority. Students will engage in exercises (both written and oral) to analyze and draft practical guidance on relevant legal issues for the IC. Each class will involve an overview of the specific topic followed by either the drafting of a short

memorandum addressing a hypothetical client question or a simulated inter-agency meeting. No security clearance is required since all materials and discussions will be at the unclassified level. Although this seminar is focused on issues most relevant to IC agencies, each week's practical exercise will focus on drafting and/or negotiating skills useful and relevant to any government attorney.

Law 388 Homeland Security Law

- 3 credits
- Law 388: This course provides an introduction to the policy, strategy and practical application of homeland security through an understanding of the authorizing laws, regulations, and polices that established DHS. This is a multi-faceted course that will expose students to complex intergovernmental and public-private sector policymaking, operational planning, and crisis management. The course is designed to promote subject matter understanding, critical analysis of issues, and insight into senior leader decision making. It also includes a practical examination of stakeholder interaction and key subject matter areas through an interactive tabletop exercise as well as other interactive opportunities throughout the course.

Law 093 Introduction to United States Law

- 2 Credits
- This course is designed to provide LL.M. students who did not receive their legal education in the United States with an overview of U.S. law. Students will develop basic research and writing skills necessary for the study and practice of law in the U.S., while covering substantive areas of law, including contracts, torts, and Constitutional law. This course will not provide an exhaustive survey of each topic, but rather exposure to a large amount of foundational information in a short period of time.

Restricted Elective Courses:

Law 654 Counterterrorism Law Seminar

- 2 Credits
- This seminar course will provide students with exposure to the laws and policies relating to U.S. government counterterrorism efforts and will survey the wide range of legal issues implicated by such efforts at home and overseas. Issues to be addressed will include international and domestic law applicable to counterterrorism activities, the authorities for the use of force, offensive operations overseas, domestic counterterrorism efforts, surveillance of terrorists, capture, detention, and interrogation of terrorism suspects, prosecutions in military commissions and domestic courts, immigration matters, and other legal authorities for addressing terrorism issues.

Law 488 Digital Informational Policy Seminar

- 2 Credits
- This course is designed to expose students to some of the legal framework that applies to firms operating in the digital economy. Topics covered include the economics of information, theories of privacy law, the Federal Trade Commission's role in advertising, privacy, and data security regulation, the application of the Electronic Communications Privacy Act to private entities, and the First Amendment's commercial speech doctrine.

Law 497 Emerging Law of Internet Privacy Seminar

- 2 Credits
- Increasingly technology has served as a disruptive force which challenges society to make important decisions about what privacy is and how it should be respected and/or protected. Students will survey the historical, policy and technological bases of privacy and information governance. Particular attention will be paid to notions of "relationship dependent context" as it relates to the collection, use and disclosure of information. Leading legal academic scholarship in the field of information privacy will be discussed and students will apply knowledge of the law of privacy and technology to current legal and policy problems. Each student will apply their acquired knowledge both in class as well as through the preparation of a scholarly student paper. Issues such as Do-Not-Track and Online Advertising, Security Breaches, Workplace Monitoring, Comparative International Approaches, Ownership of Facts and Information, Health and Financial Privacy and more will be covered.

Law 356 Energy, Environment & National Security: Law and Policy

- 2 Credits
- Energy issues have framed recent international security crises: the OPEC oil shock of 1973-74, both Gulf Wars, 9/11 and Afghanistan, Russian gas threats to Europe (including the Georgia invasion), China's scramble for energy resources, the financial imbalance caused by oil imports, the threats posed by ISIS and its control of substantial oil revenues, and the security risks posed by climate change. Yet, US and EU energy policies have been driven primarily not by international security issues but by domestic law on traditional pollution control (including the consequences of the fracking revolution), private property protection and antitrust. This course will examine how these domestic legal and regulatory regimes have shaped energy policy internationally in ways that multilateral security entities like NATO and the UN cannot reach. The course will focus primarily on the EU and US, examining how their domestic regulatory differences affect international energy and climate policies (including fracking), often in unintended ways. It will also examine the implications of climate regulation, energy security policies, gas and oil export restrictions, and financial issues (most of the US current account deficit is due to oil imports theoretically displaceable by domestic alternatives that include cars and trucks powered by electricity, CNG and biofuels). The course necessarily requires considerable study of the Clean Air Act as the source of the US' primary energy policy, and of aspects of administrative law as it effects the execution of that power by the EPA.

Law 642 European Union Law Seminar

- 3 Credits
- This three-credit course aims to give students a comprehensive introduction to European Union law in light of the ongoing economic and political challenges facing the 28-country bloc. In the opening weeks, the course will survey the succession of treaties that have led to today's EU and the institutions that govern the Union, and lay out key legal and political themes and principles associated with European integration. The middle portion of the course delves into the nature of the EU legal order, including the role of the judiciary, interaction with the domestic law of member states and with international law,

and the Union's increasingly important fundamental rights framework. The final segment, after spring break, covers data privacy law and migration issues, the basics of the EU internal market and competition (antitrust) framework, and the EU's increasingly prominent and ambitious role as an international actor in its own right. The course offers a compressed survey of the constitutional, administrative, human rights, justice and home affairs, economic and foreign relations law of the European Union. The emphasis throughout is on institutional aspects and on the relationship between the EU and its member states, with comparisons to U.S. law as appropriate. In addition to the assigned reading in preparation for each week's meeting, the instructors will provide brief topical primary and other documents during each class period for reading and discussion. The course will also give attention to EU law research methods and sources, and students will write a 20- to 25-page research paper.

Law 137 Foreign Relations Law

- 3 Credits
- The conduct of American foreign policy is constrained by a great deal of law – on what the Constitution permits, what congressional enactments require, what domestic courts forbid or international authorities reprove. This course offers a survey of the legal terrain with a focus on defining historical disputes and contemporary controversies.

Law 235 Immigration Law

- 3 Credits
- Examines fundamental issues in immigration law of inadmissibility and deportability, relief from removal, asylum and refugee status, citizenship, nonimmigrant and immigrant visas, including labor certification, and administrative and judicial review.

Law 422 Immigration Policy Seminar

- 2 Credits
- This course will examine U.S. immigration policy as it is embodied in our laws and procedures and will ask how our nation's immigration policy reflect on our values as a nation. The course will discuss whom we let in, whom we keep out, how do we treat the people already here, and why. The course is broken down topically along the lines of a typical immigration law class, but this course is not concerned with the mechanics of the immigration laws. The class is intended to reach into the policy goals, the implications of policy, and the unintended consequences of poorly designed policies.

Law 022 Interbranch and Federalism Conflicts in National Security

- 2 Credits
- This course will cover various actual and potential disputes between the three coordinate branches over the conduct of foreign relations and the carrying out of national security policy including surveillance matters, authorizations for the use of military force and the conduct of specific military operations, the conduct of intelligence operations other than surveillance, including covert action and specific counterterrorism related programs, and the making of international agreements. The course will also examine federalism conflicts in foreign relations and national security law including interactions with foreign

states, trade, investments, and sanctions-related matters, as well as the application of federal authorities in the states in times of national crisis.

Law 248 International Law

- 3 Credits
- Considers traditional public international law issues and analyzes them in an economic and game-theoretic perspective. Emphasis is on basic concepts of public international law, including sources and evolution of international law; relation of international law to municipal law; subjects of international law; peaceful settlement of disputes; international agreements; jurisdictional competence; state responsibility and treatment of aliens; the use of force; and the evolving role of international organizations.

Law 253 International Trade Law & Regulation

- 3 Credits
- Covers the theory and practice of international trade law including U.S. laws and the World Trade Organization (WTO) regime. Includes trade remedy litigation (e.g. antidumping, countervailing duty, and safeguard investigations) and export controls for U.S. national security purposes (including the Directorate of Defense Trade Controls, U.S. Department of State (DDTC); the Bureau of Industry and Security, U.S. Department of Commerce (BIS); Office of Foreign Assets Control, U.S. Department of Treasury (OFAC)). Also examines domestic and international anti-bribery issues (including the U.S. Foreign Corrupt Practices Act (FCPA)).

Law 406 National Security Law Seminar

- 2 Credits
- An analysis of the interaction between counter-terrorism/counterintelligence operations and the protection of civil liberties. Key topics covered will include: Constitutional authority and oversight for national security operations, surveillance law, and the role of the criminal process.

Law 243 Privacy and Information Security Law

- 2 Credits
- The course explores the rapid development of the law governing the use and disclosure of personal and other information by government entities and private sector parties. The course also examines the emerging law regarding the obligation to protect information from misuse or access by unauthorized third parties and liability arising from such misuse or access.

Law 419 Prosecuting Terrorism & Cases Involving Nat'l Security

- 2 Credits
- This course analyzes the tools used to investigate and prosecute acts of terrorism and violations of national security laws. A research paper is required. The class is designed to highlight in practical terms the tension between protecting the nation's security versus protecting privacy and individual liberties. The course utilizes the "9-11 Commission Report" to give context for modern day investigations and prosecutions. It looks at constitutional issues associated with searches, seizures, confessions and freedom of the

press. It looks at electronic surveillance techniques, the use of classified information at trial, and substantive statutes used to prosecute cases.

Law 313 Refugee & Asylum Law

- 2 Credits
- This course will cover the international and U.S. refugee law regime, with a focus on asylum law in the United States. The course will trace the history and development of the United Nations 1951 Refugee Convention, the 1967 Protocol, and the U.S. Refugee Act of 1980. Students will become familiar with the key actors in the asylum and refugee law arena, including the United Nations High Commission for Refugees, international non-governmental organizations, the U.S. Congress, the Departments of Homeland Security and Justice, and the federal courts. Students will gain an understanding of the refugee definition as interpreted in the U.S.

Law 373 Separation of Powers Seminar

- 1 Credit
- This course will introduce students to the separation of powers issues inherent in the American system of government. The course will include an examination of the historical and pre-Constitutional understandings of the various functions, roles, and structures of government, including the philosophical underpinnings of the approaches considered by the Framers for the American constitutional system. The course will look at the various approaches, both as a legal and policy matter, taken to the separation of powers, as well as judicial decisions addressing these matters. The course will cover separation of powers issues related to a range of areas of law, including specifically national security and administrative law.

Law 416 Surveillance Law Seminar

- 2 Credits
- This seminar course will expose students to laws and policies relating to government surveillance, from traditional criminal wiretaps to high tech surveillance conducted as part of the global war on terrorism. The course will involve a survey of the Fourth Amendment's search and seizure caselaw and the application of that body of law to government surveillance efforts. Issues discussed will include: wiretaps in drug and organized crime cases; warrantless surveillance programs in the '60-'70s; legislative efforts to constrain surveillance; the expansion of government surveillance following the attacks of 9/11; and the implications of new surveillance technologies in an increasingly cyber- and technology-oriented world.

Law 647 Unmanned Aerial Systems Seminar

- 2 Credits
- The rapidly developing use of unmanned aerial systems [drones] for military, commercial and government purposes has serious implications for war, commerce, emergency work, privacy and other constitutional protections. It is also outpacing the legal framework needed to decide how best to utilize these devices. This is an area where legal thinking and legal policy are still in a formative state but are ripe for consideration. This subject nicely cuts across the law school's focus on law and economics, national security,

intellectual property rights and constitutional law. The class will examine current American and international law on unmanned aerial systems and the ethical, legal, commercial and constitutional issues of their use.

Law 397 War and Law

- 3 Credits
- Covers an array of legal issues, including questions of when military force is appropriate; the role of, and protections for, uniformed armies and who should serve in them; the proper treatment of conquered populations and non-combatants; treatment of prisoners-of-war and non-state actors; honorable behavior when waging asymmetric warfare; and the war powers of the American executive. This course will examine these and other issues in historical perspective, then deal with today's evolving standards.

Law 621 War and Law Seminar

- 2 Credits
- This course is identical to Law 397 with the exception that it is conducted as a seminar and will require a seminar paper.

Law 493: Computer Crimes Seminar

- 2 Credits
- This course will introduce students to the basic laws of computer crimes, including the Computer Fraud and Abuse Act and various laws relating to online piracy, inappropriate content, intellectual property protection, and the like. The course will also cover challenges relating to the investigation and prosecution of computer crimes including the gathering and validation of digital evidence and attribution of online activities.

Law 147: Corporate National Security Law

- 2 Credits
- This course will cover a range of national security related laws and related matters particularly applicable to companies operating both in the United States and abroad, including sanctions laws, trade laws, executive orders, the Foreign Corrupt Practices Act, the Foreign Agents Registration Act, the National Emergencies Act, the International Economic Emergency Power Act, the Foreign Sovereign Immunities Act, the Logan Act, and matters relating to the Committee on Foreign Investments in the United States.

Law 148: Covert Action, Clandestine, and Special Operations

- 2 Credits
- This course will introduce students to the domestic and international authorities, laws, and policies applicable to the use of covert action authorities abroad and the use of clandestine and military special operations forces. The course will cover the core separation of powers related issues regarding oversight of such activities by Congress, including specifically in the areas of counterterrorism operations and cyber activities. The course will review both the historical legal constraints and policies applicable to such activities as well as ongoing debates over the appropriate nature and scope of such activities and the relevant reporting and disclosure of such activities. The course will teach the law in this area in part by examining declassified examples of such

activities and focusing on the laws applied in such cases, the oversight conducted both before and after the activities, as well as the potential applicability of other laws and policies.

Law 348: Alternative Dispute Resolution

- 2 Credits
- Examines the various modes of resolving civil disputes and focuses on alternatives to litigation, including attorney negotiation, mediation, and arbitration. Concentrates on the structure of alternative methods of dispute resolution and implicated legal skills. The ethical considerations for a new model of attorney practice are also considered.

Law 388: Homeland Security Law

- 3 Credits
- This course provides an introduction to the policy, strategy and practical application of homeland security through an understanding of the authorizing laws, regulations, and polices that established DHS. This is a multi-faceted course that will expose students to complex intergovernmental and public-private sector policymaking, operational planning, and crisis management. The course is designed to promote subject matter understanding, critical analysis of issues, and insight into senior leader decision making. It also includes a practical examination of stakeholder interaction and key subject matter areas through an interactive tabletop exercise as well as other interactive opportunities throughout the course.

Law 221: Law of Armed Conflict and Military Operational Law

- 2 Credits
- This course will involve a deep examination of domestic and international law related to both *jus ad bellum*, the law applicable to the potential use of armed force, and *jus in bello*, the law applicable in the course of an armed conflict. The course will also examine the domestic authorities applicable to authorizing the use of force, as well as the laws and policies applicable to the actual conduct of war in an operational setting. The course will also specifically discuss the role of lawyers in warfighting today, including the role of lawyers in advising military commanders and others in the field. The course will cover matters related to the DOD Law of War Manual as well as the Operational Law Handbook for Military Commanders.

Law 657: Maritime and Space Law Seminar

- 2 Credits
- This course will focus on the domestic and international law and policies applicable to the maritime and space domains, including the Law of the Sea and the Outer Space Treaty. The course will examine the historical antecedents of modern law and the ways in which they have influenced the development of current constructs and will also examine proposals for modifications to such laws and policies, as well as emerging issues in these domains. The course will also examine the roles and responsibilities of lawyers advising military commanders and others operating in these domains and setting policy with respect to such operations.

Law 658: Operational Cyber and Intelligence Law Seminar

- 2 Credits
- This course will specifically focus on educating students on the laws and policies applicable to cyber and intelligence operations, including the application of domestic and international law, such as how the law of armed conflict principles of necessity, distinction, proportionality, and humanity apply to cyber and intelligence operations. The course will also examine the emerging issues in these areas, as well as proposals for modifications to existing domestic and international legal constructs in these areas. The course will also examine the oversight of such operations by the judicial and legislative branches of government and will explore matters related to the roles and responsibilities of lawyers advising military commanders and others on such matters.

Appendix C – Faculty Curriculum Vitae (abbreviated)

Full-Time Faculty

James C. Cooper, JD, George Mason University Law, 2000, Director, Research and Policy, Law and Economics Center, School of Law
Specialization Area(s): Law and Economics

Jonathan Davis, JD, New York University School of Law, 2009, Adjunct Professor
Specialization Area(s): International Law, Public International Law

Robert DeFrancesco, JD, American University Washington College of Law, Adjunct Professor
Specialization Area(s): International Trade, Business Transactions

Nuno Garoupa, LL.M., University of London; PhD, University of York, Professor of Law, Associate Dean for Research and Faculty Development & Faculty Director of Graduate Studies
Specialization Area(s): Comparative Law, Law and Economics, Comparative Judicial Politics

Bruce Johnson, PhD, University of Washington; JD, Emory University School of Law, Professor
Specialization Area(s): Business Associations, Law and Economics, Law of Investment Management, Securities Regulation

Joyce Malcolm, PhD Constitutional Law and Second Amendment, Brandeis University, Professor of Constitutional Law and Second Amendment
Specialization Area(s): British Constitutional and Criminal Law, Constitutional Law, Right to Self Defense, Second Amendment

Murat C. Mungan, JD, George Mason University; PhD, Boston College, Professor of Law
Specialization Area(s): Criminal Law, Antitrust, Corporations, Law and Economics

Jeremy Rabkin, PhD, Harvard University, Professor
Specialization Area(s): International law, Administrative Law, Constitutional History, Law of Armed Conflict, Statutory Interpretation

Megan Stevenson, PhD, University of California, Berkeley, Assistant Professor of Law
Specialization Area(s): Econometric Analysis of Criminal Law and Policy

Adjunct Faculty

Charles Adkins-Blanch, JD, George Washington University, Adjunct Professor
Specialization Area(s): Immigration

Carter Burwell, JD, University of Virginia, Adjunct Professor
Specialization Area(s): Prosecuting Terrorism

Laurie Ball Cooper, JD, Yale Law School, Adjunct Professor
Specialization Area(s): Refugee, Asylum Law

Jonathan Davis, Adjunct Professor
Specialization Area(s): International Law

Darren Dick, JD, University of Kansas School of Law, Adjunct Professor
Specialization Area(s): Intelligence, Surveillance, Cybersecurity, National Security Law

Timothy Feighry, JD, Fordham University, Adjunct Professor
Specialization Area(s): European Law, Comparative Law

Dennis Fitzpatrick, JD, University of Maine School of Law, Adjunct Professor
Specialization Area(s): National Security Law

Julia Follick, JD, Gerogetown University, Adjunct Professor
Specialization Area(s): Immigration law

Boyden Gray, JD, University of North Carolina Distinguished Adjunct Professor
Specialized Area(s): Administrative Law, Regulatory Practice

Rodney Harrell, JD, George Mason University, Adjunct Professor
Specialized Area(s): US law

Robert Harris, Adjunct Professor
Specialization Area(s): International Law

Jamil Jaffer, JD, University of Chicago Law School, Adjunct Professor, NSI Founder, and
Director, National Security Law & Policy Program.
Specialization Area(s): National Security Law

Robert Ledig JD, George Washington University, Professor of Law and Director, Financial
Regulation & Technology Institute
Specialization Area(s): Banking and Financial Institutions, Financial Technology, Financial
Stability, Enforcement, Corporate Governance, Privacy.

John Lipsey, JD, University of San Diego School of Law, Adjunct Professor
Specialization Area(s): Government Affairs, Public Policy

Timothy M. MacArthur, JD, Michigan State University/Detroit College of Law, 2001, Clinical
Professor
Specialization Area(s): National Security Law

Angel Martinez, JD, American University Washington College of Law, Adjunct Professor
Specialization Area(s): US law

James McCament, JD, University of Notre Dame Law School, Adjunct Professor.
Specialization Area(s): Homeland Security

David Neal, JD, Columbia University, Adjunct Professor
Specialization Area(s): Immigration

Daniel Pickard, JD, Golden Gate University School of Law; LLM, Georgetown University Law Center, Adjunct Professor
Specialization Area(s): International Trade, Business Transactions

Kiran Raj, JD, Emory University School of Law, Adjunct Professor
Specialization Area(s): Cybersecurity

Arthur Rizer, Master of Laws, Georgetown University Law Center. Adjunct Professor
Specialization Area(s): Immigration, Criminal Justice, Civil Liberties

Stephen Shannon, JD, Virginia School of Law, Adjunct Professor
Specialization Area(s): Criminal Law, Prosecuting Terrorism, National Security Law

Evan Wolff, Adjunct Professor
Specialization Area(s): Homeland Security

ITEM NUMBER:

Master of Science (MS), Climate Science

PURPOSE OF THE ITEM:

A proposal to establish a new Master of Science (MS) in Climate Science has been prepared for submission to the State Council of Higher Education for Virginia (SCHEV). Prior to SCHEV submission, Board action is required.

APPROPRIATE COMMITTEE:

Academic Programs, Diversity, and University Community Committee

BRIEF NARRATIVE:

The College of Science requests permission to establish a new research degree.

The purpose of the proposed MS in Climate Science program is to educate students to interpret and analyze past, present and projected climate data for use in both the public and private sectors. The program will provide students with a thorough understanding of the processes that influence weather and climate variations as well as training in climate modeling and climate data analytics so that they can translate data into meaningful strategies to address the scientific and societal challenges arising from climate variability and climate change. Graduates of the program will be prepared to interpret and explain climate data to leaders in both the public and private sectors. Graduates will understand how to use available data to build and use climate models tailored to specific purposes, and to analyze and interpret data that can be easily transferred into practical strategies for mitigating and managing the effects of climate change.

REVENUE IMPLICATIONS:

The program will be revenue-neutral at launch. The program will not require the hiring of new faculty, new equipment, or new space to operate.

STAFF RECOMMENDATION:

Staff recommends approval of the proposed program.

**STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
PROGRAM PROPOSAL COVER SHEET**

1. Institution George Mason University	2. Academic Program (Check one): New program proposal <input checked="" type="checkbox"/> Spin-off proposal <input type="checkbox"/> Certificate document <input type="checkbox"/>
3. Name/title of proposed program Climate Science	4. CIP code 40.0401
5. Degree/certificate designation Master of Science (MS)	6. Term and year of initiation Fall 2019
7a. For a proposed spin-off, title and degree designation of existing degree program 7b. CIP code (existing program)	
8. Term and year of first graduates Spring 2020	9. Date approved by Board of Visitors
10. For community colleges: date approved by local board date approved by State Board for Community Colleges	
11. If collaborative or joint program, identify collaborating institution(s) and attach letter(s) of intent/support from corresponding chief academic officers(s)	
12. Location of program within institution (complete for every level, as appropriate and specify the unit from the choices). Departments(s) or division of <u>Dept. of Atmospheric, Oceanic and Earth Sciences</u> School(s) or college(s) of <u>College of Science</u> Campus(es) or off-campus site(s) <u>Fairfax Main Campus</u>	
Mode(s) of delivery: face-to-face <input checked="" type="checkbox"/> hybrid (both face-to-face and distance) <input type="checkbox"/>	Distance (51% or more web-based) <input type="checkbox"/>
13. Name, title, and telephone number(s) of person(s) other than the institution's chief academic officer who may be contacted by or may be expected to contact Council staff regarding the modified program. Dr. Claudia Rector, Assistant Provost, (703) 993-8679, crector@gmu.edu Dr. Padmanabhan Seshaiyer, Assoc. Dean, (703) 993-9787, pseshaiy@gmu.edu	

TABLE OF CONTENTS

PROGRAM PROPOSAL COVER SHEET	I
DESCRIPTION OF THE PROPOSED PROGRAM.....	1
PROGRAM BACKGROUND	1
MISSION	2
ADMISSION CRITERIA	2
TARGET POPULATION	2
CURRICULUM	3
STUDENT RETENTION AND CONTINUATION PLAN	5
FACULTY	6
PROGRAM ADMINISTRATION	6
STUDENT ASSESSMENT.....	7
EMPLOYMENT SKILLS/WORKPLACE COMPETENCIES.....	9
PROGRAM ASSESSMENT	9
BENCHMARKS OF SUCCESS.....	9
EXPANSION OF EXISTING PROGRAMS	10
RELATIONSHIP TO EXISTING GEORGE MASON UNIVERSITY DEGREE PROGRAMS.....	10
COMPROMISING EXISTING DEGREE PROGRAMS	10
COLLABORATION OR STANDALONE.....	10
JUSTIFICATION FOR THE PROPOSED PROGRAM	11
RESPONSE TO CURRENT NEEDS (SPECIFIC DEMAND)	11
EMPLOYMENT DEMAND	17
STUDENT DEMAND	18
SUMMARY OF PROJECTED ENROLLMENTS IN PROPOSED PROGRAM	19
DUPLICATION	19
PROJECTED RESOURCE NEEDS FOR THE PROPOSED PROGRAM.....	21
RESOURCE NEEDS	21
APPENDICES	27
APPENDIX A – SAMPLE PLANS OF STUDY.....	1
APPENDIX B – COURSE DESCRIPTIONS	1
APPENDIX C – ABBREVIATED FACULTY CURRICULUM VITAE.....	1
APPENDIX D – LETTERS OF SUPPORT FOR SPECIFIC DEMAND.....	ERROR! BOOKMARK NOT DEFINED.
APPENDIX E – LETTERS OF SUPPORT FOR EMPLOYMENT DEMAND	ERROR! BOOKMARK NOT DEFINED.
APPENDIX F – JOB ADVERTISEMENTS.....	ERROR! BOOKMARK NOT DEFINED.
APPENDIX G – STUDENT SURVEY.....	ERROR! BOOKMARK NOT DEFINED.
APPENDIX G – STUDENT SURVEY	ERROR! BOOKMARK NOT DEFINED.

Description of the Proposed Program

Program Background

George Mason University seeks approval for a Master of Science (MS) in Climate Science degree program, to be implemented in the Fall 2019 semester. The proposed program will be administered by the Department of Atmospheric, Oceanic and Earth Sciences in the College of Science.

The purpose of the proposed MS in Climate Science program is to educate students to interpret and analyze past, present and projected climate data for use in both the public and private sectors. The program will provide students with a thorough understanding of the processes that influence weather and climate variations as well as training in climate modeling and climate data analytics so that they can translate data into meaningful strategies to address the scientific and societal challenges arising from climate variability and climate change. Graduates of the program will be prepared to interpret and explain climate data to leaders in both the public and private sectors. Graduates will understand how to use available data to build and use climate models tailored to specific purposes, and to analyze and interpret data that can be easily transferred into practical strategies for mitigating and managing the effects of climate change.

The U.S. government, the National Academy of Sciences (NAS), and the World Economic Forum (WEF) have declared extreme weather events and climate change to be serious global hazards.¹ Climate changes pose a fundamental threat to the world's economy and environment, as well to human health and safety. With the impending threat of catastrophic consequences due to climate change, federal, state and local governments—as well as the private sector and nongovernmental organizations—need a well-educated workforce with advanced climate science expertise to develop weather-crisis response plans, monitor air quality data, maintain weather tracking systems and support weather satellite mission information. The Commonwealth of Virginia is experiencing the environmental, social and economic challenges posed by changing weather patterns. Extreme weather and sea level rise threaten the vitality of the Chesapeake Bay, which has a tremendous impact on every sector of Virginia's economy. Climate change is having serious consequences on the infrastructure, property and overall economy of Virginia and its residents. The proposed degree program will address these issues by preparing graduates to understand changes in climate and work in and with business and government to develop the appropriate interventions to mitigate and manage the impact of climate change.

The proposed MS in Climate Science is distinct from other climate-oriented MS degrees, and would be the first of its kind in the Commonwealth of Virginia. The traditional MS degree involving the study of climate is in Atmospheric Science. Historically, however, the Atmospheric Science discipline has been primarily associated with weather (day-to-day atmospheric variations) rather than climate (average atmospheric behavior for a season or longer.) The proposed program is unique in its thorough, technical study of climate science and associated modeling and data analysis.

¹ Sam Meredith, "Top Five Global Risks for 2017: WEF," CNBC website, January 11, 2017, <https://www.cnbc.com/2017/01/11/top-five-global-risks-for-2017-wef.html>. (Accessed September 17, 2018.)

Mission

The mission of George Mason University is as follows:

“A public, comprehensive, research university established by the Commonwealth of Virginia in the National Capital Region, we are an innovative and inclusive academic community committed to creating a more just, free, and prosperous world.”

The MS in Climate Science directly serves to fulfill the mission of George Mason University in that it will 1) provide an innovative, interdisciplinary graduate course of study—the first master’s program in the Commonwealth of Virginia to be centered on the emerging field of climate science—that enables students to become pioneering future leaders in the fields of climate science and policy, and 2) provide a graduate program that will train students to help mitigate the disproportionate impact of climate change on the world’s vulnerable populations and climate-dependent businesses so as to ensure the freedom and prosperity of these people and organizations.

Admission Criteria

All students will be required to complete the admission requirements of the University.

Admission to the MS in Climate Science program will require the following:

- A completed application and application fee.
- A baccalaureate degree from a regionally-accredited institution or an equivalent degree from an international institution.
- A minimum 3.00 GPA on a 4.00 scale in baccalaureate study.

Students will not be required to submit GRE scores.

Students from non-US institutions will be required to report their TOEFL score. Minimum TOEFL scores include:

- BT: 88 points total AND a minimum of 20 points in each section
- CBT: 230 points
- PBT: 570 points

In addition, the Department of Atmospheric, Oceanic and Earth Sciences requires students to have completed a course in calculus, statistics, physics and basic computer programming.

Target Population

The primary target population includes students who have completed an undergraduate degree or undergraduate coursework in atmospheric science, physical science, mathematics, or engineering.

A secondary target population includes working science professionals seeking to expand their knowledge of climatology, climate modeling and climate data in order to obtain professional advancement.

Curriculum

The proposed Master of Science in Climate Science program is a 30-credit hour degree program. No thesis option will be offered.

The proposed program will provide students with a thorough grounding in the basic physics of atmospheric science and related disciplines like oceanography, hydrology, paleoclimatology and ecology, as well as advanced knowledge of climate data management practices including quality control, curation and data accessibility. Core coursework focuses on the fundamental physical principles underlying climate behavior, and includes the study of atmospheric dynamics, the basis of global warming and the interrelationship between land surfaces, water and weather. It is unique in its focus on climate (average atmospheric behavior for a season or longer) as opposed to weather (day-to-day atmospheric variations). Students must take three semesters of a 1-credit seminar course to obtain exposure to current climate science research topics. Students are required to choose one of two concentrations. The Climate Modeling concentration allows students to further explore the dynamics and modeling of the climate system. The Climate Data concentration develops proficiency in processing, analyzing, and applying climate data. Students will also have the opportunity to select from electives that focus on climate science, mathematics, computational science and/or geographic information systems. Graduates will develop expertise in running climate models and interpreting climate data, thereby cultivating the skills necessary to work with climate models in a national laboratory, independent research lab or commercial setting.

Program Requirements:

Core Courses: 18 credits

- CLIM 511: Atmospheric Dynamics (3 credits)
- CLIM 512: Physical Oceanography (3 credits)
- CLIM 610: Introduction to the Physical Climate System (3 credits)
- CLIM 614: Land-Climate Interactions (3 credits)
- CLIM 690: Scientific Basis of Climate Change (3 credits)
- CLIM 991: Climate Dynamics Seminar (1 credit, repeated 3 times)

Concentration Courses: 6 credits

Students choose one of the following concentrations:

Climate Modeling:

- CLIM 670: Earth System Modeling (3 credits)
- One Climate Science restricted elective course (3 credits)

Climate Data:

CLIM 680: Climate Data (3 credits)

One Mathematics, Computational Science or Geographic Information Systems restricted elective course (3 credits)

Restricted Elective Courses: 6 credits

The restricted electives have been divided into three categories. A course may not be counted in both the core component and as a restricted elective.

Restricted Electives: Climate Science

CLIM 680: Climate Data (3 credits)

CLIM 713: Atmosphere-Ocean Interactions (3 credits)

CLIM 750: Geophysical Fluid Dynamics (3 credits)

CLIM 751: Predictability and Prediction of Weather and Climate (3 credits)

CLIM 752: Ocean General Circulation (3 credits)

CLIM 753: General Circulation of the Atmosphere (3 credits)

CLIM 754: Elements of the Tropical Climate System (3 credits)

GEOL 532: Paleoclimatology (3 credits)

GEOL 535: Quantitative Stratigraphy (3 credits)

GEOL 565: Paleoceanography (3 credits)

GGG 670: Introduction to Atmosphere and Weather (3 credits)

Restricted Electives: Mathematics, Computational Science and Geographic Information Systems

CDS 501: Scientific Information and Data Visualization (3 credits)

CLIM 670: Earth System Modeling (3 credits)

CLIM 715: Numerical Methods for Climate Modeling (3 credits)

CLIM 762: Statistical Methods in Climate Research (3 credits)

CLIM 763: Advanced Statistical Methods in Climate Research (3 credits)

CSI 501: Introduction to Scientific Programming (3 credits)

CSI 690: Numerical Methods (3 credits)

PHYS 510: Computational Physics I (3 credits)

GEOL 525: Modeling Earth Signals and Systems (3 credits)

GEOL 553: Field Mapping Techniques (3 credits)

GGG 553: Geographic Information Systems (3 credits)

GGG 563: Advanced Geographic Information Systems (3 credits)

GGG 650: Introduction to GIS Algorithms and Programming (3 credits)

GGG 680: Earth Image Processing (3 credits)

GGG 692: Web-based Geographic Information Systems (3 credits)

Restricted Electives: Climate-Relevant Topics

AIT 580: Analytics: Big Data to Information (3 credits)

AIT 582: Applications of Metadata in Complex Big Data Problems (3 credits)

BIOL 650: Environment Analysis and Modeling (4 credits)

CDS 502: Introduction to Scientific Data and Databases (3 credits)

COMM 660: Climate Change and Sustainability Communication Campaigns (3 credits)
CS 504: Principles of Data Management and Mining (3 credits)
CSI 600: Quantitative Foundations for Computational Sciences (3 credits)
CSI 662: Introduction to Space Weather (3 credits)
GEOL 506: Soil Science (3 credits)
GEOL 513: Hydrogeology (3 credits)
GEOL 563: Coastal Morphology and Processes (4 credits)
GGS 507: Sustainable Development (3 credits)
GGS 531: Land-use Modeling Techniques and Applications (3 credits)
GGS 550: Geospatial Science Fundamentals (3 credits)
GGS 579: Remote Sensing (3 credits)
GGS 656: The Hydrosphere (3 credits)
EVPP 506: Science of the Environment I (3 credits)
EVPP 507: Science of the Environment II (3 credits)
EVPP 529: Environmental Science Communication (3 credits)
EVPP 542: Urban Ecosystems and Processes (4 credits)
EVPP 543: Tropical Ecosystems (4 credits)
EVPP 550: Waterscape Ecology and Management (3 credits)
EVPP 607: Fundamentals of Ecology (3 credits)
EVPP 637: Human Dimensions of Climate Change (3 credits)

Total: 30 Credit Hours

Sample plans of study are provided in Appendix A. Course descriptions are provided in Appendix B.

Student Retention and Continuation Plan

The department is committed to the success of every student admitted to the proposed program. All students will be expected to meet with their faculty advisor at least once per semester to discuss academic progress and to make any necessary updates to their plan of study. In addition to regular in-class interaction with students, faculty in the proposed program will meet regularly as a group to discuss the performance of all students in the program.

Faculty will also keep track of those students who are not successfully progressing through the proposed program. If a student is discovered to be making insufficient progress, the program faculty will meet to discuss targeted, individualized solutions. The faculty member who pinpointed the issue will schedule a meeting with the student to discuss the issue. The student's faculty advisor will be invited to attend the meeting.

If progress/resolution does not occur in a timely manner (e.g., by the end of the course or semester), the student will be asked to meet with the program faculty as a group. Issues of concern and a specific plan of improvement, including goals and timelines, will be outlined in a document signed by both the student and the faculty advisor.

Faculty

The Department of Atmospheric, Oceanic, and Earth Sciences has thirteen tenured, three tenure-track and five term (contractual, non-tenured) faculty members. Seven faculty members will teach required courses for the proposed MS in Climate Science. Faculty teaching in the proposed program will hold a doctorate in an appropriate discipline such as meteorology, Earth science, geology, oceanography or atmospheric science.

No adjunct faculty will be used to initiate the proposed degree program.

Department of Atmospheric, Oceanic, and Earth Sciences faculty have expertise in all elements of climate dynamics. Twelve faculty members have specialties in atmospheric science and/or physical oceanography. Ten of these faculty members are affiliated with the university's Center for Ocean-Land-Atmosphere Studies (COLA), which was established to improve understanding and prediction of Earth's climate variations on seasonal, interannual, and decadal scales, with a special emphasis on the interactions between Earth's atmosphere, oceans, and land surfaces. Additional strengths of the department include atmospheric and ocean modeling, tropical climate variability and circulation of the atmosphere and ocean. Department faculty have been honored with awards by the American Meteorological Society (AMS), including its highest awards of Honorary Member and the Rossby Gold Medal (Prof. Shukla), and three faculty members are Fellows of the AMS. Prof. Kinter is currently serving as a member of the AMS Council, its governing body. Two faculty members are Fellows of the American Geophysical Union. Several faculty members are or have been editors of prestigious academic journals, currently including chief editor of the Journal of Climate (Prof. DelSole) and editor of the Journal of Advances in Modeling Earth Systems (Prof. Dirmeyer). Several members of the faculty have contributed to the Intergovernmental Panel on Climate Change assessments and have served in advisory capacities at the highest level to federal agencies and the National Center for Atmospheric Research. The Department of Atmospheric, Oceanic, and Earth Sciences also employs nine geologists, two with expertise in paleoclimate and paleoceanography.

Faculty from the Departments of Geography and Geoinformation Sciences, Geology, Computational Science and Informatics, Biology, Public Policy, Environmental Science and Policy, Physics, Communication, Computational and Data Sciences, and Astronomy will teach elective courses in the proposed program.

See Appendix C for abbreviated CVs of faculty.

Program Administration

The proposed MS in Climate Science program will have a faculty program director already employed by the department who will teach in the program. The director will have primary responsibility for overseeing curriculum, admissions, advising and other administrative issues. The faculty program director will devote approximately 25% of his time to managing the program.

An administrative assistant currently employed in the Department of Atmospheric, Oceanic, and Earth Sciences, will support the program. The administrative assistant will help with application processing, course scheduling and registration issues. She will devote approximately 20% of her time to supporting the proposed program.

Student Assessment

Every student who completes an MS degree will have mastered a set of skills that are needed to work as a professional in climate modeling or climate data analysis.

Students will be assessed in each course through various mechanisms that include (1) projects, (2) homework assignments, (3) term papers, and (4) exams.

One of the ways in which students can gain skills in these areas is through completion of coursework.

The learning outcomes for the MS in Climate Science are specific to graduate level knowledge, skills, and abilities that students should acquire in the proposed degree program. Faculty worked with staff members in Mason's Office of Assessment to develop learning outcomes and appropriate measures.

Learning Outcomes

Students will be able to:

1. Solve quantitative problems about atmospheric variability.
2. Solve quantitative fluid dynamics problems.
3. Solve quantitative problems about land surface influences on climate.
4. Solve quantitative problems about ocean influences on climate.
5. Understand /operate/use climate models.
6. Process and statistically analyze climate data.

A Curriculum Map for the proposed MS in Climate Science program is provided below.

MS Climate Science Curriculum Map

	Core Climate Courses					Climate Modeling Concentration	Climate Data Concentration
	CLIM 610 Physical Climate	CLIM 614 Land-Climate Interactions	CLIM 511/711 Atmospheric Dynamics	CLIM 512/712 Ocean Dynamics	CLIM 690 Climate Change	CLIM 670 Earth System Modeling	CLIM 680 Climate Data
1. Solve quantitative problems about atmospheric variability	X	X			X		
2. Solve quantitative fluid dynamics problems		X	X	X			
3. Solve quantitative problems about land surface influences on climate	X	X			X		
4. Solve quantitative problems about ocean influences on climate	X			X	X		
5. Understand /operate/use climate models						X	
6. Process and statistically analyze climate data							X

Employment Skills/Workplace Competencies

Graduates of the MS in Climate Science degree program will be able to:

- Extract and analyze weather and climate observations.
- Interpret the output of weather and climate models.
- Evaluate and critique weather- and climate-related scientific literature and media reports.
- Advise governments, businesses, and non-governmental organizations on issues relevant to climate-sensitive decisions and processes.
- Develop, revise and write climate-oriented technical proposals, reports and position papers.
- Produce climate predictions and communicate weather and climate information graphically, verbally and in writing.
- Run climate models on supercomputers (Climate Modeling concentration).
- Process and manipulate large data sets focused on weather and climate (Climate Data concentration).

Program Assessment

The Department of Atmospheric Oceanic and Earth Sciences (AOES) will assess and evaluate the proposed program after the initial year. The Department will also engage in an annual assessment of the curriculum. A yearly exit interview with graduating students will assess students' progress and satisfaction with the program. Faculty will utilize the results of the exit interviews to assess the program. Faculty will also review yearly employment needs for climate data professionals to ensure the curriculum is meeting the educational needs of the industry. Students in courses selected for curriculum evaluation will be asked to indicate how well the learning objectives have been addressed by the course.

The AOES Faculty will periodically review the program to ensure that the curriculum is relevant and pertinent to the discipline.

The proposed MS in Climate Data will be reviewed on the seven-year cycle typical of programs within the College of Science. Program review takes place under the guidance of the Office of Institutional Assessment and Effectiveness and requires four semesters to complete. The outcomes of the process are a series of deliverables—a self-assessment report and academic plan written by program faculty, and a report by a review team external to the program—and associated planned changes to enhance the program. AOES is scheduled for review of its programs beginning in 2023, with the self-assessment and academic action plan due in 2024.

Benchmarks of Success

The benchmarks of success of this program will include:

1. The program will graduate at least 80% of full-time students within 2 years.

2. The program will graduate at least 80% of part-time students within 4 years.
3. Within one year of graduation, at least 75% of graduates will find employment within the field.
4. At least 75% of graduates will indicate, in exit interview, satisfaction with the degree program.

If these benchmarks are not met, the AOES program faculty will determine which benchmarks were unsuccessful and why. For example, if students are not adequately satisfied with the degree program, faculty will review areas such as student services and advising support, course scheduling and course content to determine which areas need adjustment.

Expansion of Existing Programs

The MS in Climate Science is not an expansion of an existing concentration, focus area, emphasis area, major, minor or track.

Relationship to Existing George Mason University Degree Programs

The proposed MS in Climate Science is not similar to any existing degree program at George Mason University. The degree program can be initiated without compromising or negatively impacting any existing degree program in the College of Science.

The proposed MS in Climate Science will complement the department's existing MS in Earth Systems Science, which is administered jointly with the Department of Geography and Geoinformation Sciences. The proposed program differs from the MS in Earth Systems Science by requiring more atmosphere and climate-related subject courses such, as Atmospheric Dynamics, and climate data and modeling courses, instead of the additional courses in geology and geographic techniques required by the Earth Systems Science MS.

The proposed MS in Climate Science will also complement the existing bachelor's program in Atmospheric Science and the existing doctoral program in Climate Dynamics.

Compromising Existing Degree Programs

No degree programs will be compromised or closed as a result of the initiation and operation of the proposed degree program.

Collaboration or Standalone

This is a stand-alone program. No other organization was involved in its development, and no other organization will collaborate in its operation.

Justification for the Proposed Program

Response to Current Needs (Specific Demand)

The understanding of climate science is essential to the interpretation of modern climate variations and the measurement of their impact. Recent and rapid changes in climate have increased the occurrence of heat waves and droughts, increased sea level and increased extreme weather variability. “Climate-related changes... in the United States... include increases in air and water temperatures, reduced frost days, increased frequency and intensity of heavy downpours, a rise in sea level, and reduced snow cover, glaciers, permafrost, and sea ice... These climate-related changes are expected to continue while new ones develop.”² These climate changes are creating new threats to industries, municipalities and nations. Professionals knowledgeable in climate science are needed to interpret and analyze past, present and projected climate data to effectively combat these threats in the public and private sectors. Climate data must be analyzed and interpreted accurately and appropriately to formulate useful responses and plan actions to meet specific climate challenges.

Currently, however, many professionals using and interpreting climate data are not trained at the educational level necessary to use climate data models effectively or analyze and interpret data accurately. A 2015 World Meteorological Organization *Bulletin* describes how much of the output of modern climate scientists “remains beyond the understanding of end-users [and] thus cannot be integrated into policies.”³ The *Bulletin* goes on to state, “Potential climate model users also face several other challenges: many do not have the expertise to choose the best model (or ensemble of models), nor the adequate knowledge of science to apply them.”⁴ An advanced understanding of climate data, and the ability to utilize climate models—such as is provided at the master’s degree level—is needed to train users to use, analyze and apply data models effectively.

The proposed MS in Climate Science responds to current needs in the Commonwealth of Virginia and the nation by educating students to be climate professionals who can analyze and model advanced climate data. There are significant and distinct needs in both private and public sectors for professionals who can work with climate data and models effectively and accurately, and currently educational offerings are not meeting those needs.

Commercial Needs

There are growing commercial needs for trained professionals with expertise in climate data analysis and interpretation, in part because the effects of climate change are already being felt in multiple business domains. A 2017 Harvard Business School article states, “The immediate

² U.S. Global Change Research Program, “Executive Summary,” *Global Climate Change Impacts in the United States*, 2009 Report. <https://nca2009.globalchange.gov/executive-summary/index.html> (Accessed September 4, 2018).

³ Kyra Bell-Pasht and Dana Krechowicz, “Why Does Access to Good Climate Data Matter?” *World Meteorological Organization Bulletin* 64, no. 2, 2015, <https://public.wmo.int/en/resources/bulletin/why-does-access-good-climate-data-matter>.

⁴ Ibid.

effects of climate change are already threatening the viability of existing business practices in agriculture, infrastructure, and construction.”⁵ Kyra Bell-Pasht and Dana Krechowicz note that current weather evolution has become a major factor in basic business practice. The authors write, “Both private and public sector decision-makers need accessible, credible and relevant climate information to increase resilience to the more intense and frequent weather extremes scientists foresee as a potential consequence of climate change... health and much more can be strengthened by gaining a better understanding of future climate.”⁶ Climate and weather plays an integral role in several business domains, notably agriculture, construction, and transportation, and climate change will increase the number of business areas affected by climate and weather. In *A National Strategy for Advancing Climate Modeling*, the National Academy of Sciences, Engineering and Medicine describes how multiple business sectors rely on climate data. The Academy states, “Information about climate is used to make decisions every day. From farmers deciding which crops to plant next season to mayors in large cities deciding how to prepare for future heat waves, and from an insurance company assessing future flood risks to a national security planner assessing future conflict risks from the impacts of drought, users of climate information span a vast array of sectors in both the public and private spheres. Each of these communities has different needs for climate data, with different time horizons and different tolerances for uncertainty.”⁷ A 2017 National Weather Service (NWS) Enterprise Analysis Report asserts “three main reasons for the increasing value of weather information to the economy,” including (1) an increasing cost of disaster damage; (2) increasing sophistication in businesses’ ability to make use of weather data and respond to events; and (3) businesses finding new uses for weather data for decision making.⁸ The NWS notes, “There is increasing global demand for weather services as weather events have become more volatile and costly,” noting that the average number of \$1B weather events per year doubled between 2008-15 compared with the previous 35 years.⁹ The NWS report estimates that “between three-to-six percent of variability in [the] US GDP can be attributed to weather (up to \$1,334B annually using 2011-2014 GDP estimates).”¹⁰ With such substantial impacts to the economy, the importance of the effective use and application of weather- and climate-related data in industry will only increase.

Further, climate data services have emerged as a new industry that reflects both the expanded need for applied climate knowledge and the increasing availability of climate data. New climate data services companies, such as Jupiter, Prescient Weather, Accuweather D³, can interpret and analyze climate data for businesses who don’t have their own specialized climate scientists.

⁵ Rebecca Henderson, Sophus Reinert, Polina Dekhtyar, and Amram Migdal, “Climate Change in 2017: Implications for Business,” *Harvard Business School*, 9-317-032, (June 2017), p.10, (http://www.hbs.edu/environment/Documents/Climate_Change_2017.pdf)

⁶ Kyra Bell-Pasht and Dana Krechowicz, “Why Does Access to Good Climate Data Matter?” *World Meteorological Organization Bulletin* 64, no. 2, 2015, <https://public.wmo.int/en/resources/bulletin/why-does-access-good-climate-data-matter>.

⁷ National Academy of Sciences, Engineering and Medicine, *A National Strategy for Advancing Climate Modeling*. (National Academies Press, 2013), p. 1, <https://www.nap.edu/read/13430>.

⁸ National Weather Service, *National Weather Service Enterprise Analysis Report: Findings on Changes in the Private Weather Industry*,” June 8, 2017, https://www.weather.gov/media/about/Final_NWS%20Enterprise%20Analysis%20Report_June%202017.pdf, p. 10. (Accessed September 17, 2018).

⁹ Ibid, p. 2. (Accessed September 17, 2018)

¹⁰ Ibid, p. 2. (Accessed September 17, 2018)

(Established corporations are also expanding into this market, such as IBM's The Weather Company.) A recent article in *Science Advances* stresses the importance of appropriate and accurate analysis of climate data to respond to climate change-oriented challenges. In the article, Lucien Georgeson, Mark Maslin and Martyn Poessinouw state, "Data availability... has increased markedly over the last decades, leading to a rapid expansion in weather and climate services. The data have often been provided free by governments and other publicly funded bodies, but interpretation and analysis of the data for specific needs is essential..."¹¹ There is a clear need for more people who have the knowledge and expertise to interpret and apply climate data in the public and private sectors.

Rapid growth in this climate information sector of the economy represents job opportunities for those with climate expertise and capability in data and modeling. Spending on global weather and climate information services is estimated to grow at 8% per year, with \$56 billion in spending in 2015. Of this spending, \$41 billion was in the private sector, \$26 billion was for climate-oriented services, and nearly \$18 billion was focused in North America.¹² Lucien Georgeson, Mark Maslin and Martyn Poessinouw argue for the creation of a workforce trained to manipulate this far-reaching data, so that its impact can be appropriately measured, understood, and shared to help businesses plan to mitigate and manage the costs associated with climate change. The authors state, "When weather or climate data are combined with economic, demographic, or thematic data, they can be analyzed in a way that makes them relevant to the specific needs of public and private actors."¹³ Climate change is significantly impacting businesses on a national and global scale and professionals trained to interpret climate data to produce actionable information are in demand.

Effective Public Management

Similarly, federal, state and local government agencies are also increasingly in need of experts who can inform efforts to address climate change challenges. The United States and other countries are devoting extra resources to studying climate and its impact on public infrastructure, management and services. In a May 2017 *Science Advances* article, Jonathan Overpeck, Gerald Meehl, Sandrine Bony and David Easterling describe how the public sector relies on climate data to advise their policy making. "Climate data are dramatically increasing in volume and complexity," assert the authors, "just as the users of these data in the scientific community and the public are rapidly increasing in number...an increasing number of resource managers (working in fields such as water, public lands, health, and marine resources) need and are seeking access to climate data to inform their decisions, just as a growing range of policy-makers rely on climate data to develop climate change strategies."¹⁴ Some examples of climate influence on governmental decision-making include the impacts of high-heat days on public health,

¹¹ Lucien Georgeson, Mark Maslin and Martyn Poessinouw, "Global Disparity in the Supply of Commercial Weather and Climate Information Services," *Science Advances*, 3, no. 5 (May 2017), <http://advances.sciencemag.org/content/3/5/e1602632.full>.

¹² Ibid.

¹³ Ibid.

¹⁴ Jonathan T. Overpeck, Gerald A. Meehl, Sandrine Bony and David R. Easterling, "Climate Data Challenges in the 21st Century," *Science*, 331 (February 2011), p. 700, https://www.researchgate.net/publication/49826559_Climate_Data_Challenges_in_the_21st_Century. (Accessed September 17, 2018.)

drought on the water supply, and flooding (from extreme rainfall events and from sea level rise) on transportation and road construction, as well as the effects of ecosystem changes on management of public lands. Planners and decision makers at all levels of government need to incorporate climate knowledge to reduce the public's vulnerability to extreme weather variations, meaning that there is also a need for professionals who can interpret and explain climate data for the planners and decision makers.

In addition to government agencies, the U.S. military has also acknowledged the urgency of addressing climate change, in part because extreme weather changes impact the stability of areas of the world where US troops are stationed and operating. A July 2015 Department of Defense report acknowledges the significant risk of climate change to US global interests, stating, "Climate change is an urgent and growing threat to our national security, contributing to increased natural disasters, refugee flows, and conflicts over basic resources such as food and water. These impacts are already occurring, and the scope, scale, and intensity of these impacts are projected to increase over time."¹⁵ The effects of a changing climate impact the US military's resources, security and readiness. To that extent, having an appropriate number of suitably trained professionals who can use climate data to model and predict future changes is a component of national security.

Public managers and government planners are attempting to utilize climate data to determine the potential impact of climate change on the public. In "Climate Change 2013: The Physical Science Basis: Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change," the editors write, "Climate models are extremely sophisticated computer programs that encapsulate our understanding of the climate system... The complexity of climate models... has increased substantially since... 1990. ... More powerful supercomputers allow current models to resolve finer spatial detail. Today's models also reflect improved understanding of how climate processes work."¹⁶ As this data becomes more intricate, the ability to understand advanced data manipulation and climate modeling has increased in importance while also requiring increasingly more sophisticated knowledge.

Furthermore, as more connections between climate change and modern human activity are uncovered, climate modeling and forecasting is needed to understand and predict these linkages, knowledge that is important for public policy and planning. In "A National Strategy for Advancing Climate Modeling," The National Academy of Sciences, Engineering and Medicine supports this notion. "Future climate evolution will be impacted by human choices in a number of ways, including future emissions scenarios... land-use changes, agricultural activities, and

¹⁵ National Security Implications of Climate-Related Risks and a Changing Climate, <https://archive.defense.gov/pubs/150724-congressional-report-on-national-implications-of-climate-change.pdf?source=govdelivery>. p 3. (Accessed September 17, 2018.)

¹⁶ Flato, G., J. Marotzke, B. Abiodun, P. Braconnot, S.C. Chou, W. Collins, P. Cox, F. Driouech, S. Emori, V. Eyring, C. Forest, P. Gleckler, E. Guilyardi, C. Jakob, V. Kattsov, C. Reason and M. Rummukainen, "Evaluation of Climate Models" in: *Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*, (Cambridge University Press), p. 824. https://books.google.com/books?hl=en&lr=&id=o4gaBQAAQBAJ&oi=fnd&pg=PR1&dq=Fifth+Assessment+Report+of+the+Intergovernmental+Panel+on+Climate+Change&ots=Wgmx5JExMj&sig=xroAHG_xCP43zbz7ojrkawC hiLg#v=onepage&q=Fifth%20Assessment%20Report%20of%20the%20Intergovernmental%20Panel%20on%20Climate%20Change&f=false.

potentially through deliberate interventions in the climate system...¹⁷ Climate modeling technology can be used to measure the warming influence of human behaviors on Earth's climate. For example, global climate models illustrate the path of future climate change, including variations in temperature, precipitation, and other physical characteristics. The only way to anticipate how these changes in human activity will affect the climate, and, in turn economies and societies, is through the application of climate models.

Decision makers at all levels of the military and public sector must incorporate climate science knowledge to meaningfully address climate change challenges impacting all aspects of our economy and society.

Virginia's Needs for Climate Science

Virginia provides an excellent example of the adverse effects of climate change and the need for the region's business and government leaders to be equipped with climate science knowledge to plan for and manage the changes. Climate change warms ocean water and melts ice on the land surface, resulting in increasing sea level. The sea level is rising most rapidly along the US East Coast, and Norfolk, Virginia is already experiencing "sunny day flooding" – tidal flooding of low-lying areas that occurs irrespective of rain.¹⁸ In the May 2016 *Physics Today* article titled, "Norfolk: A case study in sea-level rise," author David Kramer describes how rising sea level is threatening the low-lying region of Norfolk. Kramer states, "Norfolk, Virginia, is on the front lines of climate change. With the highest rate of sea-level rise on the US East Coast, 4.5 mm per year, it has been ranked by the Organization for Economic Cooperation and Development as the 10th among the world's port cities whose assets are at risk from rising seas."¹⁹

As Virginia's Norfolk region hosts the largest naval operation in the world, understanding the effects of climate change are essential for protecting the region's economic interests as well as the efficacy of the U.S. Navy. In an *Inside Climate News* article investigating climate change's threat to the city of Norfolk, Joe Bouchard, a retired captain and former base commander at Naval Station Norfolk says of the frequent flooding, "It is an impediment to the [Norfolk Naval] base accomplishing its mission."²⁰ Clearly, military operations are impacted by climate change, but the multitude of area businesses feel the effects, as well. NPR's Yuki Noguchi discussed this phenomenon in her 2014 article, "As Sea Levels Rise, Norfolk is Sinking and Planning." "Planning for [rising sea level] is both a national security concern and a topic of discussion among the area's business owners," writes Noguchi.²¹ The city of Norfolk is seeking a

¹⁷ National Academy of Sciences, Engineering and Medicine, *A National Strategy for Advancing Climate Modeling*. (National Academies Press, 2013), p. 99-100, <https://www.nap.edu/read/13430>.

¹⁸ Jonathan Corum, "A Sharp Increase in "Sunny Day Flooding," *New York Times*, September 3, 2016, <https://www.nytimes.com/interactive/2016/09/04/science/global-warming-increases-nuisance-flooding.html>

¹⁹ David Kramer, "Norfolk: A Case Study in Sea-level Rise," *Physics Today*, 69, 5, 22 (May 1, 2016), <https://doi.org/10.1063/PT.3.3163>

²⁰ Nicholas Kusnetz, "Rising Seas Are Flooding Virginia's Naval Base and There is No Plan to Fix It," *Inside Climate News*, October 25, 2017, <https://insideclimatenews.org/news/10252017/military-norfolk-naval-base-flooding-climate-change-sea-level-global-warming-virginia>

²¹ Yuki Noguchi, "As Sea Levels Rise, Norfolk is Sinking and Planning," *National Public Radio*, June 24, 2014, <https://www.npr.org/2014/06/24/324891517/as-sea-levels-rise-norfolk-is-sinking-and-planning>

coordinated response between federal/ local government and business owners to lessen the deleterious effects of regional flooding. Norfolk’s leaders—as well as state, federal, and military leaders—need reliable climate knowledge to make appropriate planning decisions, and that knowledge is in turn dependent on having climate science professionals who know how to use climate models and interpret the data accurately.

The Need for Master’s-Level Preparation in Climate Science

The proposed MS in Climate Science responds to national and Commonwealth needs for professionals with sophisticated abilities to analyze climate data and apply and interpret climate modeling. It addresses two distinct but interrelated needs: (1) training in the specific *area* of climate science (as distinguished from the broader areas of atmospheric and environmental sciences); and (2) training at a suitably sophisticated *level* to meet the needs of government and industry.

First, there are currently very few master’s-level programs focused specifically on climate science; while there are a variety of broader atmospheric and environmental science programs, there are only a few programs nationally that are specifically focused on climate science and its implications, and there are none in Virginia. However, there is a need for training in this specific area. The American Meteorological Society adopted a statement on climate services that says, in part, “Universities, in collaboration with state climate offices, the private sector, and the federal government, should strive to educate a new generation of professionals who are proficient in both science and its societal applications and to collaboratively develop and share research applications of the natural and social sciences to advance [climate services].”²²

Second, training is needed specifically at the master’s level; undergraduate programs in atmospheric science or meteorology don’t provide enough specialized knowledge, and PhD programs provide more knowledge—and in a longer program—than is needed. The proposed program will provide graduates with specific skills for analyzing data and working with weather and climate models that are beyond what undergraduates typically learn. The curriculum also includes scientific topics that are not necessarily included in undergraduate curricula, such as how the atmosphere interacts with other components of the climate system. Undergraduate degrees in atmospheric science, meteorology, or related environmental sciences do not provide the highly specialized knowledge and capabilities that graduates of the proposed program will have, such as advanced statistical inference; analysis of global observations of atmosphere, ocean and cryosphere; employing high-performance computers to integrate complex Earth system models; and how climate models can and cannot be applied to real-world decision-making. Undergraduate students in a typical meteorology or atmospheric science degree program do not have the opportunity to explore the intricacies of climate science at an advanced level. Likewise, they do not develop expertise in working with technical models, running climate models on high-performance computers and interpreting climate model output.

²² American Meteorological Society, “Climate Services: A Policy Statement of the American Meteorological Society,” American Meteorological Society website, September 17, 2015, <https://www.ametsoc.org/ams/index.cfm/about-ams/ams-statements/statements-of-the-ams-in-force/climate-services1/>

A master's degree program is also needed to expand the points of entry into the professional field to those who hold bachelor's degrees in physics, mathematics, astronomy, and other scientific and engineering fields. Their grounding in mathematics and physical science makes them excellent candidates for working on climate problems, but like graduates of undergraduate programs in atmospheric science, they also lack the opportunity to learn how to use the technical models and interpret data. However, the proposed MS in Climate Science would allow them to learn enough atmospheric science and related topics to be able to apply their undergraduate training to climate problems.

The proposed MS in Climate Science would also be a more economically efficient approach to training climate science professionals than a PhD program. MS- and PhD-prepared scientists often may work on the same project, but perform different tasks. Those who hold the MS degree typically carry out the technical work – modifying and running models, extracting and analyzing data, etc. – whereas those who have earned PhDs typically design the experiments or create the projects on which the other project participants are working. The three or more years of extra work it takes to complete a doctoral dissertation is not necessary for many of the technical jobs in climate science, so a master's program such as the proposed MS in Climate Science would allow students to enter the work force at a high technical level sooner and likely with less expense.

At present, there is a gap in the profession at this applied, empirical level of technical training. There is no mechanism in place to resolve this staffing issue, as there are not enough programs offering training at this level of technical understanding. This lack of qualified climate science professionals will remain or worsen if we do not initiate this program.

The proposed MS in Climate Science degree occupies a level of expertise and technical preparation currently underrepresented in university programs. The proposed MS in Climate Science would provide graduates the skills necessary to work with climate models in a variety of settings, include a national laboratory, independent research lab or commercial consultancy. It will also allow them to take technical data, such as output from a climate model projection, and use it to provide information to experts in other fields, such as water management or agriculture.

See Appendix D for letters of support for specific demand.

Employment Demand

Employment demand is evidenced by 1) analysis of federal and Virginia employment projections 2) a sampling of advertisements for jobs requiring advanced training in climate science and 3) letters of demand from potential employers.

Employment projections in the Bureau of Labor Statistics' (BLS) Occupational Outlook Handbook show the achievability of employment for graduates of the proposed MS in Climate Science. According to the BLS, employment prospects for atmospheric scientists (including

meteorologists) is expected to grow 12% from 2016-2026, which is “faster than average” growth for all occupations.²³

According to the Virginia Employment Commission (VEC), employment growth from 2016-2026 is projected at 18.02%, with an annual projected growth of 1.67%.²⁴

See Appendix E for job advertisements.

See Appendix F for letters of support for employment demand.

Student Demand

Student demand is evidenced by 1) a survey administered to undergraduate students in the Department of Atmospheric, Oceanic, and Earth Sciences and 2) inquiries from prospective students.

A student interest survey regarding the proposed MS in Climate Science degree program was administered to students in undergraduate courses in the Department of Atmospheric, Oceanic, and Earth Sciences during the period of March 28 - April 3, 2018. The surveyed courses included:

- Introductory science courses containing primarily freshman and sophomores across a range of majors.
- Advanced courses containing primarily sophomores and juniors majoring in Science, Technology, Engineering, and Mathematics (STEM) disciplines.

Seventy (70) students completed the survey. The major with the largest number of students surveyed is Atmospheric Sciences. The following results were compiled:

Summary of student demand for M.S. Climate Science

- Twenty-four (24) students indicated they are “Definitely Interested,” “Very Interested,” or “Interested” in enrolling in this program.
- Of those students who indicated a preference in concentration, 22 selected “Climate Data Science” and 27 selected “Climate Dynamics.”

Original survey is available in Appendix F. Results are included as a separate document behind the survey.

Letters of student support are available in Appendix G.

²³ Bureau of Labor Statistics, U.S. Department of Labor, “Atmospheric Scientists, Including Meteorologists,” *Occupational Outlook Handbook*. Retrieved on September 13, 2018 from <https://www.bls.gov/ooh/life-physical-and-social-science/atmospheric-scientists-including-meteorologists.htm>

²⁴ Virginia Employment Commission, Industry and Occupational Projections. *Occupational Projections (Long-term) for Multiple Occupations in Virginia in 2016-2026. Occupational Predictions Table*. Retrieved on September 13, 2018 from: <https://data.virginialmi.com/vosnet/analyzer/results.aspx?session=occproj>

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
SUMMARY OF PROJECTED ENROLLMENTS IN PROPOSED PROGRAM

Projected enrollment:

Year 1		Year 2		Year 3		Year 4 Target Year (2-year institutions)			Year 5 Target Year (4-year institutions)		
2019 - 2020		2020 - 2021		2021 - 2022		2022 - 2023			2023 - 2024		
HDCT	FTES	HDCT	FTES	HDCT	FTES	HDCT	FTES	GRAD	HDCT	FTES	GRAD
<u>15</u>	<u>8</u>	<u>38</u>	<u>20</u>	<u>54</u>	<u>28</u>	<u>59</u>	<u>31</u>	_____	<u>59</u>	<u>31</u>	<u>22</u>

Assumptions:

Retention percentage: 85%

Percentage of full-time students: 40% Percentage of part-time students: 60%

Full-time students credit hours per semester: 9

Part-time students credit hours per semester: 4.5

Full-time students graduate in 2 years

Part-time students graduate in 5 years

Duplication

The proposed MS in Climate Science at George Mason University would be the first master’s degree in the Commonwealth of Virginia to focus specifically on climate issues.

One public institution in the Commonwealth offers a related degree program. Old Dominion University (ODU) offers a MS in Ocean and Earth Sciences (40.0607) related to the proposed program.

ODU’s MS in Ocean and Earth Sciences program requires a minimum of 30 credit hours. ODU’s program is focused on the four traditional sub-disciplines of oceanography, including physical oceanography, chemical oceanography, biological oceanography and geological sciences. The program has a thesis and non-thesis option.

Similarities

ODU’s program has one similarity to the proposed program. The core components of both programs include a course on physical oceanography which covers oceanic salinity, temperature distribution and circulation.

Differences

ODU's program is focused on oceanography and is therefore substantially different from the proposed program. ODU's 13-credit core component focuses on the four sub-disciplines of oceanography and thus requires courses in chemical oceanography (3 credits); geological sciences (3 credits) and biological oceanography (4 credits). In contrast, the proposed program is centered on climate science. George Mason's core focuses on the fundamental issues underlying climate behavior—the interrelationships between land surfaces, water and weather; atmospheric dynamics; and global warming. In addition, the proposed program requires three semesters of a 1-credit seminar course for exposure to current climate science research topics, whereas ODU does not require any coursework centered on contemporary inquiry. ODU offers both a thesis and a non-thesis option.

For its restricted elective component, ODU's program requires 17 credits that must be approved by the student's guidance committee but that not need to be focused on any one sub-discipline. In contrast, George Mason's proposed program requires the selection of one of two 6-credit climate-specific concentrations: Climate Modeling or Climate Data, and an additional six credits of restricted electives. The Climate Modeling concentration allows students to further explore the dynamics of climate simulations. The Climate Data concentration allows students to further develop proficiency in process, analyzing and applying climate data.

In addition, ODU requires each student to have at least ten days of shipboard experience, fieldwork, or a combination of the two. George Mason's proposed program does not require fieldwork of any kind.

George Mason's proposed MS in Climate Science is unique to the Commonwealth of Virginia in that it would train professionals specifically to perform climate data analysis and climate modeling.

Enrollments²⁵	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Old Dominion University	24	20	23	27	25
Degrees Awarded²⁶	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018
Old Dominion University	6	12	1	8	6

²⁵ State Council of Higher Education for Virginia (SCHEV). *Fall Headcount Enrollment by Race/Ethnicity, Gender and Program Detail*. http://research.schev.edu/enrollment/E16_Report.asp. (Accessed May 18, 2018)

²⁶ State Council of Higher Education for Virginia (SCHEV). *Completion, Program Detail C1.2*. http://research.schev.edu/Completions/C1Level2_Report.asp. (Accessed September 13, 2018)

Projected Resource Needs for the Proposed Program

Resource Needs

George Mason University and the Department of Atmospheric, Oceanic and Earth Sciences have the resources needed to initiate and sustain the proposed MS degree program in Climate Science. The department will have the faculty, staff, equipment, space and library resources to launch and maintain the proposed program. The department will have two full-time faculty members committed to the program. The proposed program allocates 1.00 FTE of instructional effort for every 8.00 FTE of enrollment. The proposed program will therefore require a total of 1.00 FTE of instructional effort in 2019-20, rising to 4.00 FTE by the target year 2023-24.

Full-time Faculty

Two faculty in the Department of Atmospheric, Oceanic and Earth Sciences will dedicate 50% or more of their teaching load to the proposed degree program. The department's graduate program director, who is a member of the faculty, will teach in the program and will also serve as program director. The proposed program will require 0.5 of full-time FTE in the initiation year, rising to 1.00 in the target year 2023-24.

Part-time Faculty

Six faculty from the Department of Atmospheric, Oceanic and Earth Sciences will teach in the proposed program. The proposed program will require 0.5 part-time FTE in 2019-20, rising to 1.8 by 2023-24. By the target year, faculty from the departments of Biology, Communication, Computational and Data Sciences, Environmental Science and Policy, Geography and Geoinformation Science, Information Sciences and Technology, and Physics will also teach in the program, thus another 0.7 FTE will be designated by 2023-24.

Adjunct Faculty

No adjunct faculty are required to launch or maintain the proposed program.

Graduate Assistants

No graduate assistants are required to launch or maintain the proposed program.

Classified Positions

The faculty graduate program director currently employed by the Department of Atmospheric, Oceanic and Earth Sciences will oversee the proposed program. The proposed program will require 0.25 FTE to launch and this level of effort will remain constant through the target year of 2023-24. Salary for the program director is \$22,500 with fringe benefits of \$9,475.

An administrative assistant currently employed by the Department of Atmospheric, Oceanic and Earth Sciences will support the proposed program. The proposed program will require 0.20 FTE to launch and this level of effort will remain constant through the target year of 2023-24. Salary for the administrative assistant is \$7,600 with fringe benefits of \$3,200.

Targeted Financial Aid

No targeted financial aid will be available or is needed to launch or maintain the proposed program.

Equipment (including computers)

No new equipment (including computers) is required to launch or maintain the proposed program.

Library

New master's programs are allocated \$3,000 for library materials by the University Libraries. The library has an adequate collection to support the proposed degree program. Resources include journals and publications for atmospheric science and related physical sciences. As a member of the Virtual Library of Virginia (VIVA), on-line access to journals is also available.

Telecommunications

The proposed program requires no new telecommunications to launch or maintain the proposed program.

Space

The proposed program will not require additional space to launch or maintain the proposed program.

Other Resources (specify)

The university will allocate \$1,000 for marketing and promotional materials for the proposed program.

RESOURCE NEEDS

Part A: Answer the following questions about general budget information.

- Has the institution submitted or will it submit an addendum budget request to cover one-time costs? Yes No
- Has the institution submitted or will it submit an addendum budget request to cover operating costs? Yes No
- Will there be any operating budget requests for this program that would exceed normal operating budget guidelines (for example, unusual faculty mix, faculty salaries, or resources)? Yes No
- Will each type of space for the proposed program be within projected guidelines? Yes No
- Will a capital outlay request in support of this program be forthcoming? Yes No

Part B: Fill in the number of FTE and other positions needed for the program

	Program Initiation Year 2019- 2020		Expected by Target Enrollment Year 2023- 2024	
	On-going and reallocated	Added (New)	Added (New)***	Total FTE positions
Full-time faculty FTE*	0.50	0.00	0.50	1.00
Part-time faculty FTE**	0.50	0.00	2.50	3.00
Adjunct faculty	0.00	0.00	0.00	0.00
Graduate assistants (HDCT)	0.00	0.00	0.00	0.00
Classified positions	0.45	0.00	0.00	0.45
TOTAL	1.45	0.00	3.00	4.45

* Faculty dedicated to the program. **Faculty effort can be in the department or split with another unit. *** Added **after** initiation year and up through target enrollment year.

Part C: Estimated resources to initiate and operate the program

	Program Initiation Year		Expected by Target Enrollment Year	
	2019-	2020	2023-	2024
Full-time faculty	0.50	0.00	0.50	1.00
salaries	\$45,000		\$45,000	\$90,000
fringe benefits	\$13,811		\$13,811	\$27,622
Part-time faculty (faculty FTE split with unit(s))	0.50	0.00	2.50	3.00
salaries	\$45,000		\$225,000	\$270,000
fringe benefits	\$13,811		\$69,053	\$82,864
Adjunct faculty	0.00	0.00	0.00	0.00
salaries				\$0
fringe benefits				\$0
Graduate assistants	0.00	0.00	0.00	0.00
salaries				\$0
fringe benefits				\$0
Classified Positions	0.45	0.00	0.00	0.45
salaries	\$30,100			\$30,100
fringe benefits	\$12,675			\$12,675

Personnel cost				
salaries	\$120,100	\$0	\$270,000	\$390,100
fringe benefits	\$40,297	\$0	\$82,864	\$123,161
Total personnel cost	\$160,397	\$0	\$352,864	\$513,261
Equipment				\$0
Library	\$3,000			\$3,000
Telecommunication costs				\$0
Other costs	\$1,000			\$1,000
TOTAL	\$164,397	\$0	\$352,864	\$517,261

Part D: Certification Statement(s)

The institution will require additional state funding to initiate and sustain this program.

Yes _____
Signature of Chief Academic Officer

No _____
Signature of Chief Academic Officer

Please complete Items 1, 2, and 3 below.

1. Estimated \$\$ and funding source to initiate and operate the program.

Funding Source	Program initiation year 2019 - 2020	Target enrollment year 2023 - 2024
Reallocation within the department <i>(Note below the impact this will have within the department.)</i>	\$161,396	\$506,027
Reallocation within the school or college <i>(Note below the impact this will have within the school or college.)</i>	None	\$4704
Reallocation within the institution <i>(Note below the impact this will have within the institution.)</i>	\$3,000	\$6,528
Other funding sources <i>(Specify and note if these are currently available or anticipated.)</i>	None	None

2. Statement of Impact/Funding Source(s). A separate detailed explanation of funding is required for each source used and a statement of impact on existing resources.

Reallocation within the department

The Department of Atmospheric, Oceanic and Earth Sciences will reallocate resources to support the proposed program. Faculty teaching loads will be reallocated to support the proposed program. The costs for classified support (\$42,775) will be accommodated through reallocation of existing resources. It is estimated that \$161,397 will be needed to support the proposed program. The reallocation of resources will have minimal impact on academic programs in the department or the departmental resources.

Reallocation within the school or college

Faculty members from the Departments of Biology, Computational and Data Sciences, Environmental Science and Policy, and Geography and Geoinformation Science will teach restricted elective courses in the proposed program. Faculty who teach courses in these areas will have additional students in their courses as a result of the proposed MS in Climate Science degree program. No adverse impact is anticipated as a result of these additional students in those classes.

Reallocation within the institution

Faculty members from the Departments of Communication, Information Sciences and Technology, and Physics will teach restricted elective courses in the proposed program. Faculty who teach courses in these areas will have additional students in their courses as a result of the proposed MS in Climate Science degree program. No adverse impact is anticipated as a result of these additional students in those classes.

The additional support (\$3,000) for a program-relevant collection from the University Libraries will be accommodated through an allocation of resources. The University provides funding from resources designated for new graduate-level degree programs.

3. Secondary Certification.

If resources are reallocated from another unit to support this proposal, the institution will **not** subsequently request additional state funding to restore those resources for their original purpose.

Agree _____
Signature of Chief Academic Officer

Disagree _____
Signature of Chief Academic Officer

Appendices

Appendix A – Sample Plans of Study

Sample Plan of Study – Climate Modeling Concentration (FULL-TIME)			
Fall Year 1		Spring Year 1	
CLIM 511	Atmospheric Dynamics (3 cr)	CLIM 610	Intro to Physical Climate System (3 cr)
CLIM 512	Physical Oceanography (3 cr)	CLIM 614	Land-Climate Interactions (3 cr)
	Elective (3 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
<i>9 credits</i>		<i>7 credits</i>	
Fall Year 2		Spring Year 2	
CLIM 670	Earth System Modeling (3 cr)	CLIM 690	Scientific Basis Climate Change (3 cr)
	Concentration Elective (3 cr)		Elective (3 cr)
CLIM 991	Climate Dynamics Seminar (1 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
<i>7 credits</i>		<i>7 credits</i>	

Total Credits: 30

Sample Plan of Study – Climate Data Concentration (FULL-TIME)			
Fall Year 1		Spring Year 1	
CLIM 511	Atmospheric Dynamics (3 cr)	CLIM 610	Intro to Physical Climate System (3 cr)
CLIM 512	Physical Oceanography (3 cr)	CLIM 614	Land-Climate Interactions (3 cr)
CLIM 680	Climate Data (3 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
<i>9 credits</i>		<i>7 credits</i>	
Fall Year 2		Spring Year 2	
	Concentration Elective (3 cr)	CLIM 690	Scientific Basis Climate Change (3 cr)
	Elective (3 cr)		Elective (3 cr)
CLIM 991	Climate Dynamics Seminar (1 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
<i>7 credits</i>		<i>7 credits</i>	

Total Credits: 30

Sample Plan of Study – Climate Modeling Concentration (PART-TIME)			
Fall Year 1		Spring Year 1	
CLIM 511	Atmospheric Dynamics (3 cr)	CLIM 610	Intro to Physical Climate System (3 cr)
CLIM 512	Physical Oceanography (3 cr)		
	<i>6 credits</i>		<i>3 credits</i>
Fall Year 2		Spring Year 2	
	Elective (3 cr)	CLIM 614	Land-Climate Interactions (3 cr)
CLIM 991	Climate Dynamics Seminar (1 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
	<i>4 credits</i>		<i>4 credits</i>
Fall Year 3		Spring Year 3	
CLIM 970	Earth System Modeling (3 cr)	CLIM 690	Scientific Basis Climate Change (3 cr)
		CLIM 991	Climate Dynamics Seminar (1 cr)
	<i>3 credits</i>		<i>4 credits</i>
Fall Year 4		Spring Year 4	
	Concentration Elective (3 cr)		Elective (3 cr)
	<i>3 credits</i>		<i>3 credits</i>

Total Credits: 30

Sample Plan of Study – Climate Data Concentration (PART-TIME)

Fall Year 1		Spring Year 1	
CLIM 511	Atmospheric Dynamics (3 cr)	CLIM 610	Intro to Physical Climate System (3 cr)
CLIM 512	Physical Oceanography (3 cr)		
	<i>6 credits</i>		<i>3 credits</i>
Fall Year 2		Spring Year 2	
CLIM 680	Climate Data (3 cr)	CLIM 614	Land-Climate Interactions (3 cr)
CLIM 991	Climate Dynamics Seminar (1 cr)	CLIM 991	Climate Dynamics Seminar (1 cr)
	<i>4 credits</i>		<i>4 credits</i>
Fall Year 3		Spring Year 3	
	Math/Comp/GIS elective (3 cr)	CLIM 690	Scientific Basis Climate Change (3 cr)
		CLIM 991	Climate Dynamics Seminar (1 cr)
	<i>3 credits</i>		<i>4 credits</i>
Fall Year 4		Spring Year 4	
	Elective (3 cr)		Elective (3 cr)
	<i>3 credits</i>		<i>3 credits</i>

Total Credits: 30

Appendix B – Course Descriptions

New courses are marked with an asterisk.

Core Courses:

CLIM 511: *Atmospheric Dynamics* (3 credits)

Observational bases and fundamentals of fluid dynamic principles for understanding atmospheric motions across multiple spatial and temporal scales; covers basic conservation laws of mass, momentum, and energy; concepts of circulation and vorticity; balanced atmospheric flows, e.g. geostrophic wind and shear, thermal wind; quasi-geostrophic and isentropic potential vorticity analysis for mid-latitude cyclones and fronts.

CLIM 512: *Physical Oceanography* (3 credits)

Course describes the global patterns of temperature, salinity, currents and waves in the world's oceans, and how these patterns influence marine biota, climate, and human activity. Course introduces key concepts which explain physical feature of the ocean ranging from microscopic turbulence to global circulation.

CLIM 610: *Introduction to Physical Climate System* (3 credits)

Provides modern understanding of ocean, atmosphere, and land based on fundamental physical laws. Describes current climate and physical processes by which climate is maintained. Covers theoretical models of general circulation of atmosphere, including time mean and transient behavior. Describes basics of ocean circulation and interactions between ocean and atmosphere. Reviews past climate change, stratosphere and its interactions with troposphere, and role of land processes in modulating climate.

CLIM 614: *Land-Climate Interactions* (3 credits)

Interdisciplinary course providing detailed description of surface energy and water balance over land and radiative and turbulent transfer. Introduces numerical techniques for modeling land surface and applications in weather, climate, and hydrologic forecasting and simulation. Includes hands-on experience with land surface models in computer laboratory, including sensitivity experiments to reinforce theoretical concepts. Exposure to contemporary research through reading and reviewing seminal journal papers.

CLIM 690: *Scientific Basis of Climate Change* (3 credits)

A rigorous treatment of global warming, especially with regard to anthropogenic causes, based on the IPCC 4th Assessment Report "The Physical Science Basis". Topics include 1) Overview of observed climate, 2) Variability of climate, 3) Modeling of climate response to greenhouse gas forcing, 4) Greenhouse gases, chemistry, and aerosols, and 5) Projections of climate change and its societal impact.

CLIM 991: *Climate Dynamics Seminar* (1 credit)

Presentations in climate dynamics field by Mason faculty and invited speakers.

Climate Modeling Concentration Course:

CLIM 670: *Earth System Modeling* (3 credits)

An Earth system model is composed of models simulating the evolution of the atmosphere, ocean, cryosphere, biosphere, and other components. Course introduces the component models, their interactions, and how they are used to predict the behavior of weather and climate on time scales that range from hours to centuries. Students will learn technical and scientific skills necessary to run an Earth system model and evaluate its output.

Climate Data Concentration Course:

CLIM 680: *Climate Data* (3 credits)

How to process, analyze, and interpret environmental data for climate and related disciplines. Familiarizes students with software commonly used in atmospheric research and with techniques for working with large quantities of data. Examines mathematical tools for characterizing global physical data sets which vary in time and space, and applies the tools to observations and numerical model output.

Restricted Elective Courses – Climate Science:

CLIM 713: *Atmosphere-Ocean Interactions* (3 credits)

Provides comprehensive observational and mechanistic understanding of El Nino and Southern Oscillation (ENSO) phenomena. Topics include observations and theories of seasonal and interannual changes in ocean circulation and temperature and interactions with atmosphere; equations of motion and theories of wind-driven circulation; mixed layer observations and theories; midlatitude and equatorial ocean waves; interannual variability and atmosphere-ocean coupling; and tropical oceanography and meteorology.

CLIM 750: *Geophysical Fluid Dynamics* (3 credits)

Introduces geophysical fluid dynamics, the study of rotating stratified flows. Covers hydrostatics; equations of motion, gravity wave dynamics, and stratified flow; effects of rotation, midlatitude dynamics, Rossby number and quasigeostrophic expansion; beta plane approximation; and equatorial Kelvin and Rossby waves.

CLIM 751: *Predictability and Prediction of Weather and Climate* (3 credits)

Covers predictability and seamless prediction of weather and climate for timescales ranging from days to decades. Studies limitations to predictability due to chaos, and possible sources of predictability due to slowly varying surface boundary conditions produced by interactions among atmospheres, ocean and land system. Discusses predictability of droughts and floods, monsoons, ENSO, decadal variations and climate change.

CLIM 752: *Ocean General Circulation* (3 credits)

Description and theory of large-scale ocean circulation and how it affects climate. Focus is on ubiquitous flow structures such as gyres, equatorial currents, and meridional overturning cells. Examines how the circulation follows from wind and thermohaline forcing, as well as physical

principles. The influence of the circulation on heat transport and climate variability is also discussed. Conceptual guideposts include barotropic gyres, Ekman cells, potential vorticity, western intensification, the interplay of gravity and the Earth's rotation, advective-diffusive balance, multiple flow states, and Rossby waves.

CLIM 753: General Circulation of the Atmosphere (3 credits)

Overview and several theoretical perspectives of atmospheric transport of energy, moisture, and angular momentum, and how these processes fundamentally affect the climate on various time scales.

CLIM 754: Elements of the Tropical Climate System (3 credits)

Observations and dynamics of key processes of tropical weather and climate. Topics include: structure of the tropical atmosphere and ocean, convection, dynamics of tropical waves in the atmosphere and ocean, tropical intraseasonal variability, tropical the global monsoons, cyclones, and stratospheric quasi-biennial oscillation.

GEOL 532: Paleoclimatology (3 credits)

Explores the natural evolution of Earth's climate with the goal of providing a baseline for understanding present climate variability and future trends through increase knowledge of the physical, chemical, and biological processes that influence climate over the long-term.

GEOL 535: Quantitative Stratigraphy (3 credits)

Quantitative stratigraphy is a branch of geology that applies statistics to reconstruct the time sequence of geological events recorded in sedimentary strata. Methods of interpolation and error analysis used for defining stratigraphic boundaries and events, time scale estimation using integrated chronostratigraphy, and intercalibration are examined. Students receive advanced training in graphic correlation, constrained optimization, ranking and scaling, and dynamic programming.

GEOL 565: Paleoceanography (3 credits)

Investigates ocean evolution through geologic time. Earth's sediment archive provides proxy data on paleo-ocean chemistry, biology, geology, and physical properties. Class examines proxy reconstructions of oceanic conditions such as circulation, salinity, stratification, anoxia, and biogeochemistry. Discusses the history of ocean basins, with case studies from Precambrian to Holocene.

GGG 670: Introduction to Atmosphere and Weather (3 credits)

Applies climatic concepts to natural and human-modified environments, and analyzes climatic change.

Restricted Elective Courses – Mathematics, Computational Science and Geographic Information:

CDS 501: Scientific Information and Data Visualization (3 credits)

Techniques and software used to visualize scientific simulations, complex information, and data visualization for knowledge discovery. Includes examples and exercises to help students develop

their understanding of the role visualization plays in computational science and provides a foundation for applications in their careers.

CLIM 715: Numerical Methods for Climate Modeling (3 credits)

Foundation and theory of computational methods for atmosphere and ocean modeling, with special emphasis on finite-difference and spectral methods. Topics include accuracy, consistency, convergence and stability; time stepping schemes; nonlinear computational stability; energy and enstrophy conserving schemes for momentum equations; staggered and curvilinear grids; alternate vertical coordinate systems; implicit and split-explicit barotropic mode solution; pressure gradient errors and vorticity constraints; spectral methods for atmospheric models; and treatment of model physics.

CLIM 762: Statistical Methods in Climate Research (3 credits)

Introduction to a core set of statistical methods that have proven useful to modern climate and predictability research. Topics include detecting and attributing climate change, describing climate variability with empirical orthogonal functions, statistical forecasting with regression and time series models, and identifying coupled patterns of variability with canonical correlation analysis.

CLIM 763: Advanced Statistical Methods in Climate Research (3 credits)

Introduction to multivariate statistical techniques commonly used in climate science, with special emphasis on estimation in large dimensional spaces. Topics include: multivariate regression, canonical correlation analysis, predictable component analysis, field significance tests, data assimilation (especially the ensemble Kalman Filter), discriminant analysis, and multivariate detection and attribution of climate change.

CSI 501: Introduction to Scientific Programming (3 credits)

Introduces and reviews programming in C and FORTRAN with emphasis on the aspects used in the computational and data sciences. Conducted through a combination of both lecture and interactive computer laboratory.

CSI 690: Numerical Methods (3 credits)

Covers computational techniques for solving science, engineering problems. Develops algorithms to treat typical problems in applications, emphasizing types of data encountered in practice. Covers theoretical development as well as implementation, efficiency, and accuracy issues in using algorithms and interpreting results. When applicable, uses computer graphical techniques to enhance interpretation.

PHYS 510: Computational Physics I (3 credits)

Study and development leading to computer simulations of various physical systems. Requires the study and development of computational techniques and numerical algorithms to obtain both numerical results and visualization of these results. Application to individual physical processes taking place in a variety of physical systems.

GEOL 525: Modeling Earth Signals and Systems (3 credits)

Provides instruction on time series analysis customized for Earth signals and systems such as climate, Earth-space orientation, earthquakes, geomagnetism, river flow, tides and many other time-dependent phenomena. Concepts including linear systems, filtering, spectrum estimation, harmonic analysis and hypothesis testing are applied to time series data sampled from natural processes to address a variety of scientific problems.

GEOL 553: Field Mapping Techniques (3 credits)

Explores basic techniques for collecting, recording, and plotting spatial field data, including topographic maps, compass, transit, alidade, and global positioning systems. Field work and field based research project.

GGS 553: Geographic Information Systems (3 credits)

Sources of digital geospatial data; and methods of input, storage, display, and processing of spatial data for geographic analysis using GIS. Lectures, hands-on exercises familiarize students with current technology.

GGS 563: Advanced Geographic Information Systems (3 credits)

Discusses advanced GIS concepts including spatial data structure, spatial analysis, programming data fusion, Internet components, and spatial database management. Hands-on activities demonstrate concepts and specific applications in both cultural and physical geography.

GGS 650: Introduction to GIS Algorithms and Programming (3 credits)

Introduction to programming methods and their application to Geographic Information Systems, including the fundamentals of object-oriented programming and GIS-specific data structures and algorithms. Employs an object-oriented language such as Visual Basic.Net, and existing freeware and commercial GIS libraries. Topics covered include variables, arrays, control structures, objects and classes, raster and vector data structures, spatial algorithms, and spatial indexing methods.

Restricted Elective Courses – Climate-Relevant Topics:

AIT 580: Analytics: Big Data to Information (3 credits)

Course provides an overview of Big Data and its use in commercial, scientific, governmental and other applications. Topics include technical and non-technical disciplines required to collect, process and use enormous amounts of data available from numerous sources. Lectures cover system acquisition, law and policy, and ethical issues. It includes brief discussions of technologies involved in collecting, mining, analyzing and using results.

AIT 582: Applications of Metadata in Complex Big Data Problems (3 credits)

Course explores technical and analytical issues, solutions and gaps in processing large volumes of data by leveraging metadata. The goal is to find "facts of interest" (Intelligence) that represent threats to, or even opportunities for, a given industry or domain (e.g., healthcare, finance or national intelligence/national defense) where there is limited time.

BIOL 650: Environment Analysis and Modeling (4 credits)

Introduces principles, history and methodologies of systems ecology, emphasizing development and simulation of ecological models for natural resource/ecosystem management, conceptual and symbolic models, and simulation techniques on microcomputers.

CDS 502: Introduction to Scientific Data and Databases (3 credits)

Data and databases used by scientists. Includes basics about database organization, queries, and distributed data systems. Student exercises will include queries of existing systems, along with basic design of database systems. Examples from different disciplines will be given.

COMM 660: Climate Change and Sustainability Communication Campaigns (3 credits)

Offers practical application, skill development, and theoretical basis of communication campaigns developed in response to global warming and other threats to sustainability. Focuses on purposive campaigns to promote changes in individual behavior and public policy.

CS 504: Principles of Data Management and Mining (3 credits)

Techniques to store, manage, and use data including databases, relational model, schemas, queries and transactions. On Line Transaction Processing, Data Warehousing, star schema, On Line Analytical Processing, MOLAP, HOLAP, and hybrid systems. Overview of Data Mining principles, models, supervised and unsupervised learning, pattern finding. Massively parallel architectures and Hadoop.

CSI 600: Quantitative Foundations for Computational Sciences (3 credits)

Accelerated review of mathematical tools for scientific applications and analysis. Topics include vectors and matrices; differential and difference equations; linear systems; Fourier, Laplace, and Z-transforms; and probability theory.

CSI 662: Introduction to Space Weather (3 credits)

Introduction to space weather involving systems such as the sun, the heliosphere, and the Earth's magnetosphere and ionosphere. Covers the solar magnetic field, solar flares, coronal mass ejections, particle acceleration mechanisms, the solar wind, and the Earth's magnetic field, radiation belt, geomagnetic storms, and ionospheric disturbances.

GEOL 506: Soil Science (3 credits)

Explores the composition, classification, physical properties, and origin of soils.

GEOL 513: Hydrogeology (3 credits)

Geological and hydrologic factors controlling occurrence, distribution, movement, quality, and development of groundwater.

GEOL 563: Coastal Morphology and Processes (4 credits)

Investigates global coastal geomorphology and processes, with emphasis on U.S. Atlantic and Gulf coasts. Topics include plate tectonics; sea-level changes; sediment supply; impacts of waves, tides, storms; and human activities. Lecture and extended weekend field trips to U.S. mid-Atlantic coast.

GGG 507: Sustainable Development (3 credits)

Sustainability lies at the intersection of the environment, society and economics. This course explores the concepts, applications, and tools for analysis and decision making in support of environmentally sustainable, socially responsible and economically prosperous development. Case studies and problem-solving exercises will stimulate learning and provide practical experience in addressing sustainable development issues.

GGG 531: Land-Use Modeling Techniques and Applications (3 credits)

Survey of literature on spatially explicit empirical models of land-use change. Hands-on experience developing and running simple models. Techniques covered include statistical models, mathematical programming models, cellular automata, agent-based models, and integrated models.

GGG 550: Geospatial Science Fundamentals (3 credits)

Introduces geospatial sciences, emphasizing concepts and theories of cartography, remote sensing, air photo interpretation, Global Positioning Systems, spatial data structures, and geographic information systems. Lectures accompanied by hands-on exercises.

GGG 579: Remote Sensing (3 credits)

Examines use of various types and combinations of electromagnetic energy to obtain spatial information. Concentrates on nonphotographic and spaceborne remote sensing platforms and sensors. Examines essential operational parameters for existing and future systems and strategies for visual extraction of features.

GGG 656: The Hydrosphere (3 credits)

Covers components and transfer processes in hydrosphere, which consists of aqueous envelope of Earth including oceans, lakes, rivers, snow, ice, glaciers, soil moisture, ground water, and atmospheric water vapor.

EVPP 506: Science of the Environment I (3 credits)

Environmental science is explored in this 2-semester sequence providing the foundation in chemistry (I) and biology (II) required for graduate students with social sciences backgrounds seeking a degree and career in environmental science and policy.

EVPP 507: Science of the Environment II (3 credits)

Environmental science is explored in this 2-semester sequence providing the foundation in chemistry (I) and biology (II) required for graduate students with social sciences backgrounds seeking a degree and career in environmental science and policy.

EVPP 529: Environmental Science Communication (3 credits)

Communicating environmental science is inherently challenging whether in academia, the public policy realm, or to the general public. The aim of this course is to expose students to the multiple ways environmental science can be communicated. Such exposure will be made both through a theoretical approach by examining science communication literature, as well as through practical, hands-on activities and assignments.

EVPP 542: *Urban Ecosystems & Processes* (4 credits)

Provides an overview of the challenges and opportunities that urban environments present to the plants and animals inhabiting cities and the ways that those organisms and entire ecosystems respond. Includes ecosystem ecology for engineered ecosystems, along with reviews of urban metabolism, energy budgets, water cycles, and soil ecology. Students design and conduct a small-scale green infrastructure experiment/project on campus.

EVPP 543: *Tropical Ecosystems* (4 credits)

Terrestrial, aquatic, and marine ecosystems in the tropics, emphasizing plant communities, plant-animal interactions, and role of humans in tropics.

EVPP 550: *Waterscape Ecology and Management* (3 credits)

Studies physical, chemical, and biological components of freshwater ecosystems with emphasis on streams, rivers, and lakes; links between watersheds and freshwater ecosystems; and impact of human management.

EVPP 607: *Fundamentals of Ecology* (3 credits)

Overview of concepts in physiological, population, community, ecosystem, biogeographical and human ecology.

EVPP 637: *Human Dimensions of Climate Change* (3 credits)

Examines human dimensions of climate change, biodiversity loss, ozone depletion, and related anthropogenic alterations of biosphere.

Appendix C – Abbreviated Faculty Curriculum Vitae

Core Faculty

Natalie J. Burls, PhD in Physical Oceanography, 2010, University of Cape Town, Assistant Professor, Specialization Area: Climate Dynamics and Paleoclimate

Paul Dirmeyer, PhD in Meteorology, 1992, University of Maryland, Professor, Specialization Area: Land Climate Interactions

Bohua Huang, PhD in Meteorology, 1992, University of Maryland, Professor, Specialization Area: Physical Oceanography

James L. Kinter, III, PhD in Geophysical Fluid Dynamics, 1984, Princeton University, Professor, Specialization Area: Climate Dynamics and Climate Change

Barry A. Klinger, PhD in Physical Oceanography, 1992, MIT-Woods Hole Oceanography Institution, Associate Professor, Specialization Area: Physical and Dynamical Oceanography

Kathy Pegion, PhD in Climate Dynamics, 2007, George Mason University, Assistant Professor, Specialization Area: Climate Data Analysis and Modelling

Jagadish Shukla, ScD in Meteorology, 1976, Massachusetts Institute of Technology, Distinguished University Professor, Specialization Area: Climate Dynamics and Climate Change

Cristiana Stan, PhD in Atmospheric Science, 2005, Colorado State University, Specialization Area: Atmospheric Dynamics and Modelling

David M. Straus, PhD in Physics, 1977, Cornell University, Professor, Specialization Area: Atmospheric Dynamics

ITEM NUMBER:

Doctor of Philosophy (PhD), Business

PURPOSE OF THE ITEM:

A proposal to establish a new Doctor of Philosophy (PhD) in Business has been prepared for submission to the State Council of Higher Education for Virginia (SCHEV). Prior to SCHEV submission, Board action is required.

APPROPRIATE COMMITTEE:

Academic Programs, Diversity, and University Community Committee

BRIEF NARRATIVE:

The School of Business requests permission to establish a new research degree.

The purpose of the proposed degree is to produce new college and university business faculty. The proposed program will prepare graduates to create new knowledge in business, to apply that knowledge in service to businesses and organizations, and how to teach others to apply that knowledge themselves. The program will also provide graduates with advanced knowledge in one of four concentration areas: 1) Organizational Behavior; 2) Strategic Management; 3) Information Systems; and 4) Operations Management. Graduates will be prepared to work in any kind of higher education institution, from community colleges to research universities.

Both Virginia and the rest of the nation are experiencing a growth in demand for business educators. The increasing demand for business education is partly a result of a growth in population; Virginia has also experienced economic growth. Combined, these factors have increased Virginia's demand for people who are educated at the bachelor's and master's levels in education, which in turn has increased Virginia's demand for people who can teach those programs. Virginia's current production of PhDs in business fields is insufficient to meet this growing demand. Graduates from this program would help to address that shortage and meet Virginia's expanding need for business education.

REVENUE IMPLICATIONS:

The PhD in Business is a long-term investment for the School of Business. Because each doctoral student will be funded (as is standard in the field, and necessary for George Mason to be competitive), the program will not generate net revenue. However, the presence of doctoral students in the School of Business will enable faculty to generate additional research, supporting the university's status as a Carnegie R1 institution, and a PhD program will increase the overall academic reputation of the School of Business. The School of Business has allocated sufficient resources to support this program.

STAFF RECOMMENDATION:

Staff recommends approval of the proposed program.

**STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
PROGRAM PROPOSAL COVER SHEET**

1. Institution George Mason University	2. Academic Program (Check one): New program proposal <input checked="" type="checkbox"/> Spin-off proposal <input type="checkbox"/> Certificate document <input type="checkbox"/>
3. Name/title of proposed program Business	4. CIP code 52.0201
5. Degree/certificate designation Doctor of Philosophy (PhD)	6. Term and year of initiation Fall 2019
7a. For a proposed spin-off, title and degree designation of existing degree program 7b. CIP code (existing program)	
8. Term and year of first graduates Spring, 2023	9. Date approved by Board of Visitors
10. For community colleges: date approved by local board date approved by State Board for Community Colleges	
11. If collaborative or joint program, identify collaborating institution(s) and attach letter(s) of intent/support from corresponding chief academic officers(s)	
12. Location of program within institution (complete for every level, as appropriate and specify the unit from the choices). Departments(s) or division of _____ School(s) or college(s) of <u>School of Business</u> Campus(es) or off-campus site(s) <u>Fairfax (main) Campus</u>	
Mode(s) of delivery: face-to-face <input checked="" type="checkbox"/> hybrid (both face-to-face and distance) <input type="checkbox"/>	Distance (51% or more web-based) <input type="checkbox"/>
13. Name, title, and telephone number(s) of person(s) other than the institution's chief academic officer who may be contacted by or may be expected to contact Council staff regarding the modified program. Dr. Claudia Rector, Assistant Provost, crector@gmu.edu , 703-993-8679 Dr. Kevin Rockmann, Professor, krockman@gmu.edu , 7039-993-4988	

TABLE OF CONTENTS

Description of Proposed Program.....	1
Program Overview (Background).....	2
Mission.....	2
Accreditation.....	3
Admission Criteria.....	3
Target Population.....	4
Curriculum.....	4
Student Retention/Continuation Plan.....	10
Faculty.....	11
Program Administration.....	11
Student Assessment.....	11
Employment Skills/Workplace Competencies.....	15
Program Assessment.....	15
Benchmarks of Success.....	15
Expansion of Existing Programs.....	16
Relationship to Existing George Mason University Degree Programs.....	16
Compromising Existing Degree Programs.....	16
Collaboration or Standalone.....	16
Justification for the Proposed Program.....	17
Response to Current Needs (Specific Demand).....	17
Employment Demand.....	6
Student Demand.....	6
Duplication.....	7
Projected Resource Needs for the Proposed Program.....	10
Resource Needs.....	10
Resources Needs: Part A - D.....	12
Appendix A – Sample Plan of Study.....	1
Appendix B – Course Descriptions.....	1
Appendix C – “Abbreviated CVs” for Faculty.....	1

Description of Proposed Program

Program Overview (Background)

George Mason University requests approval to initiate a Doctor of Philosophy (PhD) degree program in Business, to be implemented in the Fall 2019 semester. The proposed program will be administered by the Office of the Dean in the non-departmentalized School of Business.

The primary purpose of the proposed degree is to educate graduates to serve the community as faculty, creating new knowledge in business through research and sharing that knowledge with society by teaching future generations of business professionals. The proposed program will provide graduates with a thorough understanding of how to conduct research to create new knowledge in business, how to apply that knowledge in service to businesses and organizations, and how to teach others to apply that knowledge themselves. The program will also provide graduates with advanced knowledge in one of four concentration areas: 1) Organizational Behavior; 2) Strategic Management; 3) Information Systems; and 4) Operations Management. By providing training in all of the major areas of faculty activity, plus advanced study in these selected subdisciplines in business, the proposed program will prepare graduates to work in any kind of higher education institution, from community colleges to research universities.

The proposed program responds to current needs in the Commonwealth of Virginia and in the nation as a whole. Both Virginia and the rest of the nation are experiencing a growth in demand for business educators stemming from growth in demand for business education. The increasing demand for business education is partly a result of a growth in population; Virginia has also experienced economic growth. Combined, these factors have increased Virginia's demand for people who are educated at the bachelor's and master's levels in education, which in turn has increased Virginia's demand for people who can teach them. Virginia's current production of PhDs in business fields is insufficient to meet this growing demand, thereby creating a shortage of business educators. Graduates from this program would help to address that shortage and meet Virginia's expanding need for business education.

Mission

George Mason University's mission statement reads: "A public, comprehensive, research university established by the Commonwealth of Virginia in the National Capital Region, we are an innovative and inclusive academic community committed to creating a more just, free, and prosperous world."

First, the proposed PhD in Business will align with George Mason's mission as a "public, comprehensive, research university" in two ways. First, it will increase the breadth of the university's offerings, thereby making it more comprehensive. Second, having doctoral students who can be employed as graduate research assistants will allow faculty in the School of Business to produce more actionable knowledge in the field of business.

Second, George Mason University is one of the most diverse institutions in the country, and will seek to maintain similar diversity in the proposed PhD in Business. By preparing a diverse pool

of students to become faculty, the proposed program will help to diversify faculty in the field of business. To the extent that a diverse faculty helps to encourage a diverse student population to succeed, the proposed program would make business education as a whole more inclusive and create “a more just, free and prosperous world.”

Accreditation

George Mason University’s School of Business is currently accredited in both Accounting and Business programs by the Association to Advance Collegiate Schools of Business (AACSB).

An AACSB peer review team visits each accredited school every five years to ensure that the school demonstrates compliance with the standards as well as continually improves its practices and processes. George Mason is set to be visited by AACSB in the 2019-2020 academic year and is currently on track to have AACSB accreditation reconfirmed.

AACSB permits new degree offerings at any time during the five-year accreditation cycle. Contingent upon SCHEV approval, the proposed PhD in Business will be incorporated into the 2024 review.

Admission Criteria

The following admission requirements apply to all graduate program applicants across the university. All applicants must:

- Submit a completed online application for graduate study.
- Submit a nonrefundable application fee.
- Submit one unofficial transcript from all institutions previously attended. Upon enrollment, students must submit official transcripts.
- Have earned a baccalaureate degree from a regionally accredited institution of higher education, or international equivalent.
- Have earned a minimum 3.00 GPA on a 4.00 scale in baccalaureate study.

In addition, applicants who have not earned a baccalaureate degree in the U.S. must submit:

- Official English translations of all diplomas, certificates, and transcripts that are not already in English. Also, documents from foreign institutions must meet the university’s guidelines for international transcript submission.
- Proof of English proficiency: either TOEFL, IELTS academic exam, or Pearson Test of English meeting the minimum requirements:
 - TOEFL: 88 points total and a minimum of 20 points in each section (IBT) or 570 (PBT)
 - IELTS: 6.5 total band score
 - Pearson: 59 overall score

The School of Business also requires applicants to submit:

- Scores from the Graduate Management Admissions Test (GMAT) or Graduate Record Examination (GRE) tests taken within the last five years. Minimum scores are as follows:

- GMAT: 600
- GRE Verbal 155
- GRE Quantitative 155
- GRE Analytical 3.5
- Three letters of recommendation, ideally including at least one letter from a current or former professor and one letter from a current or former supervisor.
- Resume, including relevant work experience.
- Statement of professional and academic mission and goals.
- Personal interview.

Students will be admitted to the proposed PhD in Business to start in the fall semester only.

Target Population

The target population for the proposed program are students who have completed a bachelor's or master's degree in business, psychology, computer science, engineering, economics or a related field.

Curriculum

The proposed PhD in Business program requires 72 credits. The program will require the selection of an area of concentration and the completion of a doctoral dissertation.

The purpose of the proposed program is to prepare students to become effective teachers and researchers in the field of business. A particular strength of the proposed PhD in Business—and something that would make it unique amongst those offered by Virginia public institutions—is a program core common to all concentrations that focuses on building skills in the core areas of faculty work—research, writing, and teaching—as these are conducted within the academic field of business. In addition, there are four concentrations (Organizational Behavior, Strategic Management, Information Systems and Operations Management) that each require a concentration core designed to provide students with specialized expertise in a subdiscipline in business.

The three credits of BUS 801: Field Research in Business are experiential learning. For this course, the School of Business will pair students with one or more organizations to take the lead on a practical research project corresponding with the student's interests and the organization's needs. For example, a student electing the concentration in Organizational Behavior might choose a project where the organization is trying to solve a problem with leadership in teams. In that case, the student would have to figure out how to collect the kind of information on the teams that would provide insight into the problem (i.e., applying knowledge of research methods) and then conduct the analysis of the data. Projects for this course will not result in an academic paper; they need to be concrete contributions to solving problems or making improvements in one or more businesses and organizations. As such, students will gain hands-on experience in applying knowledge in research and analysis to concrete problems, providing facility with the techniques and also insight into the nuances and complexities of actual organizations.

The proposed program meets AACSB standards for doctoral programs. The AACSB Doctorate Degree Programs guidelines (2013 version) are listed below. After each item the associated course within the PhD program which directly addresses this guideline is listed.

In addition to the general skill and knowledge areas and additional learning experiences for specialized master's degrees, doctoral degree programs normally would include:

- Advanced research skills for the areas of specialization leading to an original substantive research project (*BUS 703; BUS 998; BUS 999*)
- Understanding of managerial and organizational contexts for areas of specialization (*BUS 801*)
- Preparation for faculty responsibilities in higher education, including but not limited to teaching, (*BUS 701; BUS 702*)

Doctoral degrees normally would also include learning experiences appropriate to the type of research emphasized, as follows:

Programs emphasizing advanced foundational discipline-based research in an area of specialization:

- Deep knowledge of scholarly literature in areas of specialization (*all Concentration Seminars*)

Programs emphasizing rigorous research for application to practice in a specified discipline:

- Understanding the scholarly literature across a range of business and management disciplines (*all Concentration Seminars*)
- Preparation for careers applying research to practice (*BUS 702; BUS 801*)

Consistent with university policy, students may be terminated for failing to maintain satisfactory academic progress as determined by the college or school. The School of Business has determined that students in the proposed PhD in Business must maintain at least a B average in all courses below the 900 level, and may not earn more than six credits' worth of C grades cumulatively or they will be dismissed from the program. Any student who receives a grade of F in a concentration core course or in BUS 703 will be dismissed from the program. A grade of S (Satisfactory/Pass) or NC (Unsatisfactory/Fail) will be used for BUS 998 and BUS 999.

The School of Business developed 15 new courses for the proposed program. New courses are indicated with an asterisk.

Core Courses (15 credits)

All students must take the following courses:

BUS 701: Professional Practicum (3 credits) *

BUS 702: Writing for Business PhD Students (3 credits) *

BUS 703: Research Project (3 credits, must be repeated once for a combined total of 6 credits) *

BUS 801: Field Research in Business (3 credits) *

Concentration (42 credits)

All students must choose a concentration.

Concentration in Organizational Behavior

Organizational Behavior Core Courses (12 credits)

MGMT 711: Seminar in Organizational Behavior (3 credits) *

MGMT 712: Seminar in Strategic Management (3 credits) *

MGMT 892: Special Topics in Management (3 credits, repeatable for different topics) *

Research Methods (15 credits)

Research methods courses are designed to prepare students to evaluate and investigate a range of research approaches and apply qualitative and quantitative data collection and analysis appropriate to research in management. Students, with the approval of their faculty advisor, will choose the 15 credits that are most appropriate for their specific program of study.

PSYC 611: Advanced Statistics (3 credits)

PSYC 754: Quantitative Methods III: Psychological Applications of Regression Techniques (3 credits) or PSYC 892: Special Topics in Psychology (3 credits)

PSYC 756: Quantitative Methods IV: Multivariate Techniques in Psychology (3 credits)

PSYC 892: Special Topics in Psychology ¹ (1-6 credits)

SOCI 634: Qualitative Research Methods (3 credits)

SOCI 730: Analytic Techniques of Social Research (3 credits)

SOCI 631: Survey Research (3 credits)

SOCI 620: Methods and Logic of Inquiry (3 credits)

SOCI 655: Ethnography (3 credits)

SOCI 670: New Media and Networks (3 credits)

STAT 525: Nonparametric Statistics and Categorical Data Analysis (3 credits)

STAT 526: Applied Regression Analysis (3 credits)

STAT 554: Applied Statistics I (3 credits)

STAT 654: Applied Statistics II (3 credits)

STAT 656: Regression Analysis (3 credits)

STAT 634: Case Studies in Data Analysis (3 credits)

STAT 652: Statistical Inference (3 credits)

STAT 662: Multivariate Statistical Methods (3 credits)

¹ This will only be counted if special topic is research methods focused and the course is at least 3 credits. For example, "SEM Meta-Analysis" as offered in Spring of 2018 (3 credits).

Minor (15 credits)

Students must choose a minor area, which consists 15 credits of approved coursework in a specific area. A student may minor with another concentration in Business, or may develop a minor with the approval of the academic advisor. No more than one Independent Study course with a faculty member may be used towards satisfying the minor requirement. Examples of minor areas could include psychology, sociology, economics, communication, gender studies, and research methods. Courses taken to fulfill the minor must be in addition to any other requirements for the concentration.

Concentration in Strategic Management (42 credits)

Strategic Management Core Courses (12 credits)

MGMT 711: Seminar in Organizational Behavior (3 credits)*

MGMT 712: Seminar in Strategic Management (3 credits)*

MGMT 892: Special Topics in Management (3 credits, repeatable for different topics)*

Research Methods (15 credits)

Research methods courses are designed to prepare students to evaluate and investigate a range of research approaches and apply qualitative and quantitative data collection and analysis appropriate to research in management. Students, with the approval of their faculty advisor, will choose the 15 credits that are most appropriate for their specific program of study.

ECON 637: Econometrics I (3 credits)

ECON 838: Econometrics II (3 credits)

PSYC 611: Advanced Statistics (3 credits)

PSYC 754: Quantitative Methods III: Psychological Applications of Regression Techniques (3 credits) or PSYC 892: Special Topics in Psychology (3 credits)

PSYC 756: Quantitative Methods IV: Multivariate Techniques in Psychology (3 credits)

PSYC 892: Special Topics in Psychology ² (1-6 credits)

SOCI 620: Methods and Logic of Inquiry (3 credits)

SOCI 631: Survey Research (3 credits)

SOCI 634: Qualitative Research Methods (3 credits)

SOCI 655: Ethnography (3 credits)

SOCI 670: New Media and Networks (3 credits)

SOCI 730: Analytic Techniques of Social Research (3 credits)

STAT 525: Nonparametric Statistics and Categorical Data Analysis (3 credits)

STAT 526: Applied Regression Analysis (3 credits)

STAT 554: Applied Statistics I (3 credits)

STAT 634: Case Studies in Data Analysis (3 credits)

² This will only be counted if special topic is research methods focused and the course is at least 3 credits. For example, "SEM Meta-Analysis" as offered in Spring of 2018 (3 credits).

STAT 652: Statistical Inference (3 credits)
STAT 654: Applied Statistics II (3 credits)
STAT 656: Regression Analysis (3 credits)
STAT 662: Multivariate Statistical Methods (3 credits)

Minor (15 credits): Students must choose a minor area, which consists 15 credits of approved coursework in a specific area. A student may minor with another concentration in Business, or may develop a minor with the approval of the academic advisor. No more than one Independent Study course with a faculty member may be used towards satisfying the minor requirement. Examples of minor areas could include economics, entrepreneurship, sociology, international business, and research methods. Courses taken to fulfill the minor must be in addition to any other requirements for the concentration.

Concentration in Information Systems (42 credits)

Information Systems Core Courses (12 credits)

MIS 721: Seminar in IS (1.5 credits)*
OM 721: Seminar in OM (1.5 credits)*
MIS 722: Seminar in Economics of IS (3 credits)*
MIS 723: Seminar in Technology Research in IS (3 credits)*
MIS 892: Special Topics in IS (3 credits, repeatable for different topics)*

Research Methods (15 credits)

Research methods courses are designed to prepare students to evaluate and investigate a range of research approaches including forming a solid background in statistics, data mining, and econometrics. Students, with the approval of their faculty advisor, will choose the 15 credits that are most appropriate for their specific program of study. Examples of such courses could include:

CS 811: Research Topics in Machine Learning and Inference (3 credits)
ECON 637: Econometrics I (3 credits)
ECON 838: Econometrics II (3 credits)
STAT 656: Regression Analysis (3 credits)
STAT 662: Multivariate Statistical Methods (3 credits)

Minor (15 credits)

Students must choose a minor area, which consists 15 credits of approved coursework in a specific area. A student may minor with another concentration in Business, or may develop a minor with the approval of the academic advisor. No more than one Independent Study course with a faculty member may be used towards satisfying the minor requirement. Examples of minor areas could include economics, computer science, statistics, and operations research. Courses taken to fulfill the minor must be in addition to any other requirements for the concentration.

Concentration in Operations Management

Operations Management Core Courses (12 credits)

MIS 721: Seminar in IS (1.5 credits)*

OM 721: Seminar in OM (1.5 credits)*

OM 731: Seminar in Supply Chain Management (3 credits)*

OM 732: Seminar in Innovation and New Product Development (3 credits)*

OM 893: Special Topics in Operations Management (3 credits, repeatable for different topics)*

Research Methods (15 credits)

Research methods courses are designed to prepare students to evaluate and investigate a range of research approaches including forming a solid background in empirical and analytical modeling methods. Students, with the approval of their faculty advisor, will choose the 15 credits that are most appropriate for their specific program of study. Examples of such courses could include:

ECON 611: Microeconomic Theory (3 credits)

ECON 637: Econometrics I (3 credits)

ECON 838: Econometrics II (3 credits)

OR 641: Linear Programming (3 credits)

OR 642: Integer Programming (3 credits)

OR 645: Stochastic Processes (3 credits)

STAT 662: Multivariate Statistical Methods (3 credits)

Minor (15 credits)

Students must choose a minor area, which consists 15 credits of approved coursework in a specific area. A student may minor with another concentration in Business, or may develop a minor with the approval of the academic advisor. No more than one Independent Study course with a faculty member may be used towards satisfying the minor requirement. Examples of minor areas could include economics, computer science, statistics, and operations research. Courses taken to fulfill the minor must be in addition to any other requirements for the concentration.

Comprehensive Exam (0 credits)

A written comprehensive examination will determine whether the student has the necessary knowledge and skills to undertake dissertation work. The comprehensive exam must be taken within one year of completion of all PhD in Business and Concentration core courses. For most students, this will occur between the end of the 2nd year and the end of the 3rd year in the program. Students shall indicate their intent to take the exam at least three months before the exam. Students must have organized a dissertation committee with a chair approved by the School of Business PhD Program Director. The dissertation committee will develop and evaluate the individual comprehensive exam on a pass/fail basis. The exam will assess the student's

ability to apply theoretical concepts of research design and methods (including for example study design, analytical model development, data acquisition or collection, data management, analysis and interpretation) to relevant research questions in the student's concentration and minor area of research.

Students must pass the comprehensive exam to enter PhD candidacy. A student who fails the comprehensive exam on the first attempt may try again within six months. A student who fails the second comprehensive exam will be dismissed from the program.

Dissertation Research (up to 15 credits)

All students must satisfactorily complete a doctoral dissertation. The dissertation must clearly demonstrate the candidate's ability to apply principles of business-related problems within a concentration. It must integrate knowledge of various disciplines with knowledge of relevant practice and theory. The dissertation must also make a significant contribution to existing knowledge or practice within the relevant concentration. Students must register for 3 or 6 credits the first semester enrolled in BUS 998. Students must register for at least 1 credit of BUS 998 or BUS 999 thereafter until all work has been completed, including the semester in which degree is received. Students must apply a minimum of 12 dissertation credits (BUS 998 and BUS 999 combined) to the degree.

BUS 998: Doctoral Dissertation Proposal (1 – 6 credits)

BUS 999: Doctoral Dissertation Research (1 – 18 credits)

Total credits required for the degree: 72

Appendix A provides a Sample Plan of Study for fulltime and part-time students. See Appendix B for Course Descriptions.

Student Retention/Continuation Plan

Consistent w/ current School of Business practices, all graduate students (FT and PT) have a full-time faculty advisor who is assigned at the time of admission. The student meets with the academic advisor at least yearly to plan their program of study, receive career development advice and receive guidance on matters related to succeeding in graduate school and the capstone practicum. All graduate students have a written matriculation plan that is updated by the student and advisor annually. Additionally, the Director of the PhD program is responsible to oversee the matriculation and progress of each student admitted to the program. The PhD Director will meet with PhD students and advisors to facilitate program planning and assist with problem-solving issues as they arise. Additionally, meetings with all PhD students are planned several times a year to discuss program plans, advice for doctoral program success, research mentorship and career development. Student matriculation progress and program completion rates, along with comprehensive exam performance are metrics used by the School of Business Director of Research and the Graduate Policy Committee as part of the annual program review. Gaps in student progress and comprehensive exam results are reported as part of this effort.

Faculty

The non-departmentalized School of Business has 116 regular faculty. Eighteen full-time faculty will teach the required courses for the proposed PhD in Business. All faculty members have a doctoral degree in Business or Business Administration, a subdiscipline thereof (e.g., Management), or a closely related field (e.g., Psychology for a faculty member teaching in organizational behavior.) All School of Business faculty teaching in the program have active research agendas and publications lists appropriate to their academic ranks. Seven of the eighteen School of Business faculty who will teach in the proposed program are designated as “Dean’s Scholars,” as they have published consistently at top journals for several years. These faculty have chaired divisions in professional associations, serve on the editorial boards of the top journals, and have written for well-known practitioner outlets such as *Harvard Business Review*. These faculty have also served or are currently serving as editors or associate editors of premier journals.

Adjunct faculty will hold a doctoral degree in Business or Business Administration, a subdiscipline thereof (e.g., Management), or a closely related field (e.g., Psychology for a faculty member teaching in organizational behavior.)

Program Administration

The proposed PhD in Business will have a faculty program director already employed by the School of Business. The program director will also teach one of the required courses in the program. The program director will be responsible for coordinating faculty committees to make admissions decisions and to oversee the curriculum. The program director will also serve as a provisional advisor to all students until they choose a faculty mentor/dissertation supervisor appropriate to their particular interests. The program director will devote approximately .20 FTE to directing the program.

An administrative assistant already employed by the School of Business will provide support for the proposed program. The administrative assistant will receive and direct inquiries, schedule meetings, and process paperwork relating to graduate assistantships. The administrative assistant will devote .25 FTE to supporting the program.

Student Assessment

Students in the PhD in Business degree will be assessed in courses through assignments that include literature reviews, research projects, and research papers. Upon graduation, students are expected to demonstrate competency in all learning outcomes. Learning outcomes are delivered across the curriculum such that each student is exposed to each learning outcome several times throughout the curriculum.

The learning outcomes for core curriculum of the proposed PhD in Business degree will consist of the following:

- Develop substantive knowledge in their area of specialization.
- Master the analytical and methodological skills required to evaluate and conduct research in their area of specialization.
- Design and conduct original research in their area of specialization.
- Demonstrate the ability to communicate the results of their research to academic and practitioner audiences in a clear and effective manner.
- Demonstrate an understanding and concern for the high ethical standards in business research, teaching, and service.
- Demonstrate the ability to teach college-level courses in their area of specialization.

The proposed PhD in Business degree contains four concentrations: Organizational Behavior, Strategic Management, Information Systems, and Operations Management. The learning outcomes for each concentration are as follows:

Organizational Behavior:

- Demonstrate/Apply/Synthesize knowledge of theory associated with psychology and organizational behavior.
- Employ/Use survey, experiment, and / or field methodologies which best matches research questions of interest.
- Design and conduct organizational behavior research intended for premier academic outlets.
- Effectively teach courses such as organizational behavior, principles of management, leadership, human resource management, diversity, cross-cultural management, teams, or negotiation.

Strategic Management:

- Demonstrate/Apply/Synthesize knowledge of theory associated with strategic management and related disciplines such as sociology and economics.
- Employ/Use archival and / or field methodologies which best matches research questions of interest.
- Design and conduct of strategy research intended for premier academic outlets.

- Effectively teach courses such as strategic management, international strategy, principles of management, or entrepreneurship.

Information Systems:

- Demonstrate/Apply/Synthesize knowledge of theory associated with management of information systems and related disciplines such as economics and sociology.
- Employ/Use modeling and/or secondary data analysis and data collection methodologies which best matches research questions of interest.
- Design and conduct information systems research intended for premier academic outlets.
- Effectively teach courses such as management of information technology, systems analysis and design, database management, security, analytics or programming.

Operations Management:

- Demonstrate/Apply/Synthesize knowledge of theory associated with operations management and related disciplines such as economics and industrial engineering.
- Employ/Use analytical modeling and/or secondary data analysis and data collection methodologies which best matches research questions of interest.
- Design and conduct operations management research intended for premier academic outlets.
- Effectively teach courses such as operations management, supply chain management, logistics, or new product/service development.

Methodology of Assessment

Assessment includes the following methodologies:

- For core curriculum assessment related to research, BUS 703 – Research Project and BUS 801 – Field Research in Business, will be used to measure how completely students have met expected competency requirements. Student work (direct measures) will be scored on rubrics that measure the competency level for each learning outcome. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations
- For core curriculum assessment related to writing, BUS 702 – Writing for Business PhD Students, will be used to measure how completely students have met expected competency requirements. Student work (direct measures) will be scored on rubrics that

measure the competency level for each learning outcome. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations

- For the Organizational Behavior concentration, MGMT 711 – Seminar in Organizational Behavior will contain an assignment where students are asked to synthesize their understanding of the literature and how they might design a study to address an organizational problem. This assignment will be assessed with a rubric that will be developed by the faculty teaching this course. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations
- For the Strategic Management concentration, MGMT 712 – Seminar in Strategic Management will contain an assignment where students are asked to synthesize their understanding of the literature and how they might design a study to address an organizational problem. This assignment will be assessed with a rubric that will be developed by the faculty teaching this course. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations
- For the Information Systems concentration, MIS 721 – Seminar in Information Systems will contain an assignment where students are asked to synthesize their understanding of the literature and how they might design a study to address an information systems problem. This assignment will be assessed with a rubric that will be developed by the faculty teaching this course. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations
- For the Operations Management concentration, OM 721 – Seminar in Operations Management will contain an assignment where students are asked to synthesize their understanding of the literature and how they might design a study to address an operations management problem. This assignment will be assessed with a rubric that will be developed by the faculty teaching this course. Achievement targets are: 0% Failing to Meet Expectations; 70% Meeting Expectations; 0% Exceeding Expectations

Employment Skills/Workplace Competencies

Graduates of the proposed program will be prepared to:

- Plan, develop and teach courses in general (e.g., lower-division undergraduate) business as well as upper-division and graduate courses in areas relating to the student's specialization
- Design research projects using methods suitable to the area of business practice leading to new knowledge in the field of business
- Present research findings at academic conferences and at academic outlets (e.g., journals)
- Demonstrate thought leadership by translating research findings for practitioner audiences
- Be adept at connecting to business via research projects, consulting, and executive education
- Be prepared to mentor doctoral students while designing future lines of research inquiry

Program Assessment

Faculty of the School of Business under the purview of the Director of Research for the School of Business will evaluate the School of Business PhD program. Consistent with other School of Business academic programs, the annual review and assessment metrics include individual student, faculty and program outcome measures (normative and summative). Student's academic progress is reviewed every semester, as are student evaluations of faculty teaching and courses. Course evaluation data is reviewed by peers and Department Administrators in various program evaluation activities and with individual faculty in their annual performance reviews; program alumni are surveyed annually post-graduation. Results from student, faculty and alumni evaluations are utilized by the School of Business as part of its comprehensive and longitudinal plan that evaluates program outcomes at individual and aggregate student, faculty and alumni levels to inform curriculum and program evaluation. Findings and recommendations are utilized by the School to improve programs and program competency achievement on a recurring basis.

The proposed program will be reviewed on the seven-year cycle typical of programs within the university. The Academic Program review takes place under the guidance of the Office of Institutional Assessment and requires four semesters to complete. The outcomes of the process are a series of deliverables—a self-assessment report and academic plan written by program faculty and a report by a review team external to the program, as well as changes made to enhance the program. Finally, consistent with George Mason policy, the Board of Visitors will conduct an initial review of the program five years from date of implementation (Fall 2024).

Benchmarks of Success

The benchmarks of success of this program include:

- 75% of full-time students will complete the program in five years or less

- 80% of graduates of the program will report satisfaction with the program during their exit interviews
- 75% of students will either have published a paper in a peer-reviewed journal or presented an abstract at a national meeting before graduation from the program
- 75% of graduated students will have earned jobs or postdoctoral fellowships within the field, assessed two years after completion of the program.

Data on enrollment, publications, student and alumni satisfaction and employment post-graduation benchmarks will be collected and reviewed annually by the PhD Program Director.

If these benchmarks of success are not met, the School of Business Graduate Policy Committee, with the PhD Program Director, will make an assessment of the benchmark gap and recommend a plan for improvement and/ or correction. For example, if assessment suggests that students are not obtaining the skills they need to publish or present an abstract, then the PhD Program Director will work with the Graduate Policy Committee to review BUS 701 and 702 to determine where the shortcomings are, and revise the curriculum as appropriate. If enrollment is a concern, the Program Director will work with the School of Business marketing team to assist with marketing the program.

Expansion of Existing Programs

The proposed PhD in Business is not an expansion of an existing certificate, concentration, emphasis, major, minor or track.

Relationship to Existing George Mason University Degree Programs

There is no existing George Mason University doctoral program that is similar or related to the proposed PhD in Business. There are other units on campus (such as Psychology, Computer Science, Sociology or Economics) that offer coursework that could be of interest to individual students depending on their desired focus, but the programs themselves are focused in those disciplines and not comparable to the proposed PhD in Business. While some of the coursework in the Organizational Behavior concentration is similar to the I/O Psychology doctoral program the research requirements for the PhD program in Business are more stringent (e.g., 9 credits in the core with BUS 703 and BUS 801). Also, the majority of the I/O Psychology students go to applied careers rather than academic careers and are trained as such.

Compromising Existing Degree Programs

No degree programs will be compromised or close as a result of the initiation and operation of the proposed degree program.

Collaboration or Standalone

This is a standalone program. No other organization was involved in its development, and no other organization will collaborate in its operation.

Justification for the Proposed Program

Response to Current Needs (Specific Demand)

By all accounts the demand in Virginia for business educators is growing, and has been steadily growing for the past 20 years. Because of the demand for business educators *with PhDs in Business*, our program fills a niche in the employment market in Virginia.

We can see this trend first in the population growth data for Virginia. As of the 2010 Census, the population of Virginia was approximately 8.001 million – the population estimate of Virginia as of July 1, 2016 is 8.411 million, an increase of 5.1%.³ This compares favorably to the overall population growth of the United States, which is estimated to be 4.7% over the same time period. The total population of Virginia has also increased substantially since 2000, when the census reported an overall population of 7.078 million, an increase of 18.8%.⁴

Virginia also compares favorably in terms of the employment of the overall workforce, with 64.7% of the population in the civilian labor force and 1.7% in the Armed Forces (66.4% total), compared to 63.3% and 0.4%, respectively, for the United States as a whole (63.7% total).⁵ Virginia had 4.2% unemployment in the 2015 American Community Survey, compared to 5.2% for the United States as a whole.

This population growth has led to business growth in Virginia. In 2007 there were 638,643 firms in Virginia.⁶ By 2012 the number of firms in Virginia had grown to 653,193, an increase of 2.27%.⁷

This increase in population, reduction in unemployment, and increase in firms in Virginia has corresponded with an increase in business education in the state of Virginia. The chart below graphs the percent and the number of all Bachelor's Degrees for the broad program *Business, management, marketing, and related support services* as provided by SCHEV.⁸

³ [https://www.census.gov/quickfacts/fact/table/US/PST045216?](https://www.census.gov/quickfacts/fact/table/US/PST045216?_lang=en)

⁴ https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?_af=1&_lang=en

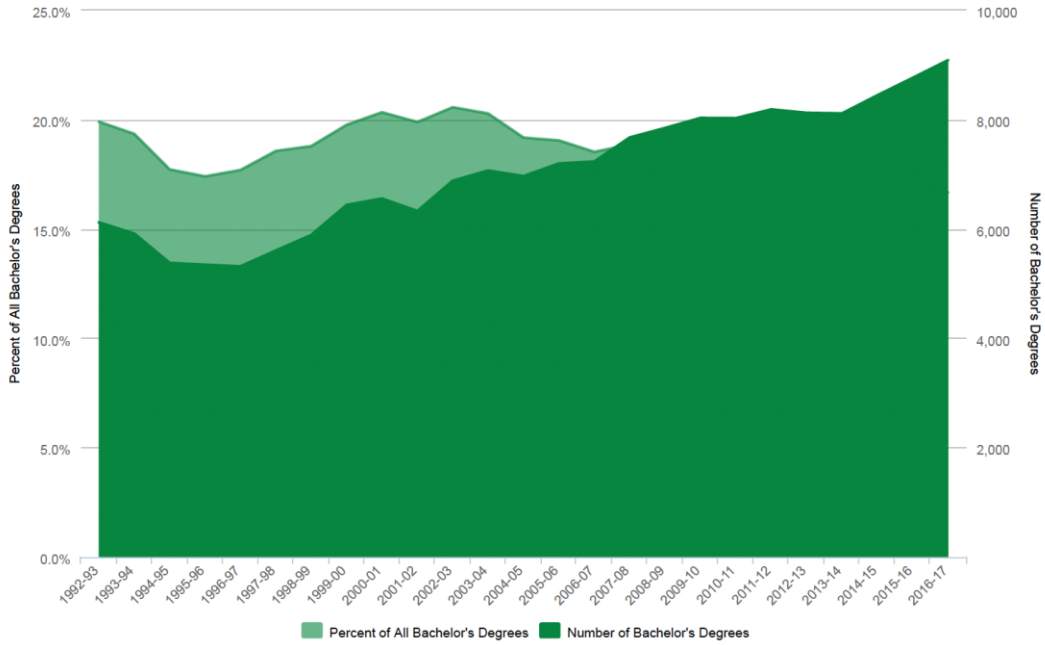
⁵ American Community Survey, 2015

⁶ US Census Bureau. 2007 Survey of Business Owners.

⁷ US Census Bureau. 2012 Survey of Business Owners.

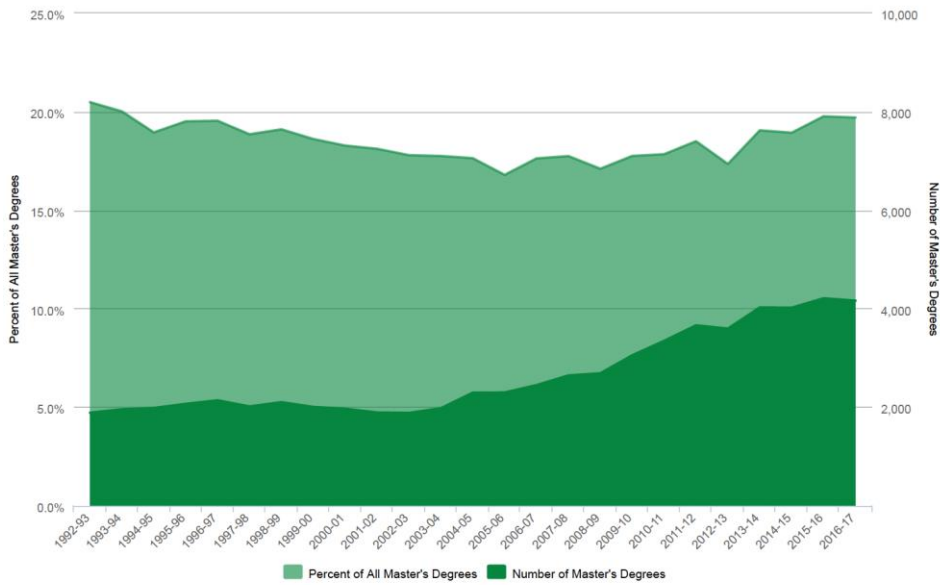
⁸ SCHEV

FIGURE 1: Business Bachelor's Degrees in Virginia 1992-2017



As seen in Figure 1, we can see significant growth in the number of Bachelor's Degrees conferred by Virginia institutions over the last 20 years. We see a similar trend at the Master's level.

FIGURE 2: Business Master's Degrees in Virginia 1992-2017



Again we see a significant increase in the number of Master’s Degrees conferred from Virginia institutions, with the peak growth occurring from 2005 through 2017. We can also examine this data year-by-year at both the Bachelor and Masters’ Degree levels.⁹

TABLE 1: Business Bachelor’s and Master’s Degrees Conferred in Virginia 1995-2017

	Bachelor's Degrees (VA total)	Master's Degrees (VA total)
1995 -- 1996	5344	2065
1996 -- 1997	5314	2137
1997 -- 1998	5604	2013
1998 -- 1999	5887	2099
1999 -- 2000	6437	2003
2000 -- 2001	6555	1966
2001 -- 2002	6326	1890
2002 -- 2003	6881	1882
2003 -- 2004	7067	1976
2004 -- 2005	6965	2292
2005 -- 2006	7196	2296
2006 -- 2007	7232	2446
2007 -- 2008	7672	2642
2008 -- 2009	7846	2686
2009 -- 2010	8030	3051
2010 -- 2011	8026	3344
2011 -- 2012	8186	3660
2012 -- 2013	8123	3593
2013 -- 2014	8113	4023
2014 -- 2015	8445	4018
2015 -- 2016	8764	4209
2016 -- 2017	9089	4161
% increase	170%	202%

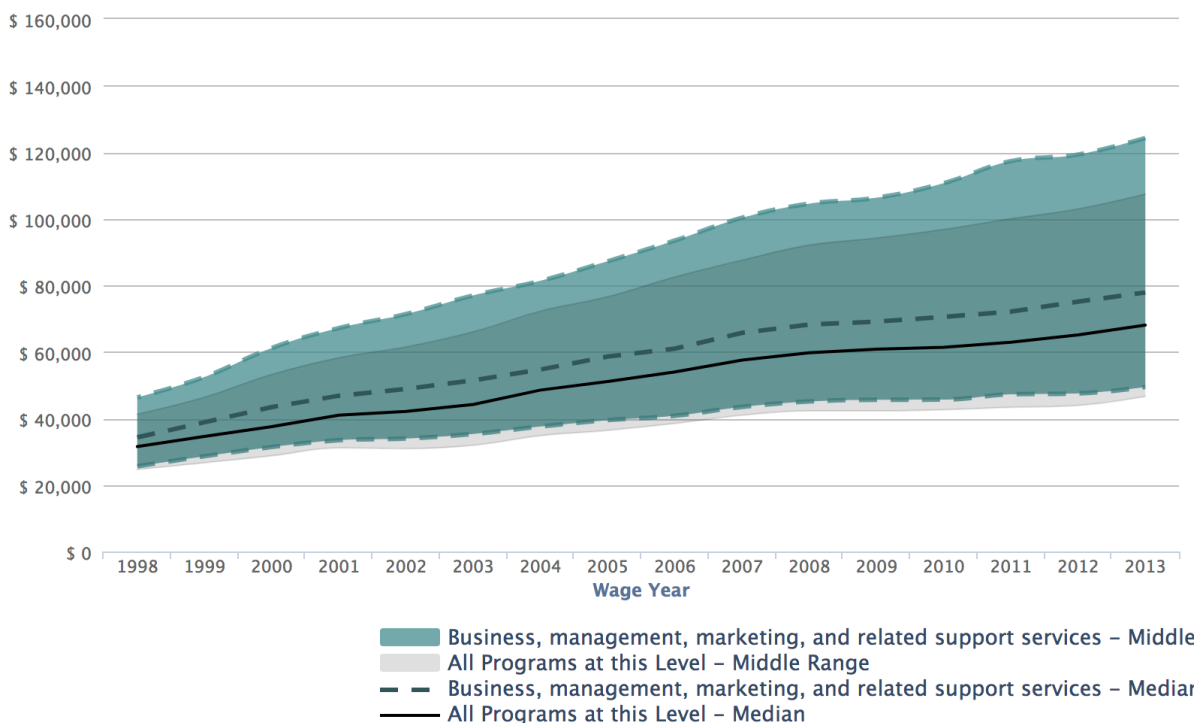
This table show a significant growth in the number of business degrees being conferred in Virginia – 170% at the Bachelor’s Degree level and 202% at the Master’s Degree level since 1995. Thus it seems that with the population and business growth, the market has demanded more business education within the Commonwealth.

Part of the popularity of the business degree could also be due to rising wages in the field of business. The following chart overlays the middle range of earnings (25th to 75th percentile) for

⁹ SCHEV

Business, management, marketing, and related support services compared to all programs at the Bachelor's Degree level from 1998-2013.¹⁰

FIGURE 3: Business Degree Earners Wage Growth 1998-2013



We can see in this figure that not only have wages for Bachelor's Degree in Business earners increased from a median of \$34,296 to \$77,830 in this time period (an increase of 226%), but that this outpaces all earnings increases at the Bachelor's Degree level (from \$31,543 to \$68,036, an increase of 216%). The differences become more pronounced at higher levels of earnings.

Thus due to population growth, employment growth, and wage growth the demand for business education has grown. To offer business education, though, requires doctoral degrees in Business. Not surprisingly, we can see that there is significant demand in the Commonwealth for Business professors, *specifically in the concentrations listed for this PhD program:* Organizational Behavior, Strategic Management, Information Systems Management, and Operations Management.

As of Fall 2017 (in preparation for Fall 2018), there were 28 different positions listed at Virginia public institutions for faculty being served by these four concentrations.

A list of these positions are as follows:

¹⁰ SCHEV

- George Mason University (4 positions)
- James Madison University (1 position)
- Liberty University (2 positions)
- Longwood University (1 position)
- Radford University (1 position)
- University of Richmond (3 positions)
- University of Virginia (7 positions)
- Virginia Commonwealth University (3 positions)
- Virginia Polytechnic University (5 positions)
- William & Mary University (1 position)

Organizational Behavior

More specifically, we can see variance across the four concentrations. The Organizational Behavior concentration will prepare students for positions in Organizational Behavior or Management. Among these positions, there are currently five such openings.

- George Mason University (1 position)
- University of Virginia (3 positions)
- Virginia Commonwealth University (1 position)

Strategic Management

The Strategic Management concentration will prepare students for positions in Strategy, International Business, or Entrepreneurship. Among these positions, there are currently five such openings.

- University of Richmond (2 positions)
- University of Virginia (1 position)
- Virginia Polytechnic University (2 positions)

Information Systems Management

The Information Systems Management concentration will prepare students for positions in Information Systems, Information Technology, Business Analytics, Data Analytics, Quantitative Analytics, and Data Science.¹¹ Among these positions, there are currently twelve such openings.

- George Mason University (2 positions)
- James Madison University (1 position)
- Liberty University (1 position)
- University of Virginia (3 positions)
- Virginia Commonwealth University (1 position)

¹¹ Only positions *within business schools* are used for this analysis. There are also positions in Data Science in Statistics Departments, for example, that are outside of the scope here.

- Virginia Polytechnic University (3 positions)
- William & Mary University (1 position)

Operations Management

The Operations Management concentration will prepare students for positions in Operations Management, Project Management, or Supply Chain Management. Among these positions, there are currently six such openings.

- George Mason University (1 position)
- Liberty University (1 position)
- Longwood University (1 position)
- Radford University (1 position)
- University of Richmond (1 position)
- Virginia Commonwealth University (1 position)

As shown in the following table, a closer look at PhD program enrollment data from public universities in the Commonwealth of Virginia highlights the need for Ph.D. programs focused on addressing the above-highlighted market needs.

Specifically, as of 2016-2017, there were only four institutions within the Commonwealth of Virginia with Business School Ph.D. programs in Business with the potential to fill these vacancies: University of Virginia, Virginia Commonwealth University, Virginia Tech. and Old Dominion University.

As seen in the following table, there is evidence that there is a lack of supply of PhD students with the capability to fill the needs in the Commonwealth as specified above. This is based first on the significant growth in business education within Virginia. Second, as we can see in the table, there is no growth in terms of PhD Degrees offered across the four Doctoral programs in Business. Third, the totals represent concentrations well beyond those under purview here, including Accounting (VCU, VT), Finance (VT, ODU), Ethics (UVA), and Marketing (VT, ODU). Thus the total number of degrees conferred is higher than the number of degrees being offered in the concentrations of organizational behavior, strategic management, information systems management, and operations management.

Given the modest size of the proposed PhD Program in Business, we conclude that we would fill an important gap in the specific demand for PhD faculty teaching business within the Commonwealth.

Why George Mason University?

The School of Business is fully engaged with the regional business community, graduating highly qualified business students, producing research that informs business policy and operations, and providing venues for the region's business leaders to work with our students in the classroom and to learn from each other. Business leaders and organizations are actively engaged through executive education programs, speaker engagements, classroom lectures, case

competitions, internships, and career placement. PhD student projects and increased research is a potential bridge to the Mason alumni community, creating value by increasing engagement with that group, for example by using organizations as research sites.

The school's centers and initiatives also provide a bridge between students and the business community. These include:

- Center for Infrastructure Protection & Homeland Security
- Center for Innovation & Entrepreneurship
- Center for Real Estate Entrepreneurship
- Investor Protection & Corporate Fraud Research Center
- Mason Government Contracting Initiative
- Women in Business Initiative

Employment Demand

Evidence of employment demand comes from an analysis of federal and Commonwealth employment projections. Employment projections in the Bureau of Labor Statistics' *Occupational Outlook Handbook* and the Virginia Employment Commission's *Labor Market Information* website show the viability of employment of graduates of the proposed PhD in Business.

According to the Bureau of Labor Statistics (BLS), employment for postsecondary teachers in business is expected to grow 18% from 2016-2026, faster than the average for all occupations.¹² The BLS notes, "The number of people attending postsecondary institutions is expected to grow in the next decade. Students will continue to seek higher education to gain the additional education and skills necessary to meet their career goals. As more people enter colleges and universities, more postsecondary teachers will be needed to serve these additional students."

According to the Virginia Employment Commission, employment for postsecondary teachers in business is expected to grow 22.69% from 2016-2026, with an annual percentage change of 2.07%.¹³

Student Demand

The evidence for student demand comes from two sources: 1) a survey of upper-division undergraduate students in business and 2) a survey of students in the MBA program.

¹² U.S. Bureau of Labor Statistics, "Postsecondary Teachers – How to Become One," *Occupational Outlook Handbook*, <https://www.bls.gov/ooh/education-training-and-library/postsecondary-teachers.htm#tab-6>. Accessed August 28, 2018

¹³ Virginia Employment Commission, "Business Teachers, Postsecondary." *Labor Market Information* website, <https://data.virginialmi.com/vosnet/analyzer/results.aspx?session=occproj>. Accessed August 28, 2018.

First, and most importantly, we have received continual interest from our own MBA students regarding the potential pursuit of a PhD program. Second, the programs in the greater Washington DC area have not shrunk at all, indicating a demand for PhD education in the region. Third, as evidenced by the section on current needs, business schools in the Commonwealth are growing, indicating that more and more students will be drawn to PhD programs to work in those schools.

STATE COUNCIL OF HIGHER EDUCATION FOR VIRGINIA
SUMMARY OF PROJECTED ENROLLMENTS IN PROPOSED PROGRAM

Projected enrollment:

Year 1		Year 2		Year 3		Year 4 Target Year (2-year institutions)			Year 5 Target Year (4-year institutions)		
2019 - 2020		2020 - 2021		2021 - 2022		2022 - 2023			2023 - 2024		
HDCT	FTES	HDCT	FTES	HDCT	FTES	HDCT	FTES	GRAD	HDCT	FTES	GRAD
<u>5</u>	<u>4</u>	<u>9</u>	<u>6</u>	<u>12</u>	<u>8</u>	<u>16</u>	<u>11</u>	_____	<u>16</u>	<u>11</u>	<u>4</u>

Assumptions:

- 90% Retention
- 80% Full-time students/20% part-time students
- Full-time students taking 12 credit hours
- Part-time students taking 6 credit hours
- Full-time students graduating in 4 years
- Part-time students graduating in 6 years

Duplication

Four institutions in Virginia offer related PhD programs in business: Old Dominion University, the University of Virginia, Virginia Commonwealth University, and Virginia Tech.

George Mason’s proposed PhD in Business is unique to the Commonwealth of Virginia such that its core is focused on the skills and knowledge needed to be a faculty member in business—i.e., research, teaching, and writing—rather than on specific business knowledge.

Old Dominion University (ODU)

ODU offers a 57-58 credit PhD in Business Administration (CIP 52.0201) with four concentrations: Finance, Information Technology, Marketing, and Strategic Management (40 credits coursework plus dissertation).

Similarities

There are no similarities between ODU's required core and that of the proposed program.

However, the ODU concentration in Information Technology overlaps in content with the proposed program's concentration in Information Systems, specifically between the ODU courses on Knowledge Management (IT 892), and Information Systems Research (IT 800) and the GMU courses on IS (MIS 721) and Technology Research in IS (MIS 723). The ODU course in Supply Chain in e-business (IT 893) will have some overlap with the GMU course in Supply Chain Management (OM 731). Within the ODU Strategic Management concentration there will likely be overlap between the ODU courses on Organizational Theory (MGMT 835) and the GMU course on Strategic Management (MGMT 712).

Differences

The ODU program core does not include any of the faculty preparation courses that constitute the core of the proposed program.

University of Virginia (UVA)

UVA offers a PhD in Business Administration (CIP 52.0201) with three programs of study: Ethics, Entrepreneurship, and Leadership in Organizations. The program requires 48 credits of coursework plus a dissertation.

Similarities

There is one similarity between UVA's program and the proposed program. UVA's program requires a 3-credit course in research methods, which overlaps in content with the proposed program's 3-credit BUS 701: Professional Practicum and potentially also the 3-credit BUS 801: Field Research in Business, depending on the individual project.

The Leadership in Organizations Program of Study has some course overlap with both the proposed Organizational Behavior and Strategic Management concentrations, specifically between the UVA courses on Theories in Organizational Behavior (GBUS 9130) and Strategy (GBUS 9856) and the GMU courses on Organizational Behavior (MGMT 711) and Strategic Management (MGMT 712).

Differences

There is no professional practicum course at UVA. There is no course on Writing for Business PhD students at UVA. There are no courses dedicated to research projects at UVA, compared with three in the proposed program.

UVA offers nothing similar to the proposed program's Information Systems or Operations Management concentrations, and likewise, the proposed program does not offer anything similar to UVA's programs of study in Ethics of Entrepreneurship.

Virginia Commonwealth University (VCU)

VCU offers a 53-56 credit PhD in Business (CIP 52.0101) with three concentrations: Accounting, Information Systems, and Management.

Similarities

VCU's program includes a two-credit course on teaching and learning, which overlaps with the three-credit Professional Practicum course in the proposed program core.

In VCU's Information Systems concentration core there is a course on Philosophy of Science, which is also a topic to be covered in the Professional Practicum core course in the proposed program. The VCU Information Systems concentration also has six credits of research methods courses, specifically between the VCU course on Design Science Research and Methods (INFO 702) and the GMU course Professional Practicum (BUS 702).

The Management concentration at VCU also has some overlap in content with the Organizational Behavior concentration in the proposed program, specifically between the VCU course in Attitudes and Motivation (MGMT 750) and the GMU Seminar in Organizational Behavior (MGMT 711).

Differences

There is no course on Writing for Business PhD students at VCU, nor are there any courses dedicated to research projects as there are in the proposed program.

Virginia Polytechnic Institute and State University (VT)

VT offers a 90-credit PhD in Business (CIP 52.0101) with concentrations in Accounting, Information Technology, Finance, Hospitality and Tourism Management, Management, and Marketing.

Similarities

There are no similarities between VT's required cores (which are different for each concentration) and that of the proposed program.

Differences

VT does not offer a professional training/practicum course or a writing course. There is only one research project course at VT, compared with three in the proposed program.

The Virginia Tech PhD concentrations in Executive Business Research and Hospitality and Tourism Management are offered at the university's Falls Church instructional site.

Enrollments¹⁴	Fall 2013	Fall 2014	Fall 2015	Fall 2016	Fall 2017
Old Dominion University	58	57	57	48	52
University of Virginia	7	15	12	12	12
Virginia Commonwealth University	27	24	20	19	22
Virginia Tech	54	49	51	63	72
Degrees Awarded¹⁵	2013- 2014	2014- 2015	2015- 2016	2016- 2017	2017- 2018
Old Dominion University	5	11	10	0	9
University of Virginia	3	1	0	0	0
Virginia Commonwealth University	2	10	4	4	4
Virginia Tech	10	11	6	11	10

Projected Resource Needs for the Proposed Program

Resource Needs

George Mason University and the School of Business have the resources needed to initiate and sustain the proposed PhD in Business. The (non-departmentalized) School will have the faculty, staff, equipment, space and library resources to launch and maintain the proposed program. The proposed program allocates 1.0 FTE of instructional effort for every 9.0 FTE of enrollment. The proposed program will therefore require a total of .45 FTE of instructional effort to launch, rising to 1.25 FTE by the target year of 2023-2024.

Full-time Faculty

There are no faculty committed at 50% or more of their teaching load to the program.

Part-time Faculty

Nineteen faculty in the School of Business will teach core courses in the proposed program. One faculty member will teach in the program and also serve as program director.

The proposed PhD in Business will require .45 FTE in 2019-2020, rising to 1.25 FT in the target year.

Adjunct Faculty

No adjunct faculty will be required to launch or maintain the proposed program.

Classified Positions

¹⁴ State Council of Higher Education for Virginia (SCHEV). *Fall Headcount Enrollment by Race/Ethnicity, Gender and Program Detail*.

http://research.schev.edu/enrollment/E16_Report.asp. (Accessed September 18, 2018)

¹⁵ State Council of Higher Education for Virginia (SCHEV). *Completion, Program Detail C1.2*.

http://research.schev.edu/Completions/C1Level2_Report.asp. (Accessed September 13, 2018)

A faculty member currently employed by the School of Business will direct the proposed program. The program will require 0.20 FTE to launch and this level of effort will remain constant through the target year 2023-24. Salary for the faculty program director will be \$20,000 and benefits \$8,422.

An administrative assistant currently employed by the School of Business will support the proposed program. The program will require 0.25 FTE to launch and this level of effort will remain constant through the target year 2023-24. Salary for the administrative assistant will be \$8,750 and benefits \$3,685.

Equipment

No new equipment is required to launch or maintain the proposed program.

Library

New doctoral programs are allocated \$3,000 for library materials by the University Libraries. The library has an adequate collection to support the proposed degree program. Resources include journals and publications for business and management. As a member of the Virtual Library of Virginia (VIVA), on-line access to journals is also available.

Telecommunications

No new telecommunications are required to launch or maintain the proposed program.

Space

No new space is needed to initiate and sustain the proposed program. Office space will be available for the graduate assistants.

Other Resources

The School of Business will provide tuition remission for each graduate assistant. Tuition will be paid at the rate of \$10,900 each year. To advertise the proposed program, the School of Business will allocate \$5,000 toward an advertising campaign.

Resources Needs: Part A - D

Part A: Answer the following questions about general budget information.

- Has the institution submitted or will it submit an addendum budget request to cover one-time costs? Yes No
- Has the institution submitted or will it submit an addendum budget request to cover operating costs? Yes No
- Will there be any operating budget requests for this program that would exceed normal operating budget guidelines (for example, unusual faculty mix, faculty salaries, or resources)? Yes No
- Will each type of space for the proposed program be within projected guidelines? Yes No
- Will a capital outlay request in support of this program be forthcoming? Yes No

Part B: Fill in the number of FTE and other positions needed for the program

	Program Initiation Year 2019- 2020		Expected by Target Enrollment Year 2023- 2024	
	On-going and reallocated	Added (New)	Added (New)***	Total FTE positions
Full-time faculty FTE*	0.00	0.00	0.00	0.00
Part-time faculty FTE**	0.45	0.00	0.80	1.25
Adjunct faculty	0.00	0.00	0.00	0.00
Graduate assistants (HDCT)	4.00	0.00	12.00	16.00
Classified positions	0.45	0.00	0.00	0.45
TOTAL	4.90	0.00	12.80	17.70

Faculty dedicated to the program. **Faculty effort can be in the department or split with another unit. ***Added after initiation year.

Part C: Estimated resources to initiate and operate the program

	Program Initiation Year		Expected by Target Enrollment Year	
	2019- 2020		2023- 2024	
Full-time faculty	0.00	0.00	0.00	0.00
salaries	\$0	\$0	\$0	\$0
fringe benefits	\$0	\$0	\$0	\$0
Part-time faculty (faculty FTE split with unit(s))	0.45	0.00	0.80	1.25
salaries	\$45,000	\$0	\$72,000	\$117,000
fringe benefits	\$13,811	\$0	\$22,097	\$35,908
Adjunct faculty	0.00	0.00	0.00	0.00
salaries	\$0	\$0	\$0	\$0
fringe benefits	\$0	\$0	\$0	\$0
Graduate assistants	4.00	0.00	12.00	16.00
salaries	\$120,000	\$0	\$360,000	\$480,000
fringe benefits	\$22,816	\$0	\$68,448	\$91,264
Classified Positions	0.45	0.00	0.00	0.45
salaries	\$28,750	\$0	\$0	\$28,750
fringe benefits	\$12,107	\$0	\$0	\$12,107

Personnel cost				
salaries	\$193,750	\$0	\$432,000	\$625,750
fringe benefits	\$48,734	\$0	\$90,545	\$139,279
Total personnel cost	\$242,484	\$0	\$522,545	\$765,029
Equipment	\$0	\$0	\$0	\$0
Library	\$3,000	\$0	\$0	\$3,000
Telecommunication costs	\$0	\$0	\$0	\$0
Other costs	\$48,600	\$0	\$130,800	\$179,400
TOTAL	\$294,084	\$0	\$653,345	\$947,429

Part D: Certification Statement(s)

The institution will require additional state funding to initiate and sustain this program.

Yes _____
Signature of Chief Academic Officer

No _____
Signature of Chief Academic Officer

Please complete Items 1, 2, and 3 below.

1. Estimated \$\$ and funding source to initiate and operate the program.

Funding Source	Program initiation year 2019 - 2020	Target enrollment year 2023 - 2024
Reallocation within the department <i>(Note below the impact this will have within the department.)</i>	None	None
Reallocation within the school or college <i>(Note below the impact this will have within the school or college.)</i>	\$291,083	\$944,428
Reallocation within the institution <i>(Note below the impact this will have within the institution.)</i>	\$3,000	\$3,000
Other funding sources <i>(Specify and note if these are currently available or anticipated.)</i>	None	None

2. Statement of Impact/Funding Source(s). A separate detailed explanation of funding is required for each source used and a statement of impact on existing resources.

Reallocation within the school or college

The School of Business will reallocate resources to support the proposed program. Faculty teaching loads will be reallocated to support the proposed program. The reallocation of resources will have minimal impact on academic programs in the School of Business.

Reallocation within the institution

Faculty members from the Departments of Psychology, Sociology, Statistics, Economics, and Computer Science will teach restricted elective courses in the proposed program. Faculty who teach courses in these areas will have additional students in their courses as a result of the

proposed PhD in Business degree program. No adverse impact is anticipated as a result of these additional students in those classes.

The additional support (\$3,000) for a program-relevant collection from the University Libraries will be accommodated through a reallocation of resources. The university provides funding from resources designated for new graduate-level degree programs.

3. Secondary Certification.

If resources are reallocated from another unit to support this proposal, the institution will **not** subsequently request additional state funding to restore those resources for their original purpose.

Agree _____
Signature of Chief Academic Officer

Disagree _____
Signature of Chief Academic Officer

Appendix A – Sample Plans of Study

Organizational Behavior Concentration – Full Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	BUS 703: Research Project (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	MGMT 712: Seminar in Strategic Management (3 credits)
	MGMT 711: Seminar in Organizational Behavior (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 2	BUS 703: Research Project (3 credits)	MGMT 892: Special Topics in Management (3 credits)
	MGMT 892: Special Topics in Management (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 3	BUS 801: Field Research in Business (3 credits)	Minor (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
	Minor (3 credits)	BUS 998: Doctoral Dissertation Proposal (3 credits)
Year 4	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	9
Credit Hours – Year 1 – Spring Term	12
Credit Hours – Year 2 – Fall Term	9
Credit Hours – Year 2 – Spring Term	12
Credit Hours – Year 3 – Fall Term	9
Credit Hours – Year 3 – Spring Term	9
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
TOTAL CREDIT HOURS	72

Strategic Management Concentration – Full Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	BUS 703: Research Project (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	MGMT 712: Seminar in Strategic Management (3 credits)
	MGMT 711: Seminar in Organizational Behavior (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 2	BUS 703: Research Project (3 credits)	MGMT 892: Special Topics in Management (3 credits)
	MGMT 892: Special Topics in Management (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 3	BUS 801: Field Research in Business (3 credits)	Minor (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
	Minor (3 credits)	BUS 998: Doctoral Dissertation Proposal (3 credits)
Year 4	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	9
Credit Hours – Year 1 – Spring Term	12
Credit Hours – Year 2 – Fall Term	9
Credit Hours – Year 2 – Spring Term	12
Credit Hours – Year 3 – Fall Term	9
Credit Hours – Year 3 – Spring Term	9
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
TOTAL CREDIT HOURS	72

Information Systems Concentration – Full Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	BUS 703: Research Project (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	MIS 722: Seminar in Economics of IS (3 credits)
	MIS 721: Seminar in IS (1.5 credits)	Research Methods (3 credits)
	OM 721: Seminar in OM (1.5 credits)	Minor (3 credits)
Year 2	BUS 703: Research Project (3 credits)	MIS 892: Special Topics in IS (3 credits)
	MIS 723: Seminar in Technology Research in IS (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 3	BUS 801: Field Research in Business (3 credits)	Minor (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
	Minor (3 credits)	BUS 998: Doctoral Dissertation Proposal (3 credits)
Year 4	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	9
Credit Hours – Year 1 – Spring Term	12
Credit Hours – Year 2 – Fall Term	9
Credit Hours – Year 2 – Spring Term	12
Credit Hours – Year 3 – Fall Term	9
Credit Hours – Year 3 – Spring Term	9
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
TOTAL CREDIT HOURS	72

Operations Management Concentration – Full Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	BUS 703: Research Project (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	OM 731: Seminar in Supply Chain Management (3 credits)
	MIS 721: Seminar in IS (1.5 credits)	Research Methods (3 credits)
	OM 721: Seminar in OM (1.5 credits)	Minor (3 credits)
Year 2	BUS 703: Research Project (3 credits)	OM 893: Special Topics in Operations Management (3 credits)
	OM 732: Seminar in Innovation and New Product Development (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Research Methods (3 credits)
		Minor (3 credits)
Year 3	BUS 801: Field Research in Business (3 credits)	Minor (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
	Minor (3 credits)	BUS 998: Doctoral Dissertation Proposal (3 credits)
Year 4	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	9
Credit Hours – Year 1 – Spring Term	12
Credit Hours – Year 2 – Fall Term	9
Credit Hours – Year 2 – Spring Term	12
Credit Hours – Year 3 – Fall Term	9
Credit Hours – Year 3 – Spring Term	9
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
TOTAL CREDIT HOURS	72

Organizational Behavior Concentration – Part Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	MGMT 711: Seminar in Organizational Behavior (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	MGMT 712: Seminar in Strategic Management (3 credits)
Year 2	Research Methods (3 credits)	BUS 703: Research Project (3 credits)
	Minor (3 credits)	MGMT 892: Special Topics in Management (3 credits)
Year 3	BUS 703: Research Project (3 credits)	Research Methods (3 credits)
	MGMT 892: Special Topics in Management (3 credits)	Research Methods (3 credits)
Year 4	BUS 801: Field Research in Business (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
Year 5	BUS 998: Doctoral Dissertation Proposal (3 credits)	Minor (3 credits)
	Minor (3 credits)	Minor (3 credits)
Year 6	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	6
Credit Hours – Year 1 – Spring Term	6
Credit Hours – Year 2 – Fall Term	6
Credit Hours – Year 2 – Spring Term	6
Credit Hours – Year 3 – Fall Term	6
Credit Hours – Year 3 – Spring Term	6
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
Credit Hours – Year 5 – Fall Term	6
Credit Hours – Year 5 – Spring Term	6
Credit Hours – Year 6 – Fall Term	6
Credit Hours – Year 6 – Spring Term	6
TOTAL CREDIT HOURS	72

Strategic Management Concentration – Part Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	MGMT 711: Seminar in Organizational Behavior (3 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	MGMT 712: Seminar in Strategic Management (3 credits)
Year 2	Research Methods (3 credits)	BUS 703: Research Project (3 credits)
	Minor (3 credits)	MGMT 892: Special Topics in Management (3 credits)
Year 3	BUS 703: Research Project (3 credits)	Research Methods (3 credits)
	MGMT 892: Special Topics in Management (3 credits)	Research Methods (3 credits)
Year 4	BUS 801: Field Research in Business (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
Year 5	BUS 998: Doctoral Dissertation Proposal (3 credits)	Minor (3 credits)
	Minor (3 credits)	Minor (3 credits)
Year 6	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	6
Credit Hours – Year 1 – Spring Term	6
Credit Hours – Year 2 – Fall Term	6
Credit Hours – Year 2 – Spring Term	6
Credit Hours – Year 3 – Fall Term	6
Credit Hours – Year 3 – Spring Term	6
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
Credit Hours – Year 5 – Fall Term	6
Credit Hours – Year 5 – Spring Term	6
Credit Hours – Year 6 – Fall Term	6
Credit Hours – Year 6 – Spring Term	6
TOTAL CREDIT HOURS	72

Information Systems Concentration – Part Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	MIS 721: Seminar in IS (1.5 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	OM 721: Seminar in OM (1.5 credits)
		MIS 722: Seminar in Economics of IS (3 credits)
Year 2	Research Methods (3 credits)	BUS 703: Research Project (3 credits)
	Minor (3 credits)	MIS 723: Seminar in Technology Research in IS (3 credits)
Year 3	BUS 703: Research Project (3 credits)	Research Methods (3 credits)
	MIS 892: Special Topics in IS (3 credits)	Research Methods (3 credits)
Year 4	BUS 801: Field Research in Business (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
Year 5	BUS 998: Doctoral Dissertation Proposal (3 credits)	Minor (3 credits)
	Minor (3 credits)	Minor (3 credits)
Year 6	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	6
Credit Hours – Year 1 – Spring Term	6
Credit Hours – Year 2 – Fall Term	6
Credit Hours – Year 2 – Spring Term	6
Credit Hours – Year 3 – Fall Term	6
Credit Hours – Year 3 – Spring Term	6
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
Credit Hours – Year 5 – Fall Term	6
Credit Hours – Year 5 – Spring Term	6
Credit Hours – Year 6 – Fall Term	6
Credit Hours – Year 6 – Spring Term	6
TOTAL CREDIT HOURS	72

Operations Management Concentration – Part Time Students

Year	Fall Semester	Spring Semester
Year 1	BUS 701: Professional Practicum (3 credits)	MIS 721: Seminar in IS (1.5 credits)
	BUS 702: Writing for Business PhD Students (3 credits)	OM 721: Seminar in OM (1.5 credits)
		OM 731: Seminar in Supply Chain Management (3 credits)
Year 2	Research Methods (3 credits)	BUS 703: Research Project (3 credits)
	Minor (3 credits)	OM 732: Seminar in Innovation and New Product Development (3 credits)
Year 3	BUS 703: Research Project (3 credits)	Research Methods (3 credits)
	OM 893: Special Topics in Operations Management (3 credits)	Research Methods (3 credits)
Year 4	BUS 801: Field Research in Business (3 credits)	Research Methods (3 credits)
	Research Methods (3 credits)	Minor (3 credits)
Year 5	BUS 998: Doctoral Dissertation Proposal (3 credits)	Minor (3 credits)
	Minor (3 credits)	Minor (3 credits)
Year 6	BUS 999: Doctoral Dissertation Research (6 credits)	BUS 999: Doctoral Dissertation Research (6 credits)

Credit Hours – Year 1 – Fall Term	6
Credit Hours – Year 1 – Spring Term	6
Credit Hours – Year 2 – Fall Term	6
Credit Hours – Year 2 – Spring Term	6
Credit Hours – Year 3 – Fall Term	6
Credit Hours – Year 3 – Spring Term	6
Credit Hours – Year 4 – Fall Term	6
Credit Hours – Year 4 – Spring Term	6
Credit Hours – Year 5 – Fall Term	6
Credit Hours – Year 5 – Spring Term	6
Credit Hours – Year 6 – Fall Term	6
Credit Hours – Year 6 – Spring Term	6
TOTAL CREDIT HOURS	72

Appendix B – Course Descriptions

New courses are designated with an asterisk.

Core Courses

BUS 701: Professional Practicum (3 credits)*

This course is designed to teach the practice of teaching, research, and philosophy of science. Classroom teaching, business research and other professional responsibilities common to business academics will be covered. This course will also introduce students to tools for the philosophical analysis of science. Students will learn about issues in observation, experiment, and reasoning, questions about the aims of science, scientific change, and the relations between science and values.

BUS 702: Writing for Business PhD Students (3 credits)*

This course emphasizes a “learning by doing” approach to writing. It is run as a writing practicum with a focus on the procedural aspects of writing. Students will engage the writing process intensively and deliberately, both in and outside class. Students will read and evaluate different writings in business, providing evaluation and critique of them in the process of honing and refining their own writing skills. Students will develop strategies for writing regularly, for managing anxiety about writing, and developing critical, but constructive strategies of self-evaluation. Students will gain practice in different types of writing including research reports, scholarly journal articles, and research proposals. Students will read examples of the range of writings by business scholars, identifying persuasive argument, how to advance a claim and the productive use of evidence.

BUS 703: Research Project (3 credits)*

Student must complete a two-semester long research project on an approved topic under the guidance of a faculty advisor, and write a research paper that will be presented as a departmental seminar and be submitted to an academic journal. This course must be completed no later than the end of the fourth semester in the PhD program. 6 credits combined from taking this course twice will apply to the PhD degree.

BUS 801: Field Research in Business (3 credits)*

Students must complete a one-semester long independent study with their faculty advisor where they take the lead on a field research project. This course is more advanced than BUS 798: Research Project as the design of this course is such that the student is the project lead. This course will be ideally completed in the third year. The rationale behind this course is that the student takes the lead on gaining access to the problem to be solved. This could involve gaining access to collect primary data from a business or organization, acquiring historical data, or developing an analytical model. The goal is for the student to understand the research problem as it situated in practice. The deliverable for this course is not a finished paper. Deliverables could include, but are not limited to: progress in securing data access, development of analytical models, demonstration of data organization, culling valuable business contacts, and making applied presentations to business and academic audiences.

BUS 998: Doctoral Dissertation Proposal (1-6)*

Work on research proposal that forms basis for doctoral dissertation. Notes: Students must complete a minimum of 3 credits of BUS 998. May be repeated within the degree.

BUS 999: Doctoral Dissertation Research (1-6)*

Research on approved dissertation topic under direction of dissertation committee. Notes: Students must complete a minimum of 3 credits of BUS 999. May be repeated within the degree.

Concentration Courses

Some courses are used in multiple concentrations.

CS 811: Research Topics in Machine Learning and Inference (3 credits)

Presents unifying principles that underlie diverse methods, paradigms, and approaches to machine learning and inference. Reviews most known learning and inference systems, discusses strengths and limitations, and suggests most appropriate areas of application. Hands-on experience by experimenting with state-of-the-art learning and inference systems and working on projects tailored to research interests.

ECON 611: Microeconomic Theory (3 credits)

Covers theory of behavior of consumers, firms, and resource suppliers; theories of choice under risk and uncertainty; partial equilibrium analysis of competitive and noncompetitive markets; general equilibrium analysis; and welfare economics. Introduces capital theory.

ECON 637: Econometrics I (3 credits)

Techniques of estimating relationships between economic variables. Introduces multiple regression and problems associated with single equation model-autocorrelation, multicollinearity, and heteroscedasticity.

ECON 838: Econometrics II (3 credits)

Explores econometric models and simultaneous equation systems. Includes identifying parameters and least squares bias, alternative estimation methods, and block recursive systems.

MGMT 711: Seminar in Organizational Behavior (3 credits) *

This course is designed to expose doctoral students to a broad foundation in organizational behavior research.

MGMT 712: Seminar in Strategic Management (3 credits) *

This course is designed to expose doctoral students to a broad foundation in strategic management research.

MGMT 892: Special Topics in Management (3 credits, repeatable for different topics) *

Selected topics reflecting specialized areas in management. Content varies.

MIS 721: Seminar in IS (1.5 credits)*

This course is designed to expose doctoral students to academic research in information systems.

MIS 722: Seminar in Economics of IS (3 credits)*

This course is designed to expose doctoral students to a broad foundation in economics of information systems research.

MIS 723: Seminar in Technology Research in IS (3 credits)*

This course is designed to expose doctoral students to a broad foundation of technology in information systems research.

MIS 892: Special Topics in IS (3 credits, repeatable for different topics)*

Selected topics reflecting specialized areas in management. Content varies.

OM 721: Seminar in OM (1.5 credits)*

This course is designed to expose doctoral students to academic research in operations management.

OM 731: Seminar in Supply Chain Management (3 credits)*

This course is designed to expose doctoral students to a broad foundation in supply chain management research including theory, quantitative and empirical tools.

OM 732: Seminar in Innovation and New Product Development (3 credits)*

This course is designed to expose doctoral students to a broad foundation in innovation and new product development research including theory, quantitative and empirical tools.

OM 893: Special Topics in Operations Management (3 credits, repeatable for different topics)*

This course is designed to expose doctoral students to a specialized topic within the operations management field through theoretical, quantitative and empirical work in the topic area. Content varies.

OR 642: Integer Programming (3 credits)

Cutting plane and enumeration algorithms for solution of integer linear programs; bounding strategies and reformulation techniques; heuristic approaches to the solution of complex problems; knapsack problems, matching problems, set covering and partitioning problems; applications to problems in OR/MS, such as capital budgeting, facility location, political redistricting, engineering design, and scheduling.

OR 645: Stochastic Processes (3 credits)

Nonlinear optimization theory and techniques applicable to problems in engineering, economics, operations research, and management science. Covers convex sets and functions, optimality criteria and duality; algorithms for unconstrained minimization, including descent methods, conjugate directions, Newton-type and quasi-Newton methods; and algorithms for constrained optimization, including active set methods and penalty and barrier methods.

PSYC 611: Advanced Statistics (3 credits)

Integrates basic psychological statistics and measurement issues from advanced perspective. Lab work includes using computer packages for data handling and analyses.

PSYC 754: Quantitative Methods III: Psychological Applications of Regression Techniques (3 credits)

Reviews psychological applications of regression techniques in variety of contexts including experimental, field, and survey settings.

PSYC 756: Quantitative Methods IV: Multivariate Techniques in Psychology (3 credits)

Surveys multivariate statistical techniques as applied to psychological research. Emphasizes analysis of complex designs and interpretation of multivariate data analyses resulting from computer processing.

PSYC 892: Special Topics in Psychology (1-6 credits)

Selected topics reflecting specialized areas in psychology.

SOCI 620: Methods and Logic of Inquiry (3 credits)

Emphasizes gathering, interpreting, and evaluating scientific evidence. Covers logic of scientific inquiry, including the application of various research designs and data collection methods. Develops critical-thinking skills by using set of rules and logical criteria for evaluation of social science research. Focuses both on how results are obtained and disseminated via research reports.

SOCI 631: Survey Research (3 credits)

Introduces theory, method, and practice of survey research design and analysis. Students complete survey research project.

SOCI 634: Qualitative Research Methods (3 credits)

Examines basic research methods involving observational techniques and procedures used in description and analysis of patterns, configurations, ethos, eidos, structures, functions, and styles typical of whole societies and cultures. Emphasizes case studies, unobtrusive methods, participant observation, longterm residence, choices of observer status role, recording data, uses of technical equipment, key informants, interviewing techniques, and ethical considerations in employing such methods and procedures.

SOCI 655: Ethnography (3 credits)

Introduces ethnography in sociology to graduate students. Teaches techniques for collecting, analyzing and writing-up ethnographic materials. Considers some of the central methodological issues relevant to doing ethnography. Explores some of the critical ethical and political questions that arise within ethnographic research practice.

SOCI 670: New Media and Networks (3 credits)

Examines the internet and other new technologies from a sociological perspective. Focuses on how technologies mitigate or exacerbate-transform or reproduce-existing and new forms of inequality.

SOCI 730: Analytic Techniques of Social Research (3 credits)

Introduces multiple regression and causal analysis to sociological researchers, with a focus on obtaining and disseminating results. Moves from linear regression to the general linear model with several variables, its extensions, assumptions, and regression diagnostics. Examines the use of dummy variable and the analysis of interaction effects. Considers systems of equations and nonlinear outcomes.

STAT 525: Nonparametric Statistics and Categorical Data Analysis (3 credits)

Introduction to nonparametric methods and categorical data analysis. Topics include tests for one-sample, two-related samples, and two independent samples; concepts of nonparametric ANOVA; tests for proportions; chi-squared tests, log-linear models, and contingency tables; goodness-of-fit tests; correlation and association analysis; nonparametric regression including logistic and Poisson regression; and bootstrapping, jackknifing, and cross-validation.

STAT 526: Applied Regression Analysis (3 credits)

Introduces statistical modeling with a focus on regression. Topics include: Correlation, simple and multiple regression models, model fitting, variable selection, diagnostic tools, model validation, inference for regression parameters, and matrix forms for multiple regression. Additional topics covered include logistic regression and time series analysis with a focus on smoothing techniques and decomposition. A statistical software package is used extensively throughout the course.

STAT 554: Applied Statistics I (3 credits)

Application of basic statistical techniques. Focus is on the problem (data analysis) rather than on the theory. Topics include descriptive statistics; exploratory data analysis; sampling distributions; one- and two-sample tests and confidence intervals for means, medians, proportions, and variances; and goodness-of-fit tests. Normal theory is introduced first with discussion of what happens when assumptions break down. Alternative robust and nonparametric techniques are presented.

STAT 634: Case Studies in Data Analysis (3 credits)

Examination of a wide variety of case studies illustrating data-driven model building and statistical analysis. With each case study, various methods of data management, data presentation, statistical analysis, and report writing are compared.

STAT 654: Applied Statistics II (3 credits)

Overview of statistical principles of modeling. Topics include methods for analyzing data based on generalized linear models and diagnostic methods for assessing the assumptions of such models. Methods covered include multiple regression, analysis of variance, simultaneous inference, logistic response models, and hierarchical log linear models for contingency tables.

STAT 656: Regression Analysis (3 credits)

Simple and multiple linear regression, polynomial regression, general linear models, subset selection, step-wise regression, and model selection. Also covered are multicollinearity, diagnostics, and model building as well as the theory and practice of regression analysis.

STAT 652: Statistical Inference (3 credits)

Fundamental principles of estimation and hypothesis testing. Topics include limiting distributions and stochastic convergence, sufficient statistics, exponential families, statistical decision theory and optimality for point estimation, Bayesian methods, maximum likelihood, asymptotic results, interval estimation, optimal tests of statistical hypotheses, and likelihood ratio tests.

STAT 662: Multivariate Statistical Methods (3 credits)

Standard techniques of applied multivariate analysis. Topics include review of matrices, multivariate normal theory, principal components, canonical correlation, classification, factor analysis, clustering, and multidimensional scaling. Applications to data analytics. Computer implementation via a statistical package is an integral part of the course.

Appendix C – “Abbreviated CVs” for Faculty

Ioannis Bellos, PhD in Management, 2012, George Institute of Technology, Assistant Professor, School of Business. Specialization Area: operations management, innovative business models

Matthew Cronin, PhD in Industrial Administration, 2004, Carnegie Mellon University, Associate Professor, School of Business. Specialization Area: organizational behavior, collaboration and creativity

Sidhartha Das, PhD in Business Administration, 1987, University of Houston, Professor, School of Business. Specialization Area: operations management, technology and innovation

Cheryl Druehl, PhD in Business Administration, 2000, Stanford University, Associate Professor, School of Business. Specialization Area: operations management, product development, supply chain management

Amitava Dutta, PhD in Management, 1981, Purdue University, Professor, School of Business. Specialization Area: information systems, systems management

Eun Ju Jung, PhD in Business Information Systems, 2015, Michigan State University, Assistant Professor, School of Business. Specialization Area: information systems, crowdsourcing, social media

Richard Klimoski, PhD in Psychology, 1970, Purdue University, Professor, School of Business. Specialization Area: organizational behavior

Chi-Hyon Lee, Doctor of Business Administration, 2001, Boston University, Associate Professor, School of Business. Specialization Area: strategic management, information systems

Hun Lee, PhD in Business and Management, 1995, University of Maryland – College Park, Associate Professor, School of Business. Specialization Area: strategic management

Kumar Mehta, PhD in Business, 2002, University of Illinois at Chicago, Associate Professor, School of Business. Specialization Area: information systems

Nirup Menon, PhD in Management, 1997, University of Arizona, Associate Professor, School of Business. Specialization area: information systems

Mandy O’Neill, PhD in Business Administration, 2005, Stanford University, Associate Professor, School of Business. Specialization Area: organizational behavior, emotions, gender

Kevin Rockmann, PhD in Business Administration, 2004, University of Illinois at Urbana-Champaign, Professor, School of Business. Specialization Area: organizational behavior, negotiations

Pallab Sanyal, PhD in Business Administration, 2009, University of Minnesota, Associate Professor, School of Business. Specialization Area: information systems, information and decision sciences

Matt Theeke, PhD in Management, 2012, University of Texas at Austin, Associate Professor, School of Business. Specialization Area: strategic management

Sarah Wittman, PhD in Management, 2018, INSEAD Business School (Fontainebleau, France), Assistant Professor, School of Business. Specialization Area: organizational behavior

Jingyuan Yang, PhD in Information Technology, 2018, Rutgers, Assistant Professor, School of Business. Specialization Area: data mining, business intelligence.

Shun Ye, PhD in Information Systems, 2013, University of Maryland, College Park, Assistant Professor, School of Business. Specialization Area: information systems

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

ELECTIONS OF NEW TENURED FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Cheskin	Lawrence	1/10/2019

Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Nutrition and Food Studies (CHHS)

Note(s): Additional Title: Chair, Department of Nutrition and Food Studies

Green	Beverly C.	8/25/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: College of Education and Human Development

Rupp	Deborah	8/25/2019
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Psychology (CHSS)



Office of the Provost
 4400 University Drive, MSN 3A2
 Fairfax, Virginia 22030
 Phone: 703.993.8770; Fax: 703.993.8871

**Procedural Checklist for New Faculty
 Being appointed to Tenured (Without Term) Positions**

This form must be submitted, in hard copy, to the Provost Office by the Dean/Director immediately upon receipt of a signed offer letter.

Lawrence Cheskin, Professor and Chair

Faculty Member's Name and Title

CHHS/Department of Nutrition and Food Studies

Local Academic Unit

Reference checks have been conducted.

Sexual harassment prevention training has been scheduled for TBD.
Date

One-half page justification for appointment, to include a description of the benefit of this hire for the department, school, etc., as well as the rationale for selecting this candidate over others.

Dr. Cheskin is a research physician and clinician at Johns Hopkins University, working as a teaching and research faculty in the Hopkins Medical School and later in the School of Public Health. He is currently the Director of a Weight Management Center involved in patient care, research and clinical training. He holds medical degrees from research-intensive universities and he is active in numerous professional societies focused primarily on obesity, nutrition, clinical medicine and public health. He is interested in external and community relations and the importance of a diverse Department Advisory Board that engages all stakeholders. Dr. Cheskin stands out because his experience as a researcher and program director in administration is a strength, as is his professional network, teaching and public health services.

Germaine M. Louis

09/25/18

Dean/Director

Date



Office of the Provost
4400 University Drive, MSN 3A2
Fairfax, Virginia 22030
Phone: 703.993.8770; Fax: 703.993.8871

**Procedural Checklist for New Faculty
Being appointed to Tenured (Without Term) Positions**

This form must be submitted, in hard copy, to the Provost Office by the Dean/Director immediately upon receipt of a signed offer letter.

B. Christine Green, Professor

Faculty Member's Name and Title

College of Education and Human Development

Local Academic Unit

Reference checks have been conducted.

Sexual harassment prevention training has been scheduled for TBD
Date

One-half page justification for appointment, to include a description of the benefit of this hire for the department, school, etc., as well as the rationale for selecting this candidate over others.

Dr. B. Christine Green is a widely respected scholar and leader in the field of sport management who has a reputation for research and professional impact both nationally and internationally. She collaborates extensively with both colleagues and students, and her research appears in prestigious, top-tier journals and is published by prominent publishing houses. Dr. Green has led curricular revisions for three of four degrees at her current institution and is uniquely qualified to make linkages among the fields of sport, recreation, and tourism. She has demonstrated extensive service at the national and international levels and received the highest honor in the sport management field—the Earle F. Zeigler Award. She will undoubtedly enhance George Mason University's reputation, both domestically and globally, as a prominent R1 institution.

Mark R. Ginsberg, PhD

Dean/Director

June 18, 2018

Date



Office of the Provost
 4400 University Drive, MSN 3A2
 Fairfax, Virginia 22030
 Phone: 703.993.8770; Fax: 703.993.8871

**Procedural Checklist for New Faculty
 Being appointed to Tenured (Without Term) Positions**

This form must be submitted, in hard copy, to the Provost Office by the Dean/Director immediately upon receipt of a signed offer letter.

Deborah Rupp, Professor

Faculty Member's Name and Title

Psychology

Local Academic Unit

Reference checks have been conducted.

Sexual harassment prevention training has been scheduled for Fall 2019
 Date

One-half page justification for appointment, to include a description of the benefit of this hire for the department, school, etc., as well as the rationale for selecting this candidate over others.

Our industrial/organizational psychology program has been ranked in the top 10 programs for several years. Two years ago, we had two senior faculty depart in the same year. For a program with a total of 7 faculty, this was an enormous blow. We had the good fortune to recruit one of the leading scholars in the field, Deborah Rupp. Dr. Rupp received her PhD only 16 years ago (2002), but already occupies an endowed chair position at Purdue University (another top 10 I/O program), has served as the Society for Industrial and Organizational Psychology Representative to the United Nations, and has over 12,000 citations of her work. She is widely seen as *the* top scholar in the field. Hiring her has resolidified our I/O program's spot in the top 10.



 Dean/Director

9/12/18

 Date

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Abbaspour	Aiyoub	7/10/2018	1 year

Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

Alishetty	Suman	9/10/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Bioengineering (VSE)

Alnifie	Ghada	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Computer Science (VSE)

Alvarez	Elissa	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Music (CVPA)

Andre	Matthew	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Andreani III	Frank	8/25/2018	1 year

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Mathematical Science (COS)

Attie	Raphael	1/10/2019	1 year
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Physics and Astronomy (COS)

Avramovic	Ivan	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Computer Science (VSE)

Baddouh	M'bark	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Bagchi	Pramita	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Statistics (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Baldo	James	9/3/2018	3 years

Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Systems Engineering and Operations Research (VSE)

Note(s): Additional Title: Director of the Master of Science in Data Analytics Engineering Program

Bell	Tina	8/20/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Biology (COS)

Binning	David	6/25/2018	3 years
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

Note(s): Additional Title: VSE Director, Assessment and Accreditation

Bondok	Doaa	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

Burtch	Nathan R.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Geography and Geoinformation Science (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Carrier	Jason M.	8/25/2018	3 years

Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Art (CVPA)

Chalip	Laurence	8/25/2018	5 years
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Title: Term Professor

Classification: Term - Instructional

Local Academic Unit: College of Education and Human Development

Chang	Shanti E.	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

Chang	Po-Hao	5/14/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Computational and Data Sciences (COS)

Chiari	Ylenia	1/10/2019	< 3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Biology (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Davidson	Tracy K.	8/25/2018	2 years

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

Davis	Matthew	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: Director of the Alan Cheuse International Writers Center

Dawn	Karalee	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Arts Management (CVPA)

DelVecchio	Mark D.	8/6/2018	1 year
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Excellence in Command, Control, Communications, Computing, Intelligence and Cyber (VSE)

Deng	Ping	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Computer Science (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Dobson	Catherine M.	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Criminology, Law and Society (CHSS)

Eagle	Michael J.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Computational and Data Sciences (COS)

Falsetti	Anthony B.	8/25/2018	2 years
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Forensic Science Program (COS)

Ferguson	Daniel E.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: College of Education and Human Development

Fernandez	Lourdes	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: Assistant Director, Composition

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Fox	Keith M.	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Mathematical Science (COS)

Frye	Samuel	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Integrative Studies (CHSS)

Fyfe	Shannon E.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Philosophy (CHSS)

Ghimire	Nirmal J.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Physics and Astronomy (COS)

Gilaki	Mehdi	3/20/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Mechanical Engineering (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Gillam	Robert	8/25/2018	3 years

Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Music (CVPA)

Gilleaudeau	Geoffrey	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Gilman	Lisa M.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: English (CHSS)

Glaberman	Scott	8/25/2019	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Gorsuch	Neil M.	6/25/2018	3 years
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Title: Term Visiting Professor

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Gribko	Joana R.	8/28/2018	1 year

Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Excellence in Command, Control, Communications, Computing, Intelligence and Cyber (VSE)

Haas	Tanya	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

He	Song	7/10/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

Herin	Greta Ann	1/10/2019	1.5 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Neuroscience Program (COS)

Howard	Susan	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Integrative Studies (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Hu	Haiping	9/1/2018	1 year

Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Physics and Astronomy (COS)

Ipek	Yasemin	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Global Affairs Program (CHSS)

Irvin-Erickson	Yasemin	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Criminology, Law and Society (CHSS)

Janis	Mimsi S.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Theater (CVPA)

Ji	Wenying	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Jimenez Otero	Fernanda	8/6/2018	1 year

Title: Postdoctoral Research Fellow
Classification: Term - Postdoctoral
Local Academic Unit: College of Science

Jorgenson	Linn	7/25/2018	> 1 year
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Title: Term Associate Professor
Classification: Term - Instructional
Local Academic Unit: College of Education and Human Development

Kaiser	Karen R.	8/25/2018	1 year
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Title: Term Visiting Associate Professor
Classification: Term - Instructional
Local Academic Unit: College of Education and Human Development

Kennedy	William G.	8/25/2018	1 year
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Title: Term Associate Professor
Classification: Term - Instructional
Local Academic Unit: Computational and Data Sciences (COS)

Khan	Mohammad Ahsanuzzaman	10/1/2018	1 year
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Title: Postdoctoral Research Fellow
Classification: Term - Postdoctoral
Local Academic Unit: Office of Research Computing

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Khankan	Sarah	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Mathematical Science (COS)

Kim	Sujin	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: College of Education and Human Development

King	Michael A.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

King	Karen M.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

Komwa	Maction K.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Geography and Geoinformation Science (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Koutney	Colin	8/25/2018	1 year

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: School of Business

La Croix	Leslie	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: College of Education and Human Development

Lattanzi	Elisabeth K.	8/25/2018	3 years
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Mechanical Engineering (VSE)

Lazaroff	Kurt C.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Integrative Studies (CHSS)

Note(s): Additional Title: BIS Academic Services Director

Ledig	Robert H.	8/25/2018	3 years
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Title: Term Professor

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Lee	Juanita	8/25/2018	2 years

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

Leider	Robert	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Antonin Scalia Law School

Lin	Yi-Shen	9/1/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Physics and Astronomy (COS)

Love	Jack	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Mathematical Science (COS)

Mainkar	Avinash V.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Mathis	Sara M.	6/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Communication (CHSS)

Note(s): Additional Title: Basic Course Coordinator

McCloskey	Laura	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: History and Art History (CHSS)

McDermott	Michael W.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Art (CVPA)

McDonald	Ryan	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Mink	Phillip	8/25/2018	5 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

Note(s):

This position is split between the School of Business and the Schar School of Policy and Government.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Mitchell	Mark A.	5/1/2018	2 years

Title: Research Associate Professor

Classification: Term - Research

Local Academic Unit: Communication (CHSS)

Mukherjee	Biswarup	7/25/2018	1 year
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Bioengineering (VSE)

Mulcahy	Kathleen G.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Music (CVPA)

Neary	Michael A.	1/10/2019	> 2 years
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Computer Science (VSE)

O'Connor	Parker S.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Orlando	Benjamin D.	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Osborn-Harrison	Denise G.	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Health Administration and Policy (CHHS)

Note(s): Additional Title: MHA Coordinator

OSterweil	Eric	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Computer Science (VSE)

Park	Noseong	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Applied Information Technology (VSE)

Paul	Elizabeth	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Penukonda	Vaibhav	8/25/2018	1 year

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Biomedical Sciences Program (COS)

Pettibon	Audrey S.	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Prawat	Theodore R.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Computer Game Design (CVPA)

Rehr	David K.	8/25/2018	1 year
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Title: Research Professor

Classification: Term - Research

Local Academic Unit: Schar School of Policy and Government

Rejzer	Michael	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Biomedical Sciences Program (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Ren	Hang	8/25/2018	3 years

Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: School of Business

Roberts	Kathleen R.	8/25/2018	1 year
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: School of Business

Rodrigo	Welikala Withanage Shanaka	8/17/2018	1 year
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Bioengineering (VSE)

Rosenfeld	Christine	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Geography and Geoinformation Science (COS)

Routh	Douglas R.	6/4/2018	1 year
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Roy	Pritha	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Chemistry and Biochemistry (COS)

Salerno	Jennifer L.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Schneider	Edwin	5/25/2018	< 1 year
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Title: Research Professor

Classification: Term - Research

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Shadur	Julia M.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Integrative Studies (CHSS)

Shin	Chul-Su	6/10/2017	1 year
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Silver	Blake R.	8/25/2018	3 years

Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Sociology and Anthropology (CHSS)

Note(s):

Dr. Silver also serves in an administrative position as Director, Data Analytics Assessment, Honors College.

Sivigny	Debra K.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Theater (CVPA)

Sleeter	Nathan M.	8/20/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: History and Art History (CHSS)

Steen	Bweikia T.	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: College of Education and Human Development

Stroiney	Debra	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Sweeney	Amykate	8/25/2018	1 year

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Communication (CHSS)

Note(s): Additional Title: Journalism Program Coordinator

Tan	Xiaoyan	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Chemistry and Biochemistry (COS)

Tecuatl Tolama	Carolina	8/20/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Bioengineering (VSE)

Thomas	Glenda W.	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

Ugarte	Maura	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Film & Video Studies (CVPA)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Valderrama	Diego	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Vartanian	Thomas P.	8/25/2018	3 years
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Title: Term Professor

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

Veneziano	Remi	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Bioengineering (VSE)

Wessels	Konrad	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Geography and Geoinformation Science (COS)

White	Adam J.	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Wilhelm	Gregg	5/10/2018	> 11 year

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: Director, Creative Writing

Wooten	Courtney A.	8/25/2018	3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: Director of Composition

Yagatich	William A.	5/10/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Communication (CHSS)

Yamanaka	Aoi	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Integrative Studies (CHSS)

Note(s): Additional Title: Associate Director, Academic Services

Yao	Andy	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Yi	Crystal	8/25/2018	1 year

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: Biomedical Sciences Program (COS)

Yu	Lap Fai	1/10/2019	> 3 years
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Title: Assistant Professor

Classification: Tenure Track - Instructional

Local Academic Unit: Computer Science (VSE)

Zach	Andrea	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Modern and Classical Languages (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINSTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Abaunza-Mathes	Margarita M.	7/11/2018

Title: Associate Registrar

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

Abramowicz	Alexander	7/18/2018
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Title: Psychology Intern

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

Alter	Kathryn A.	7/9/2018
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Title: Overdose Detection Mapping Application Program Manager

Classification: At will - Admin/Professional

Local Academic Unit: Criminology, Law and Society (CHSS)

Anthes	Daniel W.	3/25/2018
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Title: Director, Technology Services

Classification: At will - Admin/Professional

Local Academic Unit: University Life

Bailey	Vandy	8/6/2018
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Title: Assistant Dean/Director, Diversity and Inclusion

Classification: At will - Admin/Professional

Local Academic Unit: Diversity, Inclusion and Multicultural Education (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINSTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Bar	Brain D.	8/10/2018

Title: Assistant Director, Career Development

Classification: At will - Admin/Professional

Local Academic Unit: Schar School of Policy and Government

Barber	Christian J.	9/3/2017
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Title: Assistant Director, Residence Life

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Barese	Eric	7/10/2018
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Title: Associate Director, Grants and Coporate Relations

Classification: At will - Admin/Professional

Local Academic Unit: School of Business

Beckman	Mason	6/4/2018
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Title: Assistant Coach, Wrestling

Classification: At will - Admin/Professional

Local Academic Unit: Intercollegiate Athletics

Beeson	Charles J.	6/10/2018
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Title: Deputy Director/Chief of Staff

Classification: At will - Admin/Professional

Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Brown-Rolle	Tomeka S.	8/25/2018

Title: Clinical Placement Coordinator
Classification: At will - Admin/Professional
Local Academic Unit: Nursing (CHHS)

Bryant	Valentino	7/30/2018
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Title: Director of Advancement, Honors College
Classification: At will - Admin/Professional
Local Academic Unit: Advancement and Alumni Relations

Note(s): This is a split appointment with the Honors College.

Bryant	Adrienne	7/10/2018
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Title: Programming Manager
Classification: At will - Admin/Professional
Local Academic Unit: College of Visual and Performing Arts

Bychkovska	Tetyana	5/16/2018
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Title: Writing Center ESL Specialist
Classification: At will - Admin/Professional
Local Academic Unit: English (CHSS)

Carmack	Stephanie	9/19/2018
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Title: Assistant Director, Research Operations
Classification: At will - Admin/Professional
Local Academic Unit: Adaptive Systems and Brain Body Interactions (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Carr	Thomas H.	6/10/2018

Title: Executive Director

Classification: At will - Admin/Professional

Local Academic Unit: Criminology, Law and Society (CHSS)

Carter	Ethan	7/10/2018
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Title: Associate Director, Programs, Well-Being, and Assessment

Classification: At will - Admin/Professional

Local Academic Unit: Mason Recreation (UL)

Charney	Ari	6/18/2018
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Title: Associate Director, Research and Prospect Management

Classification: At will - Admin/Professional

Local Academic Unit: Advancement and Alumni Relations

Cobb	Karen A.	6/25/2018
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Title: Director, Student Research and Internships

Classification: At will - Admin/Professional

Local Academic Unit: College of Science

Comen	Corey P.	5/10/2018
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Title: Investigative Support Center Deputy Program Manager

Classification: At will - Admin/Professional

Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Corcoran	Kathleen M.	7/9/2018

Title: Director, Communications

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

Eiseman	Phil D.	8/13/2018
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Title: Psychologist

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

Fortune	Lydell	8/25/2018
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Title: Director for HR Services

Classification: At will - Admin/Professional

Local Academic Unit: University Life

Good	Silvana	7/18/2018
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Title: Psychology Intern

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

Hager	Justin	4/1/2018
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Title: Assistant Director, Admissions and Diversity Services

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINSTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Hartman	Shirley	7/1/2018

Title: Director of Advancement

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Hilker-Balkissoon	Kerin A.	4/30/2018
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Title: Director, Educational and Career Pathways

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

Holland	Christopher	7/30/2018
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Title: Assistant Dean/Chief Housing Office

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Horan	Caitlin E.	5/25/2018
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Title: Director, Graduate Academic Services

Classification: At will - Admin/Professional

Local Academic Unit: School of Business

Huffman	Sabrina A.	4/10/2018
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Title: Director, Admissions

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Jackson	Andrina	6/10/2018

Title: Interim Associate Director, Special Diversity Initiatives

Classification: At will - Admin/Professional

Local Academic Unit: University Life

Kalim	Geraldine	6/25/2018
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Title: Reference and Faculty Services Librarian

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

Kierig	Andrew	5/21/2018
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Title: Digital Publishing Lead

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Kim	Kelsey	10/15/2018
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Title: Project Archivist

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Leonato	Kristin P.	6/12/2018
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Title: Associate Director, Strategic Initiatives

Classification: At will - Admin/Professional

Local Academic Unit: University Career Services (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Lewis	Jocelyn A.	8/25/2018

Title: Head, Resource Acquisition

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Livingston	Karen	7/23/2018
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Title: Associate Director, Entrepreneurship Programs

Classification: At will - Admin/Professional

Local Academic Unit: Administrative Offices Other

Lynch	Creston	7/24/2018
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Title: Associate Dean

Classification: At will - Admin/Professional

Local Academic Unit: University Life

Mackenzie	Stu	5/10/2018
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Title: CINA Science Manager

Classification: At will - Admin/Professional

Local Academic Unit: CINA Center for Excellence (Provost)

MacNeil	Bradly	8/27/2018
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Title: Senior Associate Director

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
McGinn	John G.	6/10/2018

Title: Executive Director, Government Contracting

Classification: At will - Admin/Professional

Local Academic Unit: School of Business

Note(s): Additional Title: Development Director, Proposed Institute for Government Contracting

Nooney	Paul	9/10/2018
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Title: Associate Director of Student Services

Classification: At will - Admin/Professional

Local Academic Unit: Schar School of Policy and Government

Ramirez-Gaston	Carolina I.	7/16/2018
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Title: Manager, Industry Advising and Employer Development

Classification: At will - Admin/Professional

Local Academic Unit: University Career Services (UL)

Sarma	Jayshree	5/10/2018
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Title: Director of Research Computing

Classification: At will - Admin/Professional

Local Academic Unit: Office of Research Computing

Sartorius	Jessica L.	4/16/2018
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Title: Director, Master of Science in Law Program

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Scherer	Jacqueline A.	4/10/2018

Title: GMU HIDTA Program Coordinator

Classification: At will - Admin/Professional

Local Academic Unit: Criminology, Law and Society (CHSS)

Schmitt	Kaitlyn	7/2/2018
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Title: Assistant Director, Student Involvement for Programming

Classification: At will - Admin/Professional

Local Academic Unit: Student Involvement (UL)

Scott	Olivia	8/13/2018
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Title: Associate Director, Center for Economic Education

Classification: At will - Admin/Professional

Local Academic Unit: Economics (CHSS)

Shumadine	Kimberly	8/25/2018
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Title: Associate Director of Enrollment Central

Classification: At will - Admin/Professional

Local Academic Unit: Enrollment Central (Provost)

Smith	Cassandra D.	7/11/2018
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Title: Coordinator, Off-Campus Student Services

Classification: At will - Admin/Professional

Local Academic Unit: University Life

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINSTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Smith	Kareema M.	9/25/2018

Title: Director of Student Success
Classification: At will - Admin/Professional
Local Academic Unit: Honors College

Spring	Christina	7/17/2018
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Title: Major Gifts Officer
Classification: At will - Admin/Professional
Local Academic Unit: School of Business

Vigon	Derek B.	8/8/2018
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Title: Psychologist
Classification: At will - Admin/Professional
Local Academic Unit: Counseling and Psychological Services (UL)

Werhane	Stephanie T.	8/10/2018
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Title: Director, Information Technology And Cybersecurity
Classification: At will - Admin/Professional
Local Academic Unit: College of Education and Human Development

Wheeler	John J.	7/1/2018
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Title: Free Speech Clinic Senior Fellow
Classification: At will - Admin/Professional
Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT OF ADMINISTRATIVE AND PROFESSIONAL FACULTY

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>
Witt	Paula J.	9/4/2018

Title: Director, Judicial Education
Classification: At will - Admin/Professional
Local Academic Unit: Antonin Scalia Law School

Xiong	Pheng	8/20/2018
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Title: Associate Registrar, Catalog and Scheduling
Classification: At will - Admin/Professional
Local Academic Unit: Office of the Registrar

Xisto	Andrea	7/18/2018
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Title: Psychology Intern
Classification: At will - Admin/Professional
Local Academic Unit: Counseling and Psychological Services (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

APPOINTMENT/REAPPOINTMENT OF DEANS/DIRECTORS AND DEPARTMENT CHAIRS/SCHOOL DIRECTORS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Best	Amy	8/25/2018	4 years

Title: Department Chair

Local Academic Unit: Sociology and Anthropology (CHSS)

Burr	Zofia	6/25/2018	5 years
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Title: Dean

Local Academic Unit: Honors College

Gewa	Constance	8/25/2018	1 year
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Title: Interim Department Chair

Local Academic Unit: Nutrition and Food Studies (CHHS)

Ihara	Emily	5/25/2018	1 year
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Title: Interim Department Chair

Local Academic Unit: Social Work (CHHS)

Kinser	Jason M.	8/25/2018	1 year
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Title: Interim Department Chair

Local Academic Unit: Computational and Data Sciences (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

**APPOINTMENT/REAPPOINTMENT OF DEANS/DIRECTORS
AND DEPARTMENT CHAIRS/SCHOOL DIRECTORS**

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Maddox	Peggy J.	5/25/2018	3 years

Title: Department Chair

Local Academic Unit: Health Administration and Policy (CHHS)

Note(s): Appointment revised to a 12 month position.

Urban	Carol Q.	6/25/2018	4 years
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Title: Director

Local Academic Unit: Nursing (CHHS)

Weiler	Robert M.	8/25/2018	4 years
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Title: Department Chair

Local Academic Unit: Global and Community Health (CHHS)

Note(s): This is a chair appointment for four years.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Aistars	Sandra	8/25/2018	5 years

Title: Clinical Assistant Professor
Classification: Instructional
Local Academic Unit: Antonin Scalia Law School

Asen	Sheryl	8/25/2018	1 year
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Title: Term Assistant Professor
Classification: Instructional
Local Academic Unit: College of Education and Human Development

Baker	Sarah	6/25/2018	1 year
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Title: Research Associate (Instructor)
Classification: Instructional
Local Academic Unit: English (CHSS)

Birsa	Laura M.	7/14/2018	1 year
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Title: Research Associate (Instructor)
Classification: Research
Local Academic Unit: Environmental Science and Policy (COS)

Bono	John	8/25/2018	2 years
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Title: Term Assistant Professor
Classification: Instructional
Local Academic Unit: Applied Information Technology (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Brouse	Peggy	8/25/2018	2 years

Title: Term Professor

Classification: Instructional

Local Academic Unit: Systems Engineering and Operations Research (VSE)

Brown	Daniel L.	8/25/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Collision Safety and Analysis (COS)

Calvert	Valerie	5/25/2018	3 years
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Center for Applied Proteomics and Molecular Medicine (COS)

Carney	Jennifer M.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Cash	Benjamin A.	6/15/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Casserly	Charles J.	8/25/2018	1 year

Title: Term Instructor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Note(s): Additional Title: Executive in Residence

Chen	Liang	7/13/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Chou	Joyce Hui-Yun	6/10/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Clemons	Thomas M.	8/25/2018	3 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Systems Engineering and Operations Research (VSE)

Cook	John Frederick O.	1/25/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Communication (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
De Jong	Elisabeth	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Nutrition and Food Studies (CHHS)

Debus-Sherill	Sara A.	3/25/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Criminology, Law and Society (CHSS)

Deitz	Robert L.	8/25/2018	2 years
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Title: Term Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Dhokai	Niyati S.	6/25/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: College of Visual and Performing Arts

Dobolyi	Kinga	8/25/2018	2 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Computer Science (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Doty	Brian	2/10/2018	< 1 year

Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Douglas	Kevin R.	8/25/2018	2 years
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Title: Term Visiting Assistant Professor

Classification: Instructional

Local Academic Unit: Antonin Scalia Law School

Drake Patrick	Jennifer	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Driscoll	David R.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Duke	Jodi	6/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Dunaway	Sean J.	8/25/2018	1 year

Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Eckley	Douglas A.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Mathematical Science (COS)

Edkins	Teresa	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

El-Shazli	Heba F.	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Erfani	Ehsan	8/25/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Espino	Maggie E.	8/25/2018	1 year

Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Farrell	Peter J.	6/25/2018	3 years
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: Applied Information Technology (VSE)

Fitzpatrick	Brian J.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Folan	Kerry	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Gafurov	Boris	12/20/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Ginsburg	Douglas H.	6/25/2018	5 years

Title: Term Professor

Classification: Instructional

Local Academic Unit: Antonin Scalia Law School

Goldenthal	Ariel	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Graham	Robert L.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Guo	Zhichang	6/15/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Habib	Anna S.	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: INTO Mason Course Coordinator, EAP 507 & 508

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Hao	Xianjun	2/10/2018	1 year

Title: Research Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Harries	Emma	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Haspel, Jr.	Donald P.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Hayden	Michael V.	8/25/2018	3 years
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Title: Distinguished Visiting Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Holton	Anne	6/25/2018	1 year
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Title: Term Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Note(s): Additional Title: Senior Fellow, Center for Education Policy and Evaluation

This position is split the Schar School of Policy and Government and the College of Education and Human Development.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Horak	Anne K.	8/25/2018	1 year

Title: Project Director

Classification: Research

Local Academic Unit: College of Education and Human Development

Howell	William R.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Hoy	Virginia A.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: English (CHSS)

Hoyle	Stephen	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Huang	June	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Music (CVPA)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Johnson	Elizabeth D.	8/25/2018	3 years

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Statistics (VSE)

Johnson	Tyrel James	7/18/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Physics and Astronomy (COS)

Jones	Christie	6/25/2018	< 1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: School of Business

Note(s): Additional Title: Education Program Manager

Kelley	Owen A.	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Kilkenny	John	6/25/2018	3 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Music (CVPA)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Killiany	Joseph W.	8/25/2018	1 year

Title: Term Instructor

Classification: Instructional

Local Academic Unit: English (CHSS)

Kim	Esther H.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Kirsch	Jane C.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Note(s): Additional Title: Senior Course Coordinator, Academic English

Kohn	Ellen M.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Kolbe	Patrick V.	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Kosoglu	Laura	8/25/2018	3 years

Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Civil, Environmental and Infrastructure Engineering (VSE)

Kozumplik	Thomas	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Kraus	Amanda L.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Film & Video Studies (CVPA)

Krishnamurthy	Venkataram	6/25/2018	1 year
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Title: Research Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Krout	Linda	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Kwiatkowski	John	6/10/2018	1 year

Title: Research Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Lebowitz	Josiah T.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Computer Game Design (CVPA)

Lewis	Amy L.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Liberatore	Stephanie L.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Lilley	Timothy Patrick	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Lin	Shih-Chao	9/1/2018	1 year

Title: Term Professor

Classification: Research

Local Academic Unit: National Center for Biodefense and Infectious Diseases (COS)

Liu	Zhong	6/10/2018	1 year
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Title: Term Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Lyons	Michael X.	8/25/2018	3 years
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: Applied Information Technology (VSE)

Mack	Marissa C.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Note(s): Additional Title: INTO Mason Assistant Course Liaison, ENGH 121/122/100

Madison	Sorina O.	8/25/2018	2 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Health Administration and Policy (CHHS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Manganello	Julia V.	6/15/2018	1 year

Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Marx	Lawrence	6/15/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Mathur	Divita	6/10/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: College of Science

McCamish	Troy D.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

McCaughey	Patricia	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Meier	Robert R.	4/10/2018	1 year

Title: Research Professor

Classification: Research

Local Academic Unit: Physics and Astronomy (COS)

Messier	Jennifer A.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Miller	Laura	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Note(s): Additional Title: Course Coordinator, Undergraduate International Year One (Pathways)

Mitchell	Jonathan	6/10/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Moore	Patrick J.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Morikawa	Riki Y.	8/25/2018	3 years

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Applied Information Technology (VSE)

Musfeldt	Scott T.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Note(s): Additional Title: Associate Coordinator, Academic English

Namubiru	Esther	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Nayak	Chinmaya	5/25/2018	1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Physics and Astronomy (COS)

Nguyen	Quyen	6/10/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Nicogossian	Arnauld E.	6/25/2018	1 year

Title: Distinguished Research Professor

Classification: Research

Local Academic Unit: Schar School of Policy and Government

Note(s): Additional Title: Director, Center for the Study of International Medical Policies and Practices

Nord	Julia Ann	6/25/2018	3 years
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Title: Term Professor

Classification: Instructional

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Oetjen	Cheryl A.	5/25/2018	> 2 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Nursing (CHHS)

Note(s): Additional Title: Assistant Dean, MSN and DNP Programs

Olmo	Valerie N.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Biology (COS)

Paez	Bonny B.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Pandula	Shyam Prakash	8/25/2018	3 years

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Electrical and Computer Engineering (VSE)

Note(s): Additional Title: Director, MS Program in Telecommunications

Park	Kristy Lee	8/25/2018	3 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Park	Chung-Kyu	9/25/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Collision Safety and Analysis (COS)

Patnaik	Anurag	8/7/2018	> 1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: National Center for Biodefense and Infectious Diseases (COS)

Pearlstein	Steven	8/25/2019	3 years
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Title: Clarence J. Robinson Professor

Classification: Instructional

Local Academic Unit: Office of the Provost

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Photos	Lisa E.	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Pi	Daniel	8/25/2018	1 year
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Title: Term Visiting Assistant Professor

Classification: Instructional

Local Academic Unit: Antonin Scalia Law School

Prescott	David W.	7/25/2018	> 1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Physics and Astronomy (COS)

Protopsaltis	Spiros	6/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Rafatirad	Setareh	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Applied Information Technology (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Ramezani	Niloofer	8/25/2018	3 years

Title: Term Assistant Professor
Classification: Instructional
Local Academic Unit: Statistics (VSE)

Ramsdell	Justin	8/25/2018	1 year
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Title: Term Assistant Professor
Classification: Instructional
Local Academic Unit: Psychology (CHSS)

Randhawa	Karmjot	4/3/2018	1 year
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Title: Research Associate (Instructor)
Classification: Research
Local Academic Unit: Communication (CHSS)

Ready	Psyche Z.	8/25/2018	1 year
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Title: Term Instructor
Classification: Instructional
Local Academic Unit: English (CHSS)

Reichert	Rudolf	9/15/2018	1 year
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Title: Research Assistant Professor
Classification: Research
Local Academic Unit: Collision Safety and Analysis (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Reynolds	Colleen	8/25/2018	1 year

Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: School of Business

Richardson	Mary	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Note(s): Additional Title: Course Coordinator, EAP

Ross	Shani E.	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Bioengineering (VSE)

Rottenberg	Lori A.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Rudnicki	Mark	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Russell	Katherine E.	8/25/2018	3 years

Title: Term Instructor

Classification: Instructional

Local Academic Unit: Computer Science (VSE)

Sanchez	Deborah M.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Savage	James E.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Scolaro	Margaret J.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: English (CHSS)

Shanholtz	Spencer A.	1/22/2018	> 1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Schar School of Policy and Government

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Shen	Suhung	6/10/2018	1 year

Title: Research Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Shin	Chul-Su	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Shukla	Ravi	6/25/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Simmons	Noele K.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Skipper	Katherine A.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Smith	Michael P.	8/25/2018	1 year

Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Smith	Robert G.	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

Smith	Cynthia	8/25/2018	1 year
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Snyder	Mark	8/25/2018	5 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Computer Science (VSE)

Sorvillo	Sheri N.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Spooner	Daniel	2/1/2018	1 year

Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Environmental Science and Policy (COS)

Srikantia	Jessica	8/25/2018	3 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Stabile	Bonnie B.	8/25/2018	2 years
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Schar School of Policy and Government

Note(s): Additional Title: Director, Master of Public Policy Program

Stafford	Richard T.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: Honors College

Steadman	Sarah B.	8/25/2018	1 year
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Title: Term Instructor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Still	Amanda N.	8/25/2018	1 year

Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Center for Applied Proteomics and Molecular Medicine (COS)

Stocker	Anton	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Stout	John	6/10/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Streckfus-Green	Heather	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: English (CHSS)

Sturrock	Alan	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Tahan	Fadi	9/15/2018	1 year

Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Collision Safety and Analysis (COS)

Tang	Junmei	5/25/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Tian	Qing	8/25/2018	1 year
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Title: Assistant Professor

Classification: Instructional

Local Academic Unit: Computational and Data Sciences (COS)

Tong	Daniel Q.	5/25/2018	1 year
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Title: Research Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Trenary	Laurie L.	4/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Ullah	Aman	2/10/2018	< 1 year

Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Systems Biology (COS)

Urban	Carol Q.	6/25/2018	4 years
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Title: Term Associate Professor

Classification: Admin/Professional

Local Academic Unit: Nursing (CHHS)

Note(s): Additional Title: Director, School of Nursing/Associate Dean for Practice and Strategic Initiatives

van der Ham	Joris	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Velauthapillai	Balendran	6/10/2018	1 year
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Title: Research Associate (Instructor)

Classification: Research

Local Academic Unit: Earth Observing and Space Research (COS)

Walsh	Joseph V.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Music/Theater (CVPA)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Wang	Leyu	9/25/2018	1 year

Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Collision Safety and Analysis (COS)

Wang	Binyu	6/10/2018	1 year
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Weinstein	Aimee L.	8/25/2018	1 year
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: INTO Mason (Provost)

Note(s): Additional Title: Academic Advisor, Graduate International Pathways

Westcott	Stephanie	9/18/2018	3 months
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Title: Research Assistant Professor

Classification: Research

Local Academic Unit: History and Art History (CHSS)

White	Jason B.	8/25/2018	3 years
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Title: Term Associate Professor

Classification: Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Wilde	Judith	8/25/2018	1 year

Title: Term Professor

Classification: Instructional

Local Academic Unit: Schar School of Policy and Government

Note(s): Additional Title: Chief Operating Officer

Winston	Thomas G.	8/25/2018	3 years
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Title: Term Assistant Professor

Classification: Instructional

Local Academic Unit: Applied Information Technology (VSE)

Wulfkuhle	Julia	5/25/2018	3 years
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Title: Research Professor

Classification: Research

Local Academic Unit: Center for Applied Proteomics and Molecular Medicine (COS)

Yang	Wenli	5/25/2018	1 year
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Title: Research Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

You	Young-Ok	8/25/2018	1 year
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Title: Assistant Professor

Classification: Instructional

Local Academic Unit: Chemistry and Biochemistry (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

RENEWALS AND REAPPOINTMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>EFFECTIVE DATE</u>	<u>APPT LENGTH</u>
Yu	Eugene G.	5/10/2018	1 year

Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Spatial Information Science and Systems (COS)

Zaidi	Syed Abbas	8/25/2018	3 years
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Title: Term Professor

Classification: Instructional

Local Academic Unit: Systems Engineering and Operations Research (VSE)

Zhang	Zhe	12/1/2017	< 1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Electrical and Computer Engineering (VSE)

Zhang	Zhe	8/1/2018	< 1 year
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Title: Postdoctoral Research Fellow

Classification: Postdoctoral

Local Academic Unit: Electrical and Computer Engineering (VSE)

Zhou	Weidong	9/25/2018	1 year
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Title: Research Associate Professor

Classification: Research

Local Academic Unit: Center for Applied Proteomics and Molecular Medicine (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Adams	Jennifer M.	Resignation	04/30/2018

Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Addy	Laura K.	Resignation	12/20/2017
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Title: Certified Athletic Trainer

Classification: At will - Admin/Professional

Local Academic Unit: Intercollegiate Athletics

Agbeshie-Noye	Isaac E.	Resignation	09/05/2018
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Title: Director, Orientation and Family Programs and Services

Classification: At will - Admin/Professional

Local Academic Unit: Orientation and Family Programs and Services (UL)

Akerlof	Karen	Contract expiration	08/24/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Communication (CHSS)

Altshuler	Eric L.	Resignation	01/09/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Arminio	Jan L.	Retirement	05/24/2018

Title: Director

Classification: Tenured (without term) - Instructional

Local Academic Unit: Higher Education Program (CHSS)

Balint	Peter J.	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Schar School of Policy and Government

Barblan	Matthew T.	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

Bartush	Valerie	Resignation	07/26/2018
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Title: Academic Student Advisor

Classification: At will - Admin/Professional

Local Academic Unit: College of Health and Human Services

Brady	Stacie	Resignation	08/26/2018
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Title: AIM-VA Technical Assistance Specialist

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Brennan	Sheila	Resignation	06/22/2018

Title: Research Associate Professor

Classification: Term - Research

Local Academic Unit: History and Art History (CHSS)

Broderick	M. Jacob	Contract expiration	05/24/2018
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: English (CHSS)

Bryant	Julie C.	Resignation	05/31/2018
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Title: Assistant Director of Student Involvement for Fraternity and Sorority Life

Classification: At will - Admin/Professional

Local Academic Unit: Student Involvement (UL)

Brzowsky	Kristofer	Resignation	03/23/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

Buchanan	Caitlyn M.	Resignation	08/07/2018
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Title: Resident Director

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Butler	Lawrence E.	Retirement	05/24/2018

Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: History and Art History (CHSS)

Bychkovska	Tetyana	Contract expiration	05/07/2018
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Title: Writing Center ESL Specialist

Classification: At will - Admin/Professional

Local Academic Unit: English (CHSS)

Chowdhury	Sharmistha	Contract expiration	07/06/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

Choy	Cheryl	Resignation	08/31/2018
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Title: Associate Director

Classification: At will - Admin/Professional

Local Academic Unit: Office of the Provost

Christensen	Alan H.	Retirement	05/24/2018
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Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Biology (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Chung	Bong Jae	Resignation	08/24/2018

Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Bioengineering (VSE)

Cissna	Sarah D.	Resignation	05/23/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Arts Management (CVPA)

Connors	Sasha N.	Resignation	06/29/2018
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Title: Director, Operations

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

Cooper	Paul	Resignation	01/09/2019
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Chemistry and Biochemistry (COS)

Note(s): Dr. Cooper has accepted another position outside the University.

Dalton	Kelly M.	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Integrative Studies (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Davidson	Michele R.	Resignation	05/24/2018

Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Nursing (CHHS)

Dobolyi	Kinga	Resignation	05/24/2018
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Computer Science (VSE)

Dortch	Marlon	Resignation	09/09/2017
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Title: Associate Director, Student Services and Advisor

Classification: At will - Admin/Professional

Local Academic Unit: Integrative Studies (CHSS)

Doty	Brian	Retirement	09/24/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Ocean-Land-Atmosphere Studies (COS)

Duffey	Amber M.	Resignation	09/14/2018
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Title: Assistant Director

Classification: At will - Admin/Professional

Local Academic Unit: Student Involvement (UL)

Note(s): Ms. Duffey has accepted another position outside the University.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Dunaway	Sean J.	Resignation	08/24/2018

Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: INTO Mason (Provost)

Dutt	Abhijit	Resignation	01/09/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

Dworzecka	Maria	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Physics and Astronomy (COS)

Dyre	Leslie	Retirement	06/12/2018
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Title: Executive Director of Finance and HR

Classification: At will - Admin/Professional

Local Academic Unit: College of Humanities and Social Sciences

Earley	Penelope M.	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Eil	David	Contract expiration	05/24/2018

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Economics (CHSS)

English	Michael	Resignation	07/24/2018
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Title: Online Learning Coordinator and Instructional Librarian

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Esfahani	Elham Sahraei	Resignation	08/24/2018
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Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Mechanical Engineering (VSE)

Note(s): Dr. Esfahani has accepted another position outside the University.

Evans	Wayne H.	Contract expiration	08/24/2018
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Title: Director, Mentor Protégé Program

Classification: At will - Admin/Professional

Local Academic Unit: Mason Enterprise Center

Fallon	Dana M.	Resignation	06/24/2018
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Title: Director, Student Records

Classification: At will - Admin/Professional

Local Academic Unit: Antonin Scalia Law School

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Farrokhrooz	Mehdi	Contract expiration	06/25/2018

Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Electrical and Computer Engineering (VSE)

Fennessy	Michael	Contract expiration	01/09/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Center for Ocean, Land and Atmosphere Studies (COS)

Filannino	Michele	Resignation	07/31/2018
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Applied Information Technology (VSE)

Foster	Kimberly M.	Resignation	09/08/2017
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Title: Strength and Conditioning Coach

Classification: At will - Admin/Professional

Local Academic Unit: Intercollegiate Athletics

Gao	Qing	Resignation	12/09/2017
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Arts Management (CVPA)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Gazdecki	Evan C.	Resignation	08/22/2018

Title: Resident Director

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Gill	David	Resignation	06/30/2018
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Environmental Science and Policy (COS)

Gomaa	Hassan	Retirement	07/09/2018
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Title: Research Professor

Classification: Tenured (without term) - Instructional

Local Academic Unit: Computer Science

Hahn	Andrew	Resignation	08/10/2018
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Title: Mason LIFE, Employment Coordinator

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Harber	Linda	Retirement	06/23/2018
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Title: Vice President, Human Resources, Payroll, and Faculty and Staff Life

Classification: At will - Admin/Professional

Local Academic Unit: Human Resources and Payroll

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Harris	Amy L.	Resignation	09/29/2017

Title: Director, Corporate Outreach and Special Projects

Classification: At will - Admin/Professional

Local Academic Unit: Virginia Serious Game Institute

Harris	Constance A.	Resignation	07/06/2018
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Title: Assistant Director, Instructional Design

Classification: At will - Admin/Professional

Local Academic Unit: Administrative Offices Other

Harris-Sealey	Nicole J.	Resignation	08/03/2018
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Title: Academic Director, INTO Mason

Classification: At will - Admin/Professional

Local Academic Unit: INTO Mason (Provost)

Harvey	Anthony	Resignation	06/15/2018
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Title: Director of Information Technology and Cybersecurity

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Herrick	Jeffrey	Resignation	05/24/2018
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Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Rehabilitation Sciences (CHHS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Hills	Laura C.	Resignation	08/09/2018

Title: Assistant Director, Career Development

Classification: At will - Admin/Professional

Local Academic Unit: Schar School of Policy and Government

Holt	Mack	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: History and Art History (CHSS)

Hopson	Rodney K.	Resignation	08/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: College of Education and Human Development

Hughes Hallett	Andrew	Retirement	05/24/2018
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Title: University Professor

Classification: Tenured (without term) - Instructional

Local Academic Unit: Schar School of Policy and Government

Iezzi	Michelle T.	Resignation	04/13/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Jackson	Andrina	Resignation	06/15/2018

Title: Resident Director

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Johnson	Robert P.	Resignation	03/11/2018
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Title: Director, Development

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Joiner	Wilsaan	Resignation	08/24/2018
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Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Bioengineering (VSE)

Note(s): Dr. Joiner has accepted another position outside the University.

Jonas	Robert	Retirement	05/24/2018
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Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Jones	Christie	Contract expiration	08/24/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: School of Business

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Jorgenson	Linn	Resignation	07/24/2018

Title: Associate Dean

Classification: At will - Admin/Professional

Local Academic Unit: University Life

Kermani	Golriz	Resignation	08/17/2018
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Mechanical Engineering (VSE)

Keromytis	Angelos	Resignation	08/14/2018
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Title: Research Professor

Classification: Term - Research

Local Academic Unit: Computer Science (VSE)

Note(s): Dr. Keromytis has accepted another position outside the University.

Kicinger	Iwona M.	Contract expiration	08/24/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Center for Health Policy, Research, and Ethics

Kiourtis	Nikolaos	Resignation	09/07/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Computer Science (VSE)

Note(s): Dr. Kiourtis has accepted another position outside the University.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Kolias	Konstantinos	Resignation	08/04/2018

Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: VSE Other

Kurtz	Howard V.	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Theater (CVPA)

Kwon	Ryun Young	Resignation	09/12/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Physics and Astronomy (COS)

Lantz	John C.	Resignation	11/27/2017
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Title: Resident Director

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Larson	Richard G.	Retirement	01/09/2018
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Title: Term Distinguished Professor

Classification: Term - Instructional

Local Academic Unit: School of Business

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Leak	Carl E.	Resignation	08/24/2018

Title: Life Sciences Librarian
Classification: At will - Admin/Professional
Local Academic Unit: University Libraries

Lisic	Ling L.	Resignation	05/24/2017
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Title: Associate Professor without Term
Classification: Tenured (without term) - Instructional
Local Academic Unit: School of Business

Lodata	Ryan N.	Contract expiration	04/23/2018
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Title: Outreach Manager
Classification: At will - Admin/Professional
Local Academic Unit: Law and Economics Center (ASLS)

Lohse	Anne Marie B.	Resignation	08/24/2018
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Title: Term Associate Professor
Classification: At will - Instructional
Local Academic Unit: College of Education and Human Development

Long	Elizabeth	Resignation	01/05/2018
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Title: Associate Architect Planner
Classification: At will - Admin/Professional
Local Academic Unit: Facilities

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Lund	David R.	Resignation	08/09/2018

Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Antonin Scalia Law School

Mastrofski	Stephen	Retirement	05/24/2018
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Title: University Professor

Classification: Tenured (without term) - Instructional

Local Academic Unit: Criminology, Law and Society (CHSS)

Milner	Stephanie	Resignation	08/10/2018
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Title: Assistant Director of Residence Life

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Mishra	Anant	Resignation	05/24/2018
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Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: School of Business

Moore	Ian	Resignation	09/15/2018
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Title: Program Specialist

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Morrow	Kathleen M.	Contract expiration	05/24/2018

Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Murray-John	Patrick D.	Contract expiration	07/31/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: History and Art History (CHSS)

Noh	Kyung-Im	Resignation	03/09/2018
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Title: Assessment and Planning Officer

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Nutt	Katherine T.	Resignation	07/16/2018
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Title: T/TAC Curriculum and Instruction Coordinator

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Paeglow	Corrie	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Global and Community Health (CHHS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Painter	Julia E.	Resignation	05/24/2018

Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Global and Community Health (CHHS)

Pant	Ramesh R.	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Chemistry and Biochemistry (COS)

Paraskevopoulos	Pavlos	Contract expiration	09/04/2018
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Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Computational and Data Sciences (COS)

Parsons	Edward C. M.	Contract expiration	05/24/2018
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Payne-Borden	Jacqueline	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Perkins	David R.	Contract expiration	08/24/2017

Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Communication (CHSS)

Pickett	Gregory	Contract expiration	08/14/2018
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Title: Director, Business Finance Director

Classification: At will - Admin/Professional

Local Academic Unit: Mason Enterprise Center

Pober	Peter	Retirement	05/24/2018
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Title: Distinguished Service Professor

Classification: Term - Instructional

Local Academic Unit: Communication (CHSS)

Polchow	Michelle	Resignation	07/11/2018
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Title: Electronic Resources Librarian

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Pritz	Michael P.	Contract expiration	05/24/2018
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Title: Term Professor

Classification: Term - Instructional

Local Academic Unit: Neuroscience Program (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Provornikova	Elena	Resignation	05/25/2018

Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Physics and Astronomy (COS)

Pugh	John	Contract expiration	05/24/2018
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Title: Term Instructor

Classification: Term - Instructional

Local Academic Unit: INTO Mason (Provost)

Raghuraman	Thulasi Kumar	Resignation	09/05/2018
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Title: Associate Director

Classification: At will - Admin/Professional

Local Academic Unit: Institutional Research and Effectiveness

Rehr	David K.	Resignation	05/24/2018
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Title: Lecturer-in-Law

Classification: Term - Instructional

Local Academic Unit: Antonin Scalia Law School

Ren	Ling	Contract expiration	01/24/2018
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Title: Research Assistant Professor

Classification: Term - Research

Local Academic Unit: Environmental Science and Policy (COS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Renz	Matthias	Resignation	05/24/2018

Title: Associate Professor

Classification: Tenure track - Instructional

Local Academic Unit: Computational and Data Sciences (COS)

Reynolds	Anne B.	Resignation	07/19/2018
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Title: Director of Communication

Classification: At will - Admin/Professional

Local Academic Unit: College of Humanities and Social Sciences

Rhodes	Tara A.	Resignation	09/06/2018
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Title: Resident Director

Classification: At will - Admin/Professional

Local Academic Unit: Housing and Residence Life (UL)

Richards	Philip	Retirement	04/20/2018
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Title: Research Professor

Classification: Term - Research

Local Academic Unit: Physics and Astronomy (COS)

Rogers	Jeremy L.	Resignation	05/23/2018
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Title: Assistant Director

Classification: At will - Admin/Professional

Local Academic Unit: Disability Services (UL)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Rosen	Peter M.	Resignation	03/02/2018

Title: Director, Real Estate Management

Classification: At will - Admin/Professional

Local Academic Unit: Facilities Administration

Sanchez	Maria Andreina	Resignation	09/24/2018
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Title: Administrative Coordinator

Classification: At will - Admin/Professional

Local Academic Unit: College of Education and Human Development

Sandole	Dennis J.	Deceased	05/04/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: School for Conflict Analysis and Resolution

Saperstone	Stephen H.	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Mathematical Science (COS)

Schaefer-Senft	Patricia M.	Resignation	09/08/2017
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Title: Assistant Director, Veteran's Business Outreach Center

Classification: At will - Admin/Professional

Local Academic Unit: Mason Enterprise Center

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Schneider	Edwin	Resignation	05/24/2018

Title: University Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Schwebach	J. Reid	Resignation	08/24/2018
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Title: Coordinator, COS High School Outreach and Recruitment/Coordinator, Governor's School

Classification: At will - Admin/Professional

Local Academic Unit: College of Science

Scott	Ciera V.	Resignation	07/11/2018
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Title: Coordinator, Multicultural Services and Community Education

Classification: At will - Admin/Professional

Local Academic Unit: Counseling and Psychological Services (UL)

Seligmann	Linda	Retirement	05/24/2018
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Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Sociology and Anthropology (CHSS)

Shanholtz	Spencer A.	Resignation	09/07/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Schar School of Policy and Government

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Smith	Heather M.	Resignation	03/14/2018

Title: Assistant Director, Patriot Club

Classification: At will - Admin/Professional

Local Academic Unit: Intercollegiate Athletics

Smith	Diane H.	Retirement	04/01/2018
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Title: Associate University Librarian, Research and Education Services

Classification: At will - Admin/Professional

Local Academic Unit: University Libraries

Soubakhsh	Damoon	Resignation	08/24/2018
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Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Mechanical Engineering (VSE)

Note(s): Dr. Soubakhsh has accepted another position outside the University.

Stroup	Nicholas R.	Resignation	08/02/2018
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Title: Associate Director, Student Services

Classification: At will - Admin/Professional

Local Academic Unit: School of Policy, Government and International Affairs

Studemeyer	Catherine	Resignation	08/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Global Affairs Program (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Torzilli	Albert	Retirement	05/24/2018

Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Environmental Science and Policy (COS)

Toulouse	Cheryl	Resignation	05/24/2018
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Title: Term Assistant Professor

Classification: Term - Instructional

Local Academic Unit: Nursing (CHHS)

Treyger	Elina	Resignation	05/24/2018
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Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Antonin Scalia Law School

Vitter	Zoe E.	Resignation	08/31/2018
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

Note(s): Ms. Vitter has accepted another position outside the University.

Vovak	Heather	Resignation	11/17/2017
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Title: Research Associate (Instructor)

Classification: Term - Research

Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Warren	John	Resignation	08/06/2018

Title: Director, Mason Publishing Group
Classification: At will - Admin/Professional
Local Academic Unit: University Libraries

Washington	Anne L.	Resignation	01/09/2018
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Title: Assistant Professor
Classification: Tenure track - Instructional
Local Academic Unit: Schar School of Policy and Government

Wells	Mary P.	Resignation	05/31/2018
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Title: Assistant Director for Internationalization
Classification: At will - Admin/Professional
Local Academic Unit: International Program and Services

White	Mark C.	Resignation	07/31/2018
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Title: Deputy Director, Regional Analysis
Classification: Term - Research
Local Academic Unit: Schar School of Policy and Government

White	Clair	Resignation	08/24/2018
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Title: Research Assistant Professor
Classification: Term - Research
Local Academic Unit: Criminology, Law and Society (CHSS)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Wiggins	David	Retirement	07/24/2018

Title: Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: College of Education and Human Development

Willett	Brantley	Resignation	09/07/2018
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Title: Associate Director for Academic Integrity

Classification: At will - Admin/Professional

Local Academic Unit: Academic Integrity (UL)

Note(s): Dr. Willett has accepted another position outside the University.

Yang	Yu-Wei T.	Resignation	05/24/2018
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Title: Associate Professor without Term

Classification: Tenured (without term) - Instructional

Local Academic Unit: Health Administration and Policy (CHHS)

Yook	Esther (Eunkyong)	Contract expiration	05/24/2018
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Title: Term Associate Professor

Classification: Term - Instructional

Local Academic Unit: Communication (CHSS)

Zhao	Yunpeng	Resignation	08/24/2018
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Title: Assistant Professor

Classification: Tenure track - Instructional

Local Academic Unit: Statistics (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

SEPARATIONS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>	<u>EFFECTIVE DATE</u>
Zhou	Weiwei	Resignation	07/24/2018

Title: Postdoctoral Research Fellow

Classification: Term - Postdoctoral

Local Academic Unit: Bioengineering (VSE)

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Abramson	Alan J.	Leave with Partial Pay

Title: Professor without Term

Local Academic Unit: Schar School of Policy and Government

Note(s):

Professor Abramson has been awarded a Faculty Study Leave at one half pay for AY 2018-2019.

Albanese	Denise	Title Change
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Title: Director of Cultural Studies Program

Local Academic Unit: English (CHSS)

Note(s): Retained Title-Professor without Term

Anand	Priyanka	Tenure Track Contract Extension
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Title: Assistant Professor

Local Academic Unit: Health Administration and Policy (CHHS)

Anderson	Eric G.	Leave with Pay
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Title: Associate Professor without Term

Local Academic Unit: English (CHSS)

Note(s):

Professor Anderson has been awarded a Faculty Study Leave at half pay for AY 2018-2019.

Aromas Janosik	Justin	Title Change
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Title: Director, Recruiting and Marketing

Local Academic Unit: Antonin Scalia Law School

Note(s): Previous Title: Associate Director, Recruiting and Marketing

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Auerswald	Philip	Leave with Partial Pay

Title: Associate Professor without Term

Local Academic Unit: Schar School of Policy and Government

Note(s):

Professor Auerswald has been awarded a Faculty Study Leave at one half pay for AY 2018-2019.

Baily	Supriya	Leave with Pay
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Title: Associate Professor without Term

Local Academic Unit: College of Education and Human Development

Note(s): Professor Baily has been awarded a Faculty Study Leave for Fall Semester 2018.

Baker	Robert E.	Title Change
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Title: Director, Sport, Recreation, and Tourism

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Professor without Term

Baker	Pamela	Title Change
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Title: Director, Special Education and DisAbility Research

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Associate Professor without Term

Banville	Dominique	Title Change
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Title: Director, Health and Human Performance

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Associate Professor without Term

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

Billingham

Lisa

Title Change

Title: Director, Graduate Studies

Local Academic Unit: Music (CVPA)

Note(s): Retained Title-Associate Professor without Term

Britt

Thomas

Leave with Pay

Title: Associate Professor without Term

Local Academic Unit: Film and Video Studies Program

Note(s): Professor Britt has been awarded a Faculty Study Leave for Fall Semester 2018.

Buehl

Michelle M.

Title Change

Title: Director, Educational Psychology, Research Methods, and Education Policy

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Professor without Term

Bulancea

Gabriela

Title Change

Title: Term Assistant Professor

Local Academic Unit: Mathematical Science (COS)

Note(s): Previous Title:Term Instructor

Bushallow

Lara

Title Change

Title: Director, Digital Technologies

Local Academic Unit: University Libraries

Note(s): Previous Title:Head, Systems Group

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Butler	Henry	Title Change
Title: Executive Director, Law & Economic Center Local Academic Unit: School of Law		
Note(s): Additional Title:Dean, Antonin Scalia Law School Retained Title-Professor without Term/GMU Foundation Professor of Law		
Chitnis	Parag	Title Change
Title: Faculty Fellow, Graduate Education Local Academic Unit: Office of the Provost		
Note(s): Retained Title-Assistant Professor		
Chorvat	Terrence R.	Leave without Pay
Title: Professor without Term Local Academic Unit: Antonin Scalia Law School		
Note(s): Professor Chorvat will be on Leave without Pay for AY 2018-2019 to take a visiting position with the University of Iowa.		
Clark	Keith S.	Leave without Pay
Title: Professor without Term Local Academic Unit: English (CHSS)		
Clark-Talley	Christine	Title Change
Title: Associate Vice President, Alumni Relations and Annual Giving Local Academic Unit: Advancement and Alumni Relations		
Note(s): Previous Title:Associate Vice President, Alumni Affairs		

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Cooley	Mark	Leave with Pay

Title: Associate Professor without Term

Local Academic Unit: Art (CVPA)

Note(s): Professor Cooley has been awarded a Faculty Study Leave for Fall Semester 2018.

Cooper	James C.	Title Change
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Title: Director, Program on Economics and Privacy

Local Academic Unit: Antonin Scalia Law School

Note(s): Retained Title-Associate Professor without Term

Crooks	Andrew	Title Change
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Title: Distinguished Mentoring Faculty

Local Academic Unit: Computational and Data Sciences (COS)

Note(s): Retained Title-Associate Professor without Term

Cuffee	Valerie	Title Change
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Title: BSW Program Director

Local Academic Unit: Social Work (CHHS)

Note(s): Retained Title-Term Instructor

Dabbagh	Nada	Title Change
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Title: Director, Division of Learning Technologies

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Associate Professor without Term

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

D'Antonio

Laura J.

Title Change

Title: Term Assistant Professor

Local Academic Unit: School of Business

Note(s): Previous Title:Term Instructor

Detlev

Angela

Title Change

Title: Assistant Provost for Institutional Research

Local Academic Unit: Institutional Research and Effectiveness

Note(s): Previous Title:Director, Institutional Reporting

Detlev

Angela

Title Change

Title: Interim Associate Provost

Local Academic Unit: Institutional Research and Effectiveness

Note(s): Retained Title-Assistant Provost, Institutional Research

Diemer

Kathleen M.

Title Change

Title: Associate Vice President, Advancement Relations

Local Academic Unit: Advancement and Alumni Relations

Note(s): Previous Title:Director, Donor Relations and Stewardship

Dirmeyer

Paul Alan

Leave with Partial Pay

Title: Professor without Term

Local Academic Unit: Atmospheric, Oceanic and Earth Sciences (COS)

Note(s):

Professor Dirmeyer has been awarded a Faculty Study Leave with partial pay for academic year 2018-2019.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

Druehl

Cheryl

Title Change

Title: Associate Dean for Faculty

Local Academic Unit: School of Business

Note(s): Retained Title-Associate Professor without Term

Evans Cuellar

Alison

Title Change

Title: Interim Associate Dean, Research

Local Academic Unit: Health Administration and Policy (CHHS)

Note(s): Retained Title-Professor without Term

Feldman

Ellen

Title Change

Title: Associate Director

Local Academic Unit: Antonin Scalia Law School

Note(s): Previous Title:Head, Administrative and Access Services

Fournier

Marc

Title Change

Title: Associate Vice President, Real Estate and Business Services

Local Academic Unit: Auxillary Enterprises

Note(s): Previous Title:Assistant Vice President, Business Services

Fox

Rebecca

Title Change

Title: Director, Advanced and Professional Teacher Development

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Professor without Term

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

Freeman

Elizabeth

Title Change

Title: Faculty Fellow

Local Academic Unit: Smithsonian-Mason School of Conservation

Note(s): Retained Title-Associate Professor without Term

Gaston

Whitney K.

Title Change

Title: Interim Director and Assistant Dean, Student Academic Affairs

Local Academic Unit: College of Health and Human Services

Note(s): Retained Title-Director, Admissions and Advising

Gero

Edward

Leave with Pay

Title: Associate Professor without Term

Local Academic Unit: Theater (CVPA)

Note(s): Professor Gero has been awarded a Faculty Study Leave for Spring Semester 2019.

Gibson

Brian

Title Change

Title: Executive Director, Global Education Office

Local Academic Unit: Office of the Provost

Note(s): Previous Title: Director, Mason Study Abroad

Gocala

Maxwell

Title Change

Title: Associate Director, Undergraduate Recruiting and Outreach

Local Academic Unit: School of Business

Note(s): Previous Title: Undergraduate Recruitment and Outreach Coordinator

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Gomaa	Hassan	Conversion

Title: Research Professor

Local Academic Unit: Computer Science

Note(s): Previous Title: Professor without Term
Dr. Gomaa was converted from a tenured position to a research position to complete grant funded research as part of retirement transition.

Grotophorst	Clyde	Title Change
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Title: Associate University Librarian, Digital System and Strategies

Local Academic Unit: University Libraries

Note(s): Previous Title: Associate University Librarian, Automated Systems

Haddad	Bassam S.	Title Change
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Title: Director, Middle East Studies Minor Program

Local Academic Unit: College of Humanities and Social Sciences

Note(s): Additional Title: Director, Middle East and Islamic Studies MA Program
Retained Title-Associate Professor without Term

Harvey	Tamara M.	Leave without Pay
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Title: Associate Professor without Term

Local Academic Unit: English (CHSS)

Note(s): Professor Harvey has been awarded a Faculty Study Leave for Spring Semester 2019.

Hazel	William A.	Title Change
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Title: Senior Advisor, Innovation and Community Engagement

Local Academic Unit: Office of the Provost

Note(s): Previous Title: Senior Advisor, Strategic Initiatives and Policy

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

Henderson

Jourdain D.

Title Change

Title: Residence Life Coordinator, Community Standards

Local Academic Unit: Housing and Residence Life (UL)

Note(s): Previous Title: Neighborhood Coordinator

Hjalmarson

Margret A.

Title Change

Title: Director, PHD in Education Program

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Professor without Term

Hock

Stefan J.

Tenure Track Contract
Extension

Title: Assistant Professor

Local Academic Unit: School of Business

Hodgeson

Jeremy J.

Title Change

Title: Interim Forensics Director

Local Academic Unit: Communication (CHSS)

Note(s): Retained Title-Term Instructor

Hoppner

Jessica

Leave with Partial Pay

Title: Associate Professor without Term

Local Academic Unit: School of Business

Note(s): Professor Hoppner has been awarded a Faculty Study Leave for Fall Semester 2018.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

LAST NAME

FIRST NAME

TYPE

Hutchison

Amy C.

Title Change

Title: Director, Elementary, Literacy, Multicultural, and Secondary Education

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Associate Professor without Term

Joyner

Lisa R.

Title Change

Title: Executive Director, Finance and Administration

Local Academic Unit: College of Health and Human Services

Note(s): Previous Title:Executive Director, Budget and Administration

Kemp

Lisa G.

Title Change

Title: Vice President, Finance and Budget

Local Academic Unit: Fiscal Services

Note(s): Previous Title:Associate Vice President and Controller

Kessler

Karyn E.

Title Change

Title: Interim Academic Director

Local Academic Unit: INTO Mason (Provost)

Note(s): Retained Title-Associate Director, Curriculum and Instruction

Kidd

Julie

Title Change

Title: Director, Child, Family and Community Engagement

Local Academic Unit: College of Education and Human Development

Note(s): Retained Title-Professor without Term

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Kitching	Karen T.	Leave with Pay

Title: Associate Professor without Term

Local Academic Unit: School of Business

Note(s): Professor Kitching has been awarded a Faculty Study Leave for Spring Semester 2019.

Koper	Christopher	Leave with Pay
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Title: Associate Professor without Term

Local Academic Unit: Criminology, Law and Society (CHSS)

Note(s): Professor Koper has been awarded a Faculty Study Leave for Fall Semester 2018.

Krall	Jenna R.	Leave with Partial Pay
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Title: Assistant Professor

Local Academic Unit: Global and Community Health (CHHS)

Note(s): Professor Krall will be on leave with partial pay for AY 2018 - 2019.

Krell	Misty	Title Change
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Title: Director, Academic Affairs

Local Academic Unit: Integrative Studies (CHSS)

Note(s): Previous Title: Director, Student Services

Lancaster	Roger	Leave with Partial Pay
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Title: Professor without Term

Local Academic Unit: Cultural Studies Program (CHSS)

Note(s): Professor Lancaster was awarded Faculty Study Leave for AY 2017-2018 at half pay.

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Lee	Seungwon (Shawn)	Leave with Pay

Title: Associate Professor without Term

Local Academic Unit: College of Education and Human Development

Note(s): Professor Lee has been awarded a Faculty Study Leave for Fall Semester 2018.

Leeman	Jennifer	Leave with Pay
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Title: Associate Professor without Term

Local Academic Unit: Modern and Classical Languages (CHSS)

Note(s): Professor Leeman has been awarded a Faculty Study Leave for Fall Semester 2018.

Lehnertz	Christina	Title Change
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Title: Director, Immigration Compliance and Advising

Local Academic Unit: International Programs and Services (UL)

Note(s): Previous Title: Associate Director, Immigration Compliance

Lester	Jaime	Title Change
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Title: Faculty Fellow, Faculty Affairs and Development

Local Academic Unit: Office of the Provost

Note(s): Retained Title-Professor without Term

Lester	Jaime	Title Change
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Title: Interim Director, Higher Education Program

Local Academic Unit: Higher Education Program (CHSS)

Note(s): Retained Title-Professor without Term

ANNOUNCEMENT

Academic Programs, Diversity, and University Community Committee

October 10, 2018

OTHER ANNOUNCEMENTS

<u>LAST NAME</u>	<u>FIRST NAME</u>	<u>TYPE</u>
Lewis	Pamela	Title Change
Title: Assistant Vice President, Strategic Advancement Systems Local Academic Unit: Advancement and Alumni Relations		
Note(s): Previous Title: Director, Development Research and Prospect Management		
Light	Andrew	Leave with Partial Pay
Title: Associate Professor without Term Local Academic Unit: Philosophy (CHSS)		
Note(s): Professor Light has been awarded a Faculty Study Leave for Academic Year 2018-2019.		
Lindley	Lisa L.	Title Change
Title: Adjunct Faculty Coordinator Local Academic Unit: Global and Community Health (CHHS)		
Note(s): Retained Title-Associate Professor without Term		
Lopez	Eduardo	Tenure Track Contract Extension
Title: Assistant Professor Local Academic Unit: Computational and Data Sciences (COS)		
Lopez-Santana	Mariely	Title Change
Title: Director, Political Science Doctoral Program Local Academic Unit: Schar School of Policy and Government		
Note(s): Retained Title-Associate Professor without Term		

Faculty and Academic Standards Committee						
SUMMARY OF FACULTY ACTIONS AND ANNOUNCEMENTS						
APPOINTMENT OF FACULTY						
	Term		Tenure Track		Research	Grant Funded
	9-month	12-month	9-month	12-month		
Instructor						
Assistant Professor						
Associate Professor						
Professor						
Administrative/Professional						
Totals						
RENEWALS/REAPPOINTMENTS						
	Term		Tenure Track		Total	
	9-month	12-month	9-month	12-month		
Instructor						
Assistant Professor						
Associate Professor						
Professor						
Administrative/Professional						
Totals						
SEPARATIONS						
	Resignation	Retirement	Contract Expiration	Deceased	Total	
OTHER ANNOUNCEMENTS						
	Leave with pay	Leave w/o pay	Title Change	Conversion	Tenure Track Contract Extension	Total

*Summary Excludes Postdoctoral Research Fellows and Research Staff

2017-2018 Degree Awards George Mason University

George Mason University continues to be a leader in producing qualified graduates at both the undergraduate and graduate levels. The university conferred a total of 8,874 degrees during the 2017-18 academic year, a slight increase of 369 awards (4%) compared to last year. Of the degrees conferred, 26% were in Science, Technology, Engineering, and Math (STEM) fields, with another 8% in health professions. George Mason continues to serve the needs of the Commonwealth, as 84% of the degrees were conferred to Virginia residents. Based on SCHEV data, in FY18 Mason granted 17% of all degrees awarded at the bachelor's level and higher by four-year public institutions in Virginia.

Degree Awards

The overall distribution of degree awards in FY18 was:

- 5,545 Bachelor's degrees
- 2,894 Master's degrees
- 300 Doctoral degrees
- 135 Law degrees

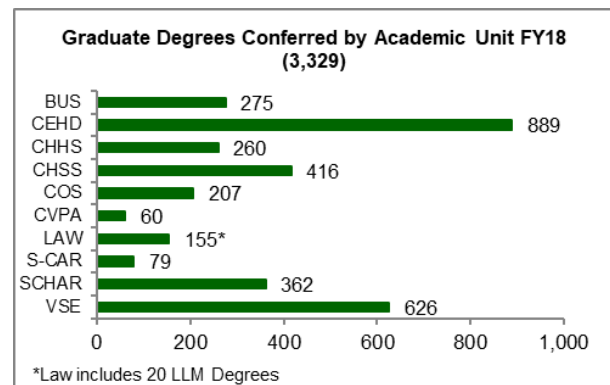
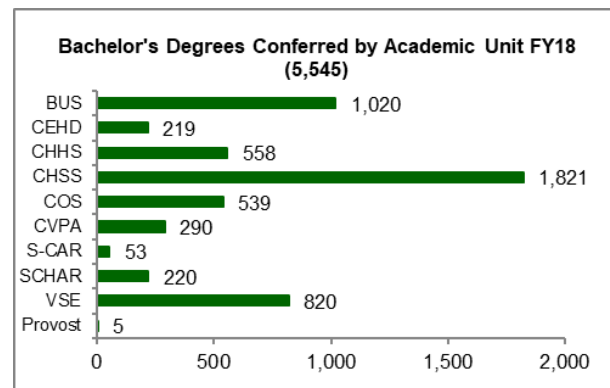
Top Degree Areas

George Mason continues to serve the Commonwealth by preparing graduates in areas of critical need. Mason also awarded an increased number of degrees in the STEM (2,294) and Health Science (701) fields, credentials the Governor hopes to increase as state institutions award more degrees. STEM degrees grew by 6% over last year, while Health Science degrees stayed the same. Teacher preparation programs are among the most productive master's degree programs at Mason, with 806 M.Ed. degrees awarded in FY18.

- The top five undergraduate degree areas were Psychology; Criminology, Law, and Society; Information Technology; Accounting; and Biology. These programs accounted for 28% of bachelor's degrees.
- Curriculum & Instruction; Special Education; Data Analytics Engineering; Education Leadership; and Public Administration were the most productive master's programs, accounting for 34% of the master's degrees awarded.
- The doctoral programs with the most graduates were Education; Nursing (DNP & PHD); Psychology; Economics; and Computer Science - accounting for 44% of the doctoral degrees awarded.

Awards by Academic Unit

The College of Humanities and Social Sciences (CHSS) awarded 1,835 bachelor's degrees, accounting for 33% of all undergraduate awards in 2017-18. At the graduate level, the College of Education and Human Development (CEHD) awarded the most degrees (889; 27%).

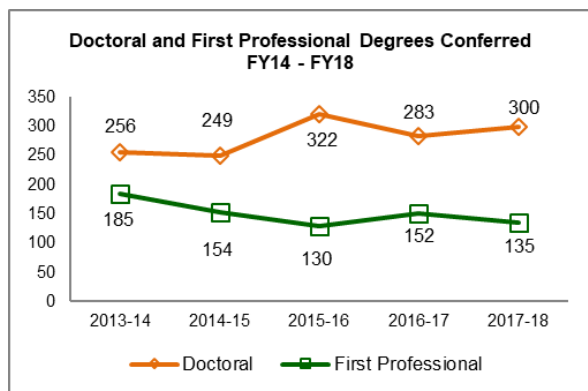
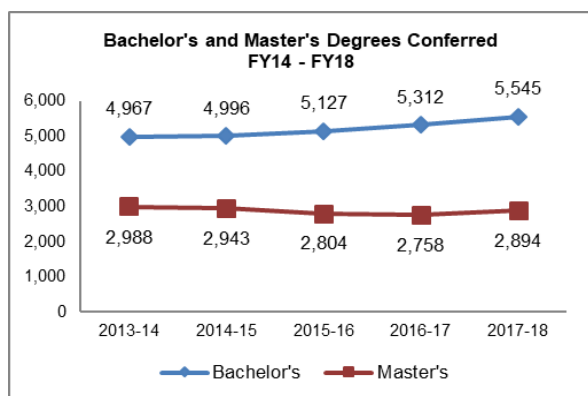


Trends in Degree Awards

The total number of degree awards increased slightly; the number of Bachelor's degrees increased 4.4%. The number of Juris Doctorate degrees decreased by 11%.

Over the last five years, Mason has increased its degree production by 6%. Master's, and the Juris Doctorate degrees have decreased and Bachelor's, and Doctoral degrees have increased during this time period:

- Bachelor's degrees have increased by 12%
- Master's degrees have decreased by 3%
- Doctoral degrees have increased by 17%
- Law degrees have decreased by 27%



Certificate Awards

In addition to the 8,874 degrees conferred during the 2017-18 academic year, Mason awarded 695 post-baccalaureate certificates. CEHD awarded 42% of the certificate awards. Thirty-one percent of certificate awards were in STEM fields, while 3% were in health professions.

Virginia Institutions Comparison

In 2017-18, George Mason conferred more awards – degrees and certificates – at the bachelor's level and above, than any other four-year public institution in the Commonwealth. The university awarded 9,569 degrees and certificates, 18% of all awards. Mason's total was 1,056 awards higher than Virginia Tech, the next closest sister institution.

By level, Mason continues to confer more master's degrees than any other Virginia institution (2,894 compared to 1,985 for the University of Virginia, 1,420 for Virginia Commonwealth University, and 1,526 for Virginia Tech).

Peer Institution Comparison

Compared to its 25 peer institutions in 2016-17, the most recent year for which data are available, Mason ranked as follows:

- 15th in overall degrees awarded
- 12th in master's degrees awarded
- 15th in bachelor's degrees awarded
- 21th in doctorate-research degrees awarded
- 20nd in the number of doctorate-professional degrees awarded (such as J.D. & M.D.)
- 1st in certificates awarded

Degree Programs

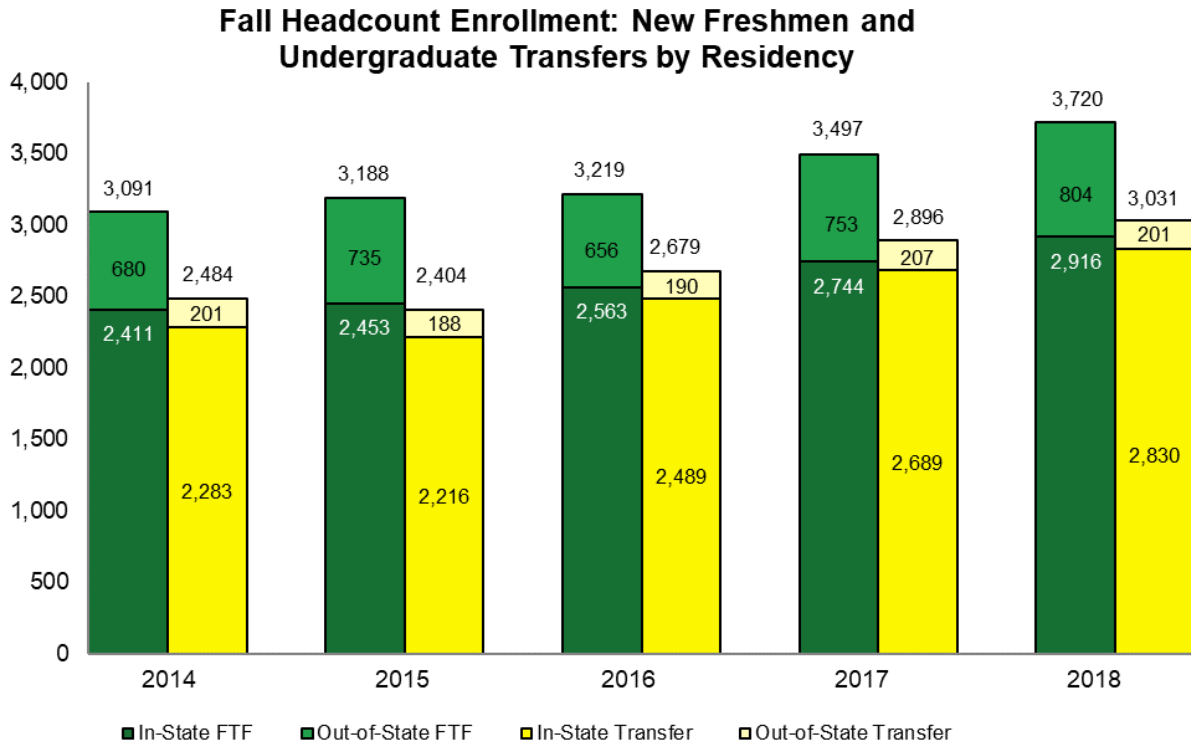
The Mason IDEA encompasses the principles of innovation and entrepreneurship, and these characteristics are evident as Mason strives to continually develop new programs in areas that are cutting edge and serve the region, the Commonwealth, and global needs. In 2017-18, Mason added two new degree programs: a Master's degree in Higher Education and Student Development and a Master's degree in Bioengineering. These new programs and the graduates they produce will serve the needs of Virginia and the broader global community.

Fall 2018 Enrollment Update and Beginning of Term Student Profile

Undergraduate Admissions

This fall Mason’s Virginia campuses welcomed 3,720 first-time freshman and 3,031 transfer students for a total of 6,751 new degree-seeking undergraduate students. Prospective freshmen and transfers applying for undergraduate admissions this fall submitted 27,776 applications, of which 24,613 were complete, and 20,030 were accepted. The yield rate (percentage of accepted applicants who enroll) for first-time freshmen is 24% while the yield rate for transfer students is 73%. Students who submitted applications for readmission or applied for a second Mason undergraduate degree increased slightly from 361 in Fall 2017 to 366 in Fall 2018.

The chart below shows the trends in new student enrollment by level and residency.



All data is as of Beginning of Term Census. INTO Mason matriculants are not included.

Freshmen: Fifty-three percent of this year’s freshmen class is from Northern Virginia, and 25% is from other areas of Virginia. The freshman class includes students from 43 states as well as the District of Columbia, Puerto Rico, US Virgin Islands, and 31 foreign countries.

Transfer Students: The majority of degree-seeking undergraduate transfer students, 81%, are from the Northern Virginia area. Northern Virginia Community College was the transfer institution for 71% of the new transfers and an additional 7% of transfers came from other Virginia community colleges.

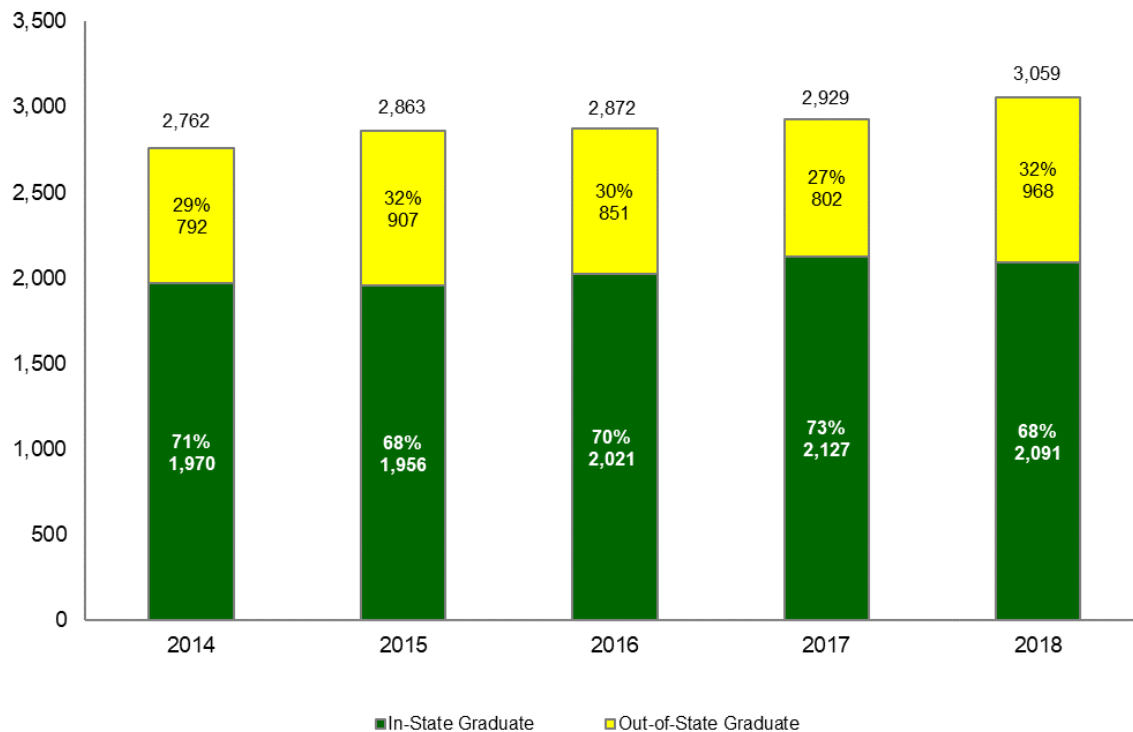
Graduate Admissions

In Fall 2018, Mason received 9,626 graduate applications, of which 8,127 were completed and 5,881 were accepted. The graduate acceptance rate was 72% and the yield rate was 52%.

Fall 2018 Graduate Applications

Graduate Level	Submitted Applications	Completed Applications	Accepted	Accepted as a % of Completed Applications	Enrolled	Enrolled as % of Accepted
Certificate	814	699	553	79.1%	310	56.1%
Masters	6,816	5,733	4,554	79.4%	2,401	52.7%
Doctoral	1,996	1,695	774	45.7%	348	45.0%
Total	9,626	8,127	5,881	72.4%	3,059	52.0%

Fall Enrollment of New Graduate Students by Residency



All years are as of Beginning of Term.

Antonin Scalia Law School Admissions

Law school applications totaled 2,551 complete applications and 646 (25%) accepted. Of these, 201 students enrolled for a yield rate of 31%. New enrollment has increased over the past five years from 155 in Fall 2013 to 201 in Fall 2018. LLM programs increased this year, with 41 new students enrolling.

US-Based Freshmen Profile

Academic Preparation: In Fall 2018, Mason welcomed our largest freshman class with 3,720 students.

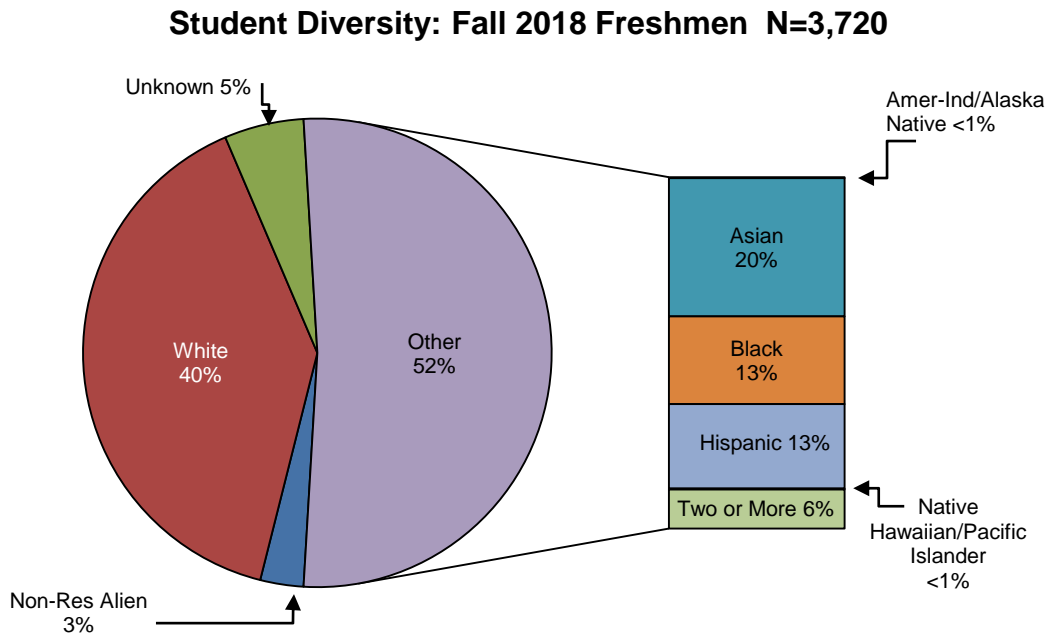
SAT Test Scores: Mason's 2018 freshman cohort had an average SAT Score (Combined Critical Reading and Mathematics) of 1218. The 75th percentile score is 1300 and the 25th percentile score is 1130. While these scores are higher than last year's by over 20 points (1197 combined, 75th percentile: 1280, 25th percentile: 1110).

High School Grade Point Average (GPA): The 3.70 average high school GPA of the Fall 2018 freshmen class is comparable to the most recent years, and up from last year's 3.66.

High School Class Rank: Only 33% of Fall 2018 freshmen reported a class rank; therefore, while we provide this information, the generalizability of the data and its comparability should not be assumed. There were 17% of this year's class in the top 10% of their high school class and an additional 32% in the top 11% to 25% of their high school class.

Diversity

Diversity is a hallmark of Mason, and this is evident in the racial/ethnic mix of our students. Of this fall's freshmen class, 52% identified themselves as being a racial/ethnic minority (Black/African American, American Indian/Alaska Native, Asian, Hispanic, Native Hawaiian/Pacific Islander, and two or more). Another 3% are Non-Resident Aliens. Twenty-One percent of our entering class identify themselves as first generation students.



Beginning of Term Census: Fall 2018 Mason Student Profile

The profile of Mason's US student body continues to reflect Mason's service to the Northern Virginia region and to the Commonwealth as a whole. US enrollment as of the BOT census was 37,293 with a full-time equivalent (FTE) of 28,926. This is an increase of 1,384 HC and an increase of 1,115 FTE from the Fall 2017 BOT census. Contract enrollment will continue to increase slightly until the middle of term census enrollment that is captured in mid-October.

Residence

Northern Virginia	24,180	65%
Other Virginia	5,731	15%
Out-of-State	7,382	20%

Level

Undergraduate	26,227	70%
Graduate	10,466	28%
First Professional	600	2%

Racial and Ethnic Diversity

Minority Students	45%
International Students	9%
White	43%
Unknown	3%

Percent of Degree-Seeking who are Full-Time

Undergraduate	82%
First Professional	77%
Graduate*	40%
Overall	71%

*Full-time graduate includes those on FT assistantships taking 6 credit hours.

George Mason University-Korea enrolled 368 students in Fall 2018, an increase of 30 students over Fall 2017. This year's new students included 41 first-time freshmen 21 new transfers, and 8 non-degree students. The majority of students are from South Korea, however there are students from Iraq and Russia, as well as US citizens, and students with dual US and South Korean citizenship.

Meeting Book - Board of Visitors Development Committee Meeting - October 10, 2018

George Mason University Board of Visitors

I. Call to Order

- A. BOV Development Committee Agenda 10-10-18.docx

II. Approval of Minutes

- A. Board of Visitors Development Committee Meeting Minutes - May 3, 2018

III. New Business

- A. GMUF Chair Report - Jay O'Brien
- B. Introduction and Funding Priorities - Ann Ardis, Dean of the College of Humanities and Social Sciences
- C. Faster Farther Campaign Close Update - Kathleen Diemer, Rob Riordan, Jenn Robinson
- D. Alumni Weekend Overview - Chris Clark-Talley
- E. Naming Gifts and Opportunities/BOV Campaign Gifts - Janet Bingham
- F. Campaign and Advancement Report - Janet Bingham

IV. Old Business

V. Adjournment

**George Mason University
Board of Visitors**

**Development Committee Meeting
October 10, 2018
10:30 a.m. – 11:20 a.m.
Merten Hall, Room 1202, Fairfax Campus**

A G E N D A

I. Call to Order

II. Approval of Development Committee Meeting Minutes from May 3, 2018 (ACTION ITEM)

III. New Business

- A. GMUF Chair Report – Jay O’Brien
- B. Introduction and Funding Priorities – Ann Ardis, Dean of the College of Humanities and Social Sciences
- C. Faster Farther Campaign Close Update – Kathleen Diemer, Rob Riordan, Jenn Robinson
- D. Alumni Weekend Overview – Chris Clark-Talley
- E. Naming Gifts and Opportunities/BOV Campaign Gifts – Janet Bingham
- F. Campaign and Advancement Report – Janet Bingham

IV. Old Business

V. Adjournment

**George Mason University
Board of Visitors**

**Development Committee Meeting
May 3, 2018
10:30 a.m. – 11:20 a.m.
Merten Hall, Room 1202, Fairfax Campus**

Meeting Minutes

Attendees: Chairman Jimmy Hazel, Visitor Wendy Marquez

Absent: Visitor Lisa Zucarri, Visitor Tracy Schar

Guests: Rector Tom Davis, Visitor Jon Peterson, Visitor Steve Cumbie, President Ángel Cabrera, Vice President Janet Bingham, Faculty Senate Representative Keith Renshaw, Faculty Representative June Tangney, Faculty Representative Alan Abramson, Student Representative Andrew Quillen, David Long, Rob Riordan, Jennifer Robinson, William Ayrea, Kelsey Fernandez

I. Call to Order

The meeting was called to order by Chairman Jimmy Hazel at 10:30 a.m.

Chairman Jimmy Hazel made a short statement regarding the current issue related to university gift agreements. Dr. Ángel Cabrera provided information regarding the topic and shared highlights of the actions taken by the university in response to concerns about academic independence and integrity. A brief discussion followed.

**II. Approval of Development Committee Meeting Minutes from March 1, 2018
(ACTION ITEM)**

Chairman Hazel called for a motion to approve the meeting minutes from March 1, 2018. A **MOTION** was made, **SECONDED**, and the **MOTION CARRIED UNANIMOUSLY BY VOICE VOTE**.

III. New Business

A. Status Report on Final Campaign Communications and Events – David Long

David Long, Rob Riordan and Jennifer Robinson delivered a presentation on the plans for the “Faster, Farther” campaign closing communications and events. The campaign officially closes December 31, 2018.

B. Giving Day Report – William Ayrea and Kelsey Fernandez

William Ayrea and Kelsey Fernandez gave a report on the Second Annual Giving Day at Mason. In 24 hours Giving Day raised \$375,000+ from 2045+ donors. Donors included alumni, faculty, staff, parents, students and friends.

C. Campaign and Advancement Report – Janet Bingham

Dr. Janet Bingham provided an update on University Advancement and Alumni Relations activities. To date \$61 million has been raised. This includes \$3.7 million from faculty and staff. Additionally, \$4 million has been raised this year for the endowment, which is currently valued at \$92 million. The “Faster, Farther” campaign total raised to date is \$583.2 million.

IV. Old Business

No old business was discussed.

V. Adjournment

There being no further business, the meeting was adjourned at 11:17 a.m.

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

**Research Committee Meeting
October 10, 2018
Merten Hall 1204**

AGENDA

- I. Call to Order
- II. Approval of Minutes (**ACTION ITEM**)
 - A. Meeting minutes for May 3, 2018
- III. State of the Research Enterprise, Dr. Deborah Crawford
- IV. Climate Change, Air Pollution, and Health Equity, Dr. Edward Maibach,
University Professor and Director, Center for Climate Change Communication,
College of Humanities and Social Sciences
- V. Adjournment

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

Research Committee Meeting

May 3, 2018

Merten Hall Room 1204

Fairfax Campus

DRAFT Meeting Minutes

Present: Provost S. David Wu; Vice-Chairman Horace Blackman; Vice President Dr. Deborah Crawford; Visitors Claire Dvoskin, Nancy Gibson Prowitt, Shawn Purvis, Bob Witeck; Faculty Representative Christy Esposito-Smythers; Guests: Dean Peggy Agouris, Dean Kenneth Ball

Absent: President Angel Cabrera; Rector Tom Davis; Chairman-Mahfuz Ahmed; Visitors Anjan Chimaladinne; Faculty Senate Chair Keith Renshaw; Faculty Representative Bijan Jabbari; Student Representatives David Kanos and Andrew Quillen

- I. Meeting called to order by Vice-Chairman Horace Blackman at 10:32am, approval of March 1, 2018 meeting minutes motioned by Visitor Claire Dvoskin, seconded by Visitor Nancy Gibson Prowitt approved by Vice-Chairman Horace Blackman.
- II. New Business:
 - A. Dr. Deborah Crawford presented on the performance of Sponsored Research Metrics (**Attachment #1**) which is looking strong for FY-18 with improvements in all sponsored research metric areas. Award dollars are up 30% meeting goals for achieving the \$225 million sponsored project goal set in the strategic plan for 2024.
 - B. Deans Peggy Agouris and Kenneth Ball presented on Science and Engineering Research Goals (**Attachment #2**) COS and VSE partnerships will enable Mason's research goals for 2024. Four points presented to demonstrate partnerships. Dean Ball presented on the 4th Industrial Revolution in Personal Health, Intelligent Systems, Sustainability, and Digital, Data Science Foundation through biological and physical collaboration with cross-college research and programmatic efforts.

The coordination of infrastructure support would include sharing of core labs and other facilities, co-locating faculty, staff, graduate students, and joint fundraising. COS and VSE Deans offices will meet to select areas of strategic focus and lay out principles to guide our collaborative efforts. We will hold larger off-site meetings.

C. Dean Germaine Louis presented on the Opioid Epidemic Research Initiative (**Attachment #3**) The symposium goal and process to lead our community in eradicating the opioid epidemic. Approximately 300 participants composed of existing and new partners, elected officials, and scientists convened to carve a path forward in developing a plan. Dean Louis described Mason's plans to formulate partnership-based approaches to compete for further research funding.

V. Adjournment

Vice Chairman Blackman motioned to adjourn meeting, motion seconded by Visitor Purvis, and adjourned the meeting at 11:25am.

Respectfully submitted,



Jocelyn L. Hanly
Research Committee Secretary Pro Tem

Attachment #1: Sponsored Research Metrics by Deborah Crawford

Attachment #2: Presentation slides by Deans Peggy Agouris and Kenneth Ball

Attachment #3: Presentation slides by Dean Germaine Louis on Opioid Symposium

	FY2017 thru Mar	FY2018 thru Mar	Difference
Proposal \$	\$317,572,578	\$361,757,090	13.91%
Proposal #	870	909	4.48%
Award \$	\$75,992,215	\$99,649,078	31.1%
Award #	660	713	8.03%
Expenditure \$	\$77,490,800	\$86,936,109	12.19%
F&A \$	\$13,067,616	\$13,972,558	6.93%

Sponsored Research Metrics FY 2017 vs FY 2018

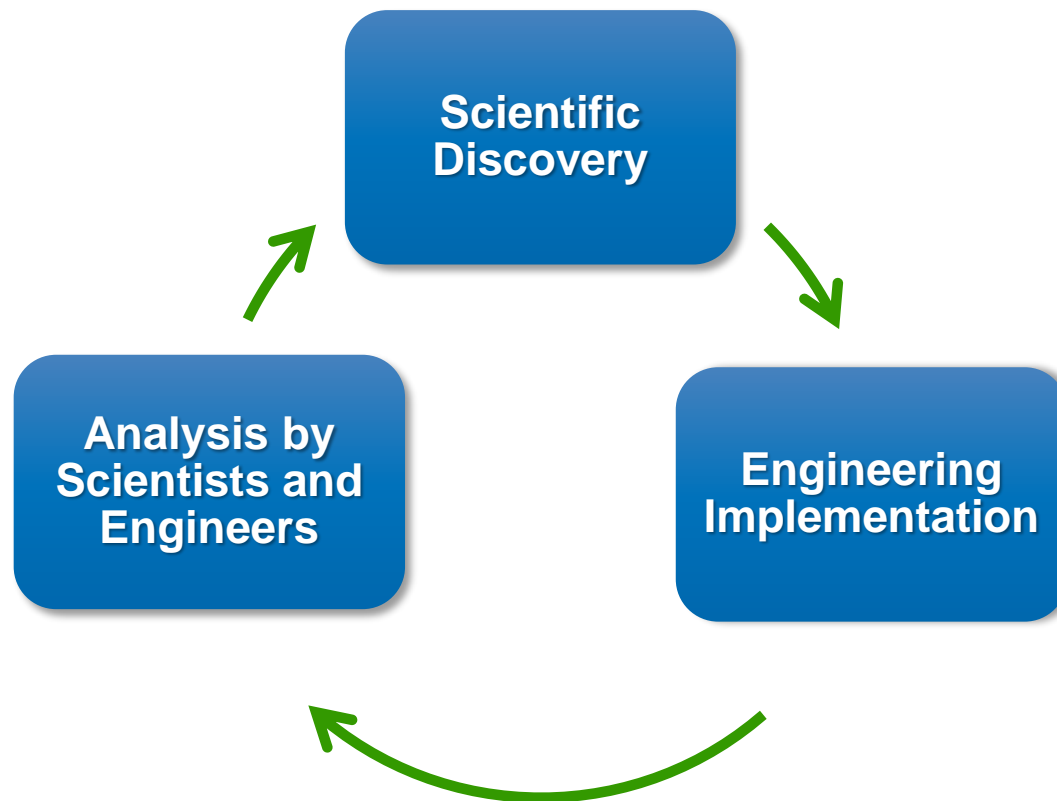
Mason Science and Engineering: Partnering for Success

Ken Ball
Dean, Volgenau School of Engineering

Peggy Agouris
Dean, College of Science

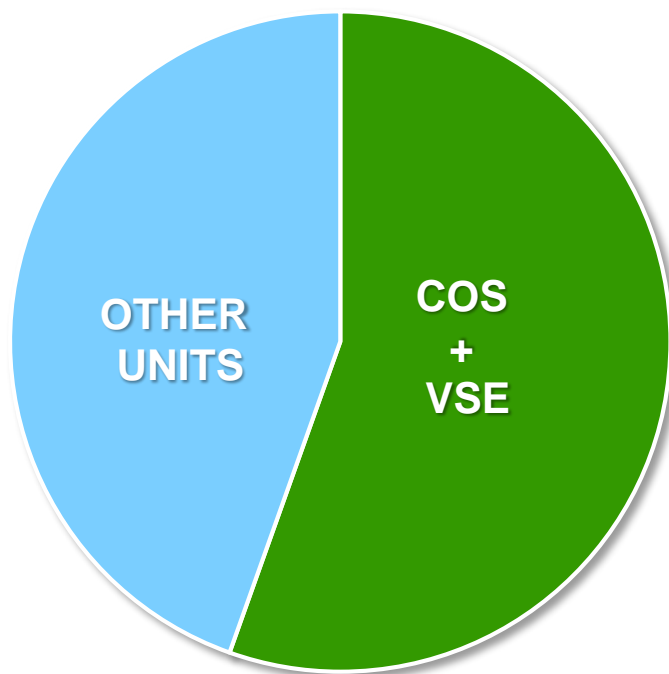


Science and Engineering: From Research to Application



Science and Engineering: Enablers of Mason's Strategic Research Goals for 2024

VSE and COS receive over 55% of all Mason sponsored research (2017)

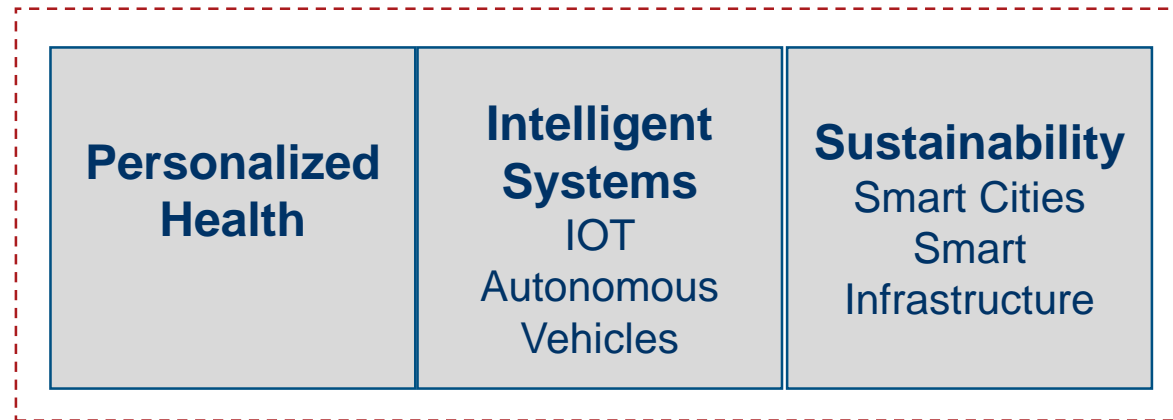


COS and VSE as partners will enable Mason's research goals for 2024:

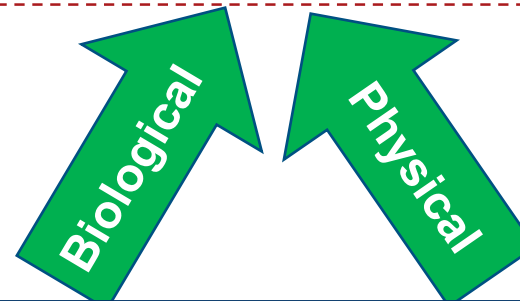
1. \$225 million in sponsored research expenditures
2. 300 new tenure-track and tenured faculty
3. 400 annual doctoral graduates and 3600 doctoral students
4. Annual research expenditures in health and wellness up 4x to \$80M, resilient and sustainable societies 1.6x to \$80M, cyber and data analytics up 2.5x to \$50M

Science and Engineering for the Fourth Industrial Revolution

(4th Industrial Revolution)



Disciplinary Strengths



Science and Engineering: Committed to Collaboration

- Cross-college **research** efforts including:
 - Joint research proposals and projects (quantum materials, neuro, disease modeling)
 - Joint centers (CASBI, QMC)
 - Jointly funded seed grants (\$75K annually)
 - Joint research seminar series
- Cross-college **programmatic** efforts including:
 - Joint academic programs
 - Cross-listed courses
 - Cross-college class guest lectures
 - Cross-college co-mentoring and doctoral committees

Science and Engineering: Committed to Collaboration

- Coordinated *infrastructure* support:
 - Shared core labs and other facilities (clean room, MRI)
 - Co-located faculty, staff, graduate students (e.g. Krasnow, IABR)
 - Joint fundraising

Examples of Ongoing Collaborations

COS	VSE	Area of Collaboration
Vora, Sauer, Tian, Zhao, Glasbrenner (QMC)	Li, Ioannou (ECE), Kang (ME)	Quantum Materials
Cressman, Vora	Agrewal, Chitnis, Peixoto, Sikdar (BENG)	Neurodynamics & Neuroengineering
Lohner, Yang, Camelli (CFD), Kan, Marzougui (CCSA)	Li, Ioannou (ECE), Kang (ME)	Applied Mechanics
Weigel, Zhang	Rangwala, Zhao (IST); ME (planned)	Space Weather Prediction
Hakami, Van Hoek, Narayanan, Jafri, Vaisman, Seshaiyer, Kehn-Hall, Blaistens	Agrewal, Ascoli, Salvador Morales, Sehu, Sikdar,	Modeling of diseases, microfluidics, neuro
Crooks, Blaistens, Emilianenko	Esmaili, Latanzi, Agrewal, Handler, Li	Agent based modeling, MDR proposals in a variety of areas

Ongoing Activities to Streamline Collaboration

Two strategic off-site retreats planned for **Fall 2018**:

1. COS and VSE Deans' Offices will meet to select areas of strategic focus and lay out principles to guide our collaborative efforts.
2. We will hold a larger off-site event that includes more unit leaders, including some department chairs and center directors. We will build on the results of the first off-site event to set concrete collaboration goals, strategies to achieve those goals, as well as near-term milestones.

Eradicating the Opioid Crisis in Northern Virginia: A Population Strategy
Symposium at George Mason University
April 19, 2018

Opioid Symposium – Goal & Process

Goal

- Leading our community in eradicating the opioid epidemic

Process

- Convene our many (existing & new) partners, elected officials, scientists to carve a path forward
- Develop & implement multi-disciplinary funding initiatives
 - Acute & long-term interventions
 - Sustainable systems

Participation

- Onsite

- 123 morning
- 172 all day

- Web

- 176 views

- <https://www.youtube.com/watch?v=HD27bxSYws4&feature=youtu.be>
- <https://vimeo.com/263903557>

Participants

Federal Agencies	State Officials	Mason Faculty	Community Partners
<p>DEA DHS DHHS SAMHSA VA</p>	<p>Governor Ralph Northam</p>	<p>University wide</p>	<p>Catholic Charities Chris Atwood Foundation Churches O'Shaunnsey Foundation Pew Charitable Trusts Potomac Foundation Rotary Club</p>
	<p>U.S. Representatives - Gerald Connolly Barbara Comstock</p>		<p>Carefirst Inova Sentara V.A. Virginia Hospital Center</p>
	<p>Supervisors</p>		<p>Chamber of Commerce Courts Juvenile Justice Police & sheriff depts.</p>
	<p>VA & County Departments of Health</p>		<p>Recovery groups</p>





Mason Opioid Working Group

Farrokkh Alemi, Brett Berlin, Deb Crawford, Alison Evans Cuellar, Christiann Esposito-Smythers, Bill Hazel, Rebekah Hersch, Germaine Louis, Cynthia Lum, Robin Mehlenbeck, Len Nichols, Lora Peppard, Louise Shelley, Anthony Stefanidis



Next Steps

- Final Report capturing content for public sharing
- Continue the conversation to devise strategy, interventions, partnerships
- Grant application & contract proposals
- Monitoring our impact





The Mason Research Enterprise Taking The Long View

Deborah Crawford
Vice President for Research

Research Committee
October 10, 2018

The Knowledge Virtuous Circle

CREATION thru
research and scholarship



Faculty as Researchers.. Scholars..
Educators.. Practitioners

IMPACT thru innovation
and service

SHARING thru education
and learning

Knowledge Creation, Sharing & Impact Performance & Results



Andrew Peterson



Honors and Awards

Sponsored Awards



Jill Nelson



Ed Maibach



Robert Wood Johnson
Foundation

Articles in Scholarly Literature

Citations to Scholarly Work



Ginny Espina



SMART Growth

Strategic Research Initiatives

Institute for a Sustainable Earth (2018-2019)

advancing sustainable and resilient development in support of a free, just, and prosperous society



Provost's MDR Competitions

Core research facilities



Institute for Digital InnovAtion (2018-2019)

advancing innovations in computing in support of a free, just and prosperous society

Institute for Biohealth Innovation (2016)

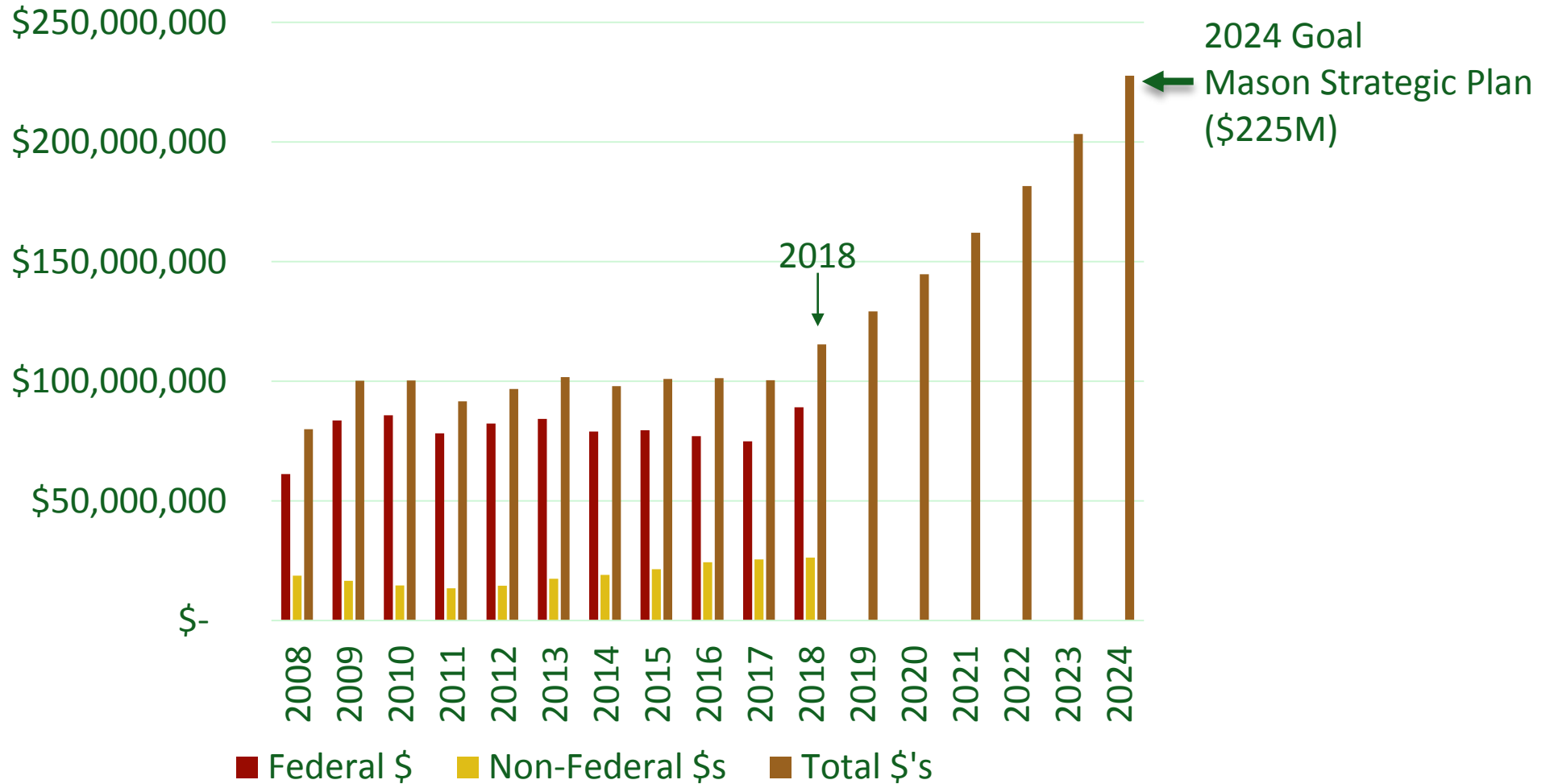
advancing the health and wellness of humankind – individuals to populations – in support of a free, just and prosperous society



Centers for Advanced Studies



Mason Sponsored Projects Performance and Projections



Mason Sponsored Projects Year over Year Comparisons

	FY17	FY18	Difference
Proposal No.	1172	1220	4.10%
Proposal \$	\$464,361,584	\$565,918,702	21.87%
Award No.	917	957	4.36%
Award \$	\$107,873,848	\$148,068,293	37.26%
Expenditure \$	\$100,364,096	\$115,380,986	14.96%
F&A \$	\$16,976,209	\$18,087,525	6.55%

	FY17 thru Sept	FY18 thru Sept	% change FY17 to FY 18	FY19 thru Sept	% change FY 18 to FY 19
Proposal No.	265	317	20%	300	-6%
Proposal \$	\$97,194,044	\$111,764,231	15%	\$124,089,398	11%
Award No.	301	309	3%	292	-6%
Award \$	\$36,774,808	\$46,106,248	25%	\$66,372,339	44%
Expenditures \$	\$31,924,834	\$32,727,648	3%	\$38,366,476	17%
F&A \$	\$5,693,873	\$5,931,645	4%	\$6,376,583	8%

SMART Growth Fundamentals



- **Recruit, support and celebrate world-class (tenure-line) faculty**
 - competitive start-up and retention strategies
 - exceptional graduate students and postdoctoral fellows
 - state-of-the-art research infrastructure

Great vision without great people is irrelevant

Jim Collins, *Good to Great*

- **Integrate research into education programs and support research impact**
 - develop innovative education programs leveraging research strengths
 - effect robust translational partnerships with non-academic partners
 - provide valuable community services leveraging research strengths
 - support an innovation ecosystem and advanced industries growth

**GEORGE MASON UNIVERSITY
BOARD OF VISITORS**

**Finance and Land Use Committee Meeting
October 10, 2018**

AGENDA

- I.** Call to Order

- II.** Approval of Minutes for May 3, 2018 (**ACTION**)

- III.** New Business
 - A. Financial Overview
 - B. 9d Debt Resolution - Utility Infrastructure Project (**ACTION**)
 - C. State Six Year Operational Plan (**ACTION**)
 - D. DHRM Succession Planning (**ACTION**)

- IV.** Operational Issues
 - A. Accounts Receivable Write-Off
 - B. Parental Leave Policy
 - C. Investment Planning Committee Update
 - D. Investment Policy Resolution (**ACTION**)

- V.** Capital Matters
 - A. Land Use Certification (**ACTION**)

- VI.** Adjournment

APPENDIX A	Capital Projects Review (Stoplight)
APPENDIX B	Unaudited FY 2018 Financial Statements

GEORGE MASON UNIVERSITY
FINANCE & LAND USE COMMITTEE
BOARD OF VISITORS

MINUTES

May 3, 2018

11:25 a.m. – 12:15 p.m.

Merten Hall, Room 1201, Fairfax Campus

PRESENT: Chairman Peterson; Vice Chairman Petersen; Visitors Alcalde, Blackman, Cumbie, Hazel; Senior Vice President Davis; Vice President Strike; Faculty Senate Chair Renshaw; Student Representatives Kanos, Quillen; Secretary *pro tem* Wilson.

I. Call to Order

Chairman Peterson convened the meeting at 11:28 a.m.

II. Approval of Minutes

Chairman Peterson announced a quorum, then requested a **MOTION** to approve the minutes of the March 1, 2018 Finance and Land Use Committee as presented. It was so **MOVED** by Visitor Hazel. **MOTION CARRIED UNANIMOUSLY.**

III. FY 2019 University Operating Budget, Tuition and Fees (ACTION)

Chairman Peterson asked Senior Vice President Davis to review Mason's FY 2019 financial plan. We worked closely with faculty, staff and students to build a fully transparent, comprehensive budget. The Commonwealth is expected to pass the budget in late May, and our challenge has been to formulate a plan conservative in nature with some funding assumptions based on the proposed budgets. There is a \$1B differential between the Governor's, the House's and Senate's budgets, so there is no clarity yet on Medicaid expansion, enrollment growth funding, financial aid, or faculty and staff compensation. Projects that are awaiting a final budget funding are Bull Run IIIB, Robinson Hall, and utility infrastructure. A major efficiency in the base budget this year included renegotiating student health insurance for FY 2019, which saved \$2.5M. Our overall proposed budget for FY 2019 is \$1.06B, and includes funding for research, compensation and emergency retention, graduate and undergraduate financial aid, the IT infrastructure project, student initiatives, strategic initiatives, and philanthropic activities. Faculty and staff healthcare costs are expected to be \$4.2M, and are mandated by the Commonwealth. Our proposed tuition and fees increase for FY 2019 is 4.5%; a modest increase compared to other Virginia universities.

Chairman Peterson requested a **MOTION** to recommend the Board of Visitors approve the FY 2019 proposed Tuition and Fees increase as detailed on pages 49-54 in the (PROPOSED) 2018-2019 Executive Budget Summary, and approval of the proposed budget as provided in the (PROPOSED) 2018-2019 Executive Budget Summary. It was so **MOVED** by Vice Chairman Petersen. **MOTION CARRIED UNANIMOUSLY.**

IV. Capital Budget Matters

A. Capital Project Authorization – Hylton HVAC Renovation (ACTION)

Chairman Peterson asked Senior Vice President Davis to brief the committee on three capital budget matters for Board approval. The first is the Hylton Performing Arts Center HVAC repairs, which at the current design stage is estimated to cost the university approximately \$4M. There is a legal settlement on this project as the current HVAC is suboptimal.

B. Merten Hall Capital Lease and Ground Lease Resolution (ACTION)

The second capital project is the GMUF capital lease on Merten Hall. There was risk associated with the lease around the financing rate. The capital and ground leases were amended with GMUF refinancing, which will decrease the lease payment by \$2.7M over the 18-year term. GMUF will transfer Merten Hall to GMU at the end of the term. The refinancing helps Mason's credit rating and solidifies our stability.

C. Six-Year Capital Plan (ACTION)

The last capital project for the Board's consideration is the Proposed Six-Year Capital Plan. The plan is modified annually with our list of priorities to SCHEV. This year we added the West Campus and Arlington Campus projects, although there's no specificity yet on capital outlay.

Chairman Peterson requested a **MOTION** to recommend the Board of Visitors approve the Hylton HVAC Repairs Capital Project Authorization; the Capital Lease Resolution for Merten Hall; and, approval of the Six-Year Capital Plan as detailed in the Board Book.

"The University hereby is authorized to enter into an amended capital lease and an amended ground lease with George Mason University Foundation Mason Administration LLC in conjunction with the Foundation's refinancing of their 2010A Fairfax County Economic Development Authority Tax-exempt Revenue Bonds (GMUF Mason Administration LLC Project)."

It was so **MOVED** by Visitor Hazel. **MOTION CARRIED UNANIMOUSLY.**

V. Operational Issue – Joint Legislative Audit and Review Commission (JLARC) Span of Control (ACTION)

Chairman Peterson asked Senior Vice President Davis to review Mason's Span of Control Policy. In 2014, the Joint Legislative Audit and Review Commission (JLARC) initiated a study entitled "*Support Costs and Staffing at Virginia's Higher Education Institutions*", which analyzed staffing levels and "spans of control", which is measured by the number of direct reports per supervisor. Their recommendations to universities were to analyze the span of control regularly, have the institutions report periodically to their Board, develop standards that establish and promote broader spans of control, and establish a Span of Control policy. Mason has created a Span of Control Policy Number 2233 which targets an average span of control of four or more direct reports per supervisor by 2024. We monitor this data and report to the BOV annually.

Chairman Peterson requested a **MOTION** to recommend the Board of Visitors approve the annual report on Span of Control, as detailed in the Board Book. It was so **MOVED** by Visitor Hazel. **MOTION CARRIED UNANIMOUSLY.**

VI. Strategic Matter – West Campus Update

Chairman Peterson asked Assistant Vice President Fournier to provide an update on student housing and West Campus. Fairfax County Redevelopment and Housing Authority (FCRHA) has selected two private industry candidates to interview for a partnership supporting student housing, affordable housing and mixed use at West Campus. Both proposals include 700-800 student beds, and 150-250 affordable housing units. The second potential housing development is a Fairfax City project about a mile off-campus, which would hold 240 units and about 760 beds. Fairfax City has received comments on the site plan. Both the FCRHA and Fairfax City projects must go through a Comprehensive Plan and rezoning process.


A Phase I capacity and environmental analysis has been done on the potential site plan for the West Campus Innovation District to understand the future impact and conditions. The completed current and future traffic study determined that spot and regional improvements need to be considered, which are either unfunded or funded through design only. We are currently expanding the traffic study to include specific programmatic elements. Fairfax Water recently added 24” utility/water transmission lines across West Campus, so there is plenty of capacity for additional development. Sewer and sanitation capacity will require an upgrade to the pump station, but no future challenges are foreseen for overall development. The site contains land that is classified as wetlands and land classified as Resource Protected areas, which are outside of the designated development area. Stormwater management has been incorporated into the future design.

Next steps in the Master Plan are Phase II, where we work through the conceptual ideation from stakeholder feedback; and Phase III, which refines the design concept with a framework plan, transportation plan, utility concept plan, landscape and open space plan, basic design guidelines, and cost estimates by phase and rendering. Einhorn Yaffee Prescott Architecture & Engineering (EYP) was selected to complete the Master Plan document which is expected to be done by the end of June.

VI. Adjournment

There being no further business, Chairman Peterson declared the meeting adjourned.

Meeting adjourned at 12:10 p.m.



Jennifer Wilson
Secretary *pro tem*

ITEM NUMBER III.A.:

FINANCIAL OVERVIEW

PURPOSE OF ITEM:

To brief the Board of Visitors on updates to the FY 2019 operating budget, strategies and initiatives, Financial Ratios and Unaudited Financial Statements for FY 2018.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

The Senior Vice President for Administration and Finance will provide an update on the FY 2019 operating and capital budget. Primarily those updates will be a review of the Commonwealth General Funds and Capital support received in the 2018-2020 Commonwealth budget.

The results of the FY 2018 unaudited financial statements will be reviewed with key financial and debt ratios highlighted. There will also be a review of changes and trends of significant financial statement categories over the last 5 years.

Further, there will be a discussion regarding upcoming financial matters that will come before the Board of Visitors for consideration and deliberation in the September 2018 – May 2019 timeframe.

STAFF RECOMMENDATION:

For Board information only.

ITEM NUMBER III.B.:

RESOLUTION FOR THE UNIVERSITY'S 9D DEBT ISSUANCE TO FINANCE THE UTILITY DISTRIBUTION INFRASTRUCTURE CAPITAL PROJECT #247-18208 (ACTION)

PURPOSE OF ITEM:

This resolution allows the University to enter into Loan Agreement/s and issue Promissory Note/s in the aggregate principal amount of \$24.1m and the cost of issuance, shall in no event exceed \$25.0m, with the Virginia College Building Authority ("VCBA") and authorizes the Senior Vice President to approve, execute and deliver all documents necessary to effectuate the financing.

APPROPRIATE COMMITTEE: FINANCE AND LAND USE

BRIEF NARRATIVE:

The Commonwealth of Virginia requires a Resolution to be passed by the participating institution's governing body prior to VCBA's sale of the Educational Facilities Revenue Bonds (9d) scheduled for December 2018. The University's 9d bond legislative authorization for this project was in 2016 Chapter 780 and 2018 Chapter 2.

As part of the Capital Budget Request for project legislative authorization, the Board of Visitor's ("BOV") approved revenue bonds as a source of funds to support the design, construction and related expenses for this capital project. This \$24.1m will be funding the construction phase of the project. In 2017, the University issued \$3.5m in 9d revenue bonds to pay for the design phase. In addition, the University will be applying \$2.4m in cash towards the project. The total project cost is \$51.539m to be paid jointly by the Commonwealth and the University.

In accordance with the debt policy, the sale of these revenue bonds and the subsequent annual debt service will be incorporated into the key financial indicators and presented with the financial benchmarks annually to the BOV.

This action authorizes aggregate principal amount of \$24.1 m and the cost of issuance and shall in no event exceed \$25.0m.

STAFF RECOMMENDATION: The staff recommends BOV approval of this resolution.

**RESOLUTION OF THE BOARD OF VISITORS OF
GEORGE MASON UNIVERSITY
VIRGINIA COLLEGE BUILDING AUTHORITY FINANCING AUTHORIZATION**

WHEREAS, pursuant to and in furtherance of Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended (the “Act”), the Virginia College Building Authority (the “Authority”) developed a program (the “Program”) to purchase debt instruments issued by public institutions of higher education in the Commonwealth of Virginia (“Participating Institutions” and each a “Participating Institution”) to finance or refinance projects of capital improvement (“Capital Projects” and each a “Capital Project”) included in a bill passed by a majority of each house of the General Assembly of Virginia (the “General Assembly”);

WHEREAS, under the Program the Authority from time to time issues its Educational Facilities Revenue Bonds (Public Higher Education Financing Program) (“Pooled Bonds”) to finance the purchase or refunding of debt instruments issued by Participating Institutions to finance or refinance Capital Projects;

WHEREAS, if a Participating Institution desires to finance or refinance a Capital Project through the Program it must enter into a loan agreement with the Authority, under which: (i) the Participating Institution will issue its promissory note pursuant to Chapter 12, Title 23.1 of the Code of Virginia of 1950, as amended, to evidence a loan to it by the Authority; (ii) the Authority will agree to issue Pooled Bonds and use proceeds thereof to purchase the promissory note; (iii) the Participating Institution will agree to use proceeds of Pooled Bonds, loaned to it and received in exchange for its promissory note, to finance or refinance the Capital Project and to not take actions that may jeopardize any federal tax-exempt status of interest on Pooled Bonds allocable to financing or refinancing the Capital Project; and (iv) the Participating Institution will agree to make payments under the promissory note in sums sufficient to pay, together with certain administrative and arbitrage rebate payments, the principal of, premium, if any, and interest due on such Pooled Bonds;

WHEREAS, the Board of Visitors (the “Board”) of George Mason University (the “Institution”) from time to time desires to finance or refinance Capital Projects for the Institution as a Participating Institution under the Program, and now proposes that the Institution issue its promissory note or notes (collectively, the “Note”) to be sold to the Authority in accordance with a loan agreement or loan agreements between the Institution and the Authority (collectively, the “Loan Agreement”), under which proceeds of Pooled Bonds will be loaned to and received by the Institution in exchange for the Note, to finance or refinance costs of the following Capital Projects authorized for bond financing by the General Assembly: the Utilities Distribution Infrastructure (Project Code 247-18208) (collectively, the “Project”); and

WHEREAS the Board desires to designate certain Institution officer (i) delegated the authority to approve the forms of and to execute and deliver the Loan Agreement, the Note and any amendments thereto, and any other documents necessary or desirable in connection with financing or refinancing costs of the Project through and participation in the Program; and (ii)

responsible for monitoring post-issuance compliance with covenants of the Institution related to maintaining any federal tax-exempt status of interest on Pooled Bonds.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD:

Section 1. The Project is hereby designated to be undertaken and financed or refinanced by the Authority and, accordingly, the Senior Vice President for Administration and Finance (the “Authorized Officer”) are each hereby delegated and invested with full power and authority to approve the forms of the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), and any pledge to the payment of the Note and any amendment thereto of total gross university sponsored overhead, unrestricted endowment income, tuition and fees, indirect cost recoveries, auxiliary enterprise revenues, general and non-general fund appropriations and other revenues not required by law or previous binding contract to be devoted to some other purpose, restricted by a gift instrument for another purpose or excluded from such pledge as provided in the Loan Agreement, subject to the provisions of Section 3 hereof.

Section 2. Subject to the provisions of Section 3 hereof, the Authorized Officer are each hereby delegated and invested with full power and authority to execute, deliver and issue, on behalf of the Institution, (a) the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise), with approval of such documents in accordance with Section 1 hereof evidenced conclusively by the execution and delivery of the respective document, and (b) any other documents, instruments or certificates as may be deemed necessary or desirable to finance or refinance costs of the Project through and participate in the Program, and to further carry out the purposes and intent of this resolution. The Authorized Officer are authorized and directed to take such steps and deliver such certificates in connection with delivery of the Note, and any amendment thereto, as may be required under any existing obligations, including bond resolutions relating to any outstanding general revenue pledge bonds, and to notify Virginia Department of Treasury representatives serving as Authority staff at least 60 days in advance of a pledge of any amounts pledged to the payment of the Note in accordance with Section 1 hereof to, or as security for, the payment of any other Institution obligations issued or entered into after the date hereof for so long as the Note and any amendments thereto remain outstanding.

Section 3. The authorizations given above as to the approval, execution, delivery and issuance of the Loan Agreement, the Note and any amendments thereto (in connection with any refunding of Pooled Bonds financing or refinancing the Project or otherwise) are subject to the following parameters: (a) the principal amount to be paid under the Note allocable to any component of the Project, together with the principal amount of any other indebtedness with respect to such component, shall not be greater than the amount authorized for such component by the General Assembly plus amounts needed to fund issuance costs, original issue discount, other financing (including without limitation refunding) expenses and any other increase permitted by law; (b) the aggregate principal amount of the Note shall in no event exceed \$25,000,000 as the same may be so increased; (c) the aggregate interest rate payable (i) under a tax-exempt Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA” rated securities with comparable maturities, as reported by Thomson Municipal Market Data (MMD) or another comparable service or index for

tax-exempt yields, as of the date that the interest rates are determined, taking into account any original issue discount or premium and (ii) under a taxable Note shall not exceed a “true” or “Canadian” interest cost more than 50 basis points higher than the interest rate for “AA rated securities with comparable maturities, as reported by MMD or another comparable service or index for taxable yields, as of the date that the interest rates are determined; (d) the weighted average maturity of the principal payments due under the Note shall not exceed 20 years after the original issue date of the Note; (e) the last principal payment date under the Note shall not extend beyond the reasonably expected weighted economic life of the Project; and (f) subject to the foregoing, the actual amount, interest rates, principal maturities, and date of the Note shall be approved by an Authorized Officer, as evidenced by the execution thereof.

Section 4. The Board acknowledges that if there is a failure to make, as and when due, any payment of the principal of, premium, if any, and interest on any promissory note issued by the Institution as a Participating Institution to the Authority under the Program, including without limitation the Note and any amendments thereto, the State Comptroller is authorized under the Program and Section 23.1-1211 of the Code of Virginia of 1950, as amended, to charge against appropriations available to the Institution all future payments of principal of, premium, if any, and interest on such promissory note when due and payable and to make such payments to the Authority or its designee, so as to ensure that no future default will occur on such promissory note.

Section 5. The Board agrees that if the Authority determines the Institution as a Participating Institution shall be subject to continuing disclosure obligations under Rule 15c2-12 of the federal Securities and Exchange Commission with respect to any Pooled Bonds, (a) an Authorized Officer shall, and is hereby authorized and directed to, enter into a continuing disclosure undertaking in form and substance reasonably satisfactory to the Authority, and (b) the Institution will comply with the provisions and disclosure obligations contained therein.

Section 6. The Board designates the Senior Vice President for Administration and Finance to be responsible for implementing procedures to monitor post-issuance compliance with covenants in any loan agreement between the Institution as a Participating Institution and the Authority, including the Loan Agreement and any amendments thereto, related to maintaining tax-exempt status for federal income tax purposes of interest on any Pooled Bonds, including without limitation monitoring the use of any portion of all Capital Projects for the Institution financed or refinanced with such Pooled Bonds and compliance with any applicable federal income tax remedial action requirements in connection with certain changes in such use. Such officer shall review such post-issuance compliance at least annually for so long as such Pooled Bonds remain outstanding.

Section 7. This resolution shall take effect immediately upon its adoption.

Adopted: October 10, 2018

Tom Davis
Rector
Board of Visitors
George Mason University

ITEM NUMBER III.C.:

**STATE SIX-YEAR OPERATIONAL PLAN*
(ACTION)**

PURPOSE OF ITEM:

The Higher Education Opportunity Act of 2011 requires biennial Board of Visitor approval of a Six-Year Plan, which is submitted to the State Council for Higher Education in Virginia (SCHEV).

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

The Senior Vice President for Administration and Finance will provide an update on Mason's six-year operating plan. The plan outlines key academic program initiatives, financial projections, and capital planning for consideration by the state government as they develop amendments to the biennial budget.

On August 20, 2017, the President, Senior Vice President, and Provost presented the plan to representatives of the Governor's Office, Secretary of Finance, Secretary of Education, Director of Planning and Budget, Executive Director of the State Council of Higher Education in Virginia, Staff Director of the House Committee on Appropriations, and Staff Director of the Senate Committee on Finance. Subsequently, at the October 2017 BOV meeting, the six-year operating plan was approved.

During the second year of the biennium, the Commonwealth requests confirmation and/or minor modifications from agencies. The University received no additional institutional specific questions from the Commonwealth in regards to its Six Year Plan. This will be an update on the University's six-year plan and its key strategies.

*** The Six-Year Plan is for planning purposes only; dependent upon General Fund support and pending BOV approval of future Tuition and Fees.**

STAFF RECOMMENDATION:

Staff recommends Board approval.

ITEM NUMBER III.D.:

DHRM SUCCESSION PLANNING (ACTION)

PURPOSE OF ITEM:

In 2017, § 2.2-1209.C of the Code of Virginia was amended to require that all agencies develop succession plans for key personnel, executive positions, and employees nearing retirement. These plans are due to the Commonwealth's Department of Human Resources Management (DHRM) in October 2018.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

In order to maintain and enhance our future workforce, Human Resources continues to track specific workforce metrics:

- Retention/Turnover Rates
- Retirement Eligibility

Additionally, identifying essential employees that are key to the function of the university and having a strategy in place for the succession of these positions is necessary.

Mason's most essential employees include 34 vice presidents, deans, and other senior leadership positions.

Among these employees, 38% are not eligible for retirement. However, 62% are over 55 years of age. 44% could retire within the next 5 years, with 12% currently eligible to retire.

STAFF RECOMMENDATION:

Staff recommends Board approval.



Executive Summary

George Mason University is an innovative, entrepreneurial institution with national distinction in both academics and research. Mason holds a top *U.S. News and World Report* “Up and Coming” spot for national universities and is recognized for its global appeal and excellence in higher education. We have a strong institutional commitment to the achievement of excellence and diversity among our faculty and staff, and are committed to fostering a workforce that will enrich our academic and culturally inclusive environment.

Human Resources & Payroll supports these university goals while working to support and plan for a changing workforce. In order to accommodate and strategize for our future workforce, Human Resources continues to track specific workforce metrics:

- Retention/Turnover Rates
- Retirement Eligibility

Additionally, identifying essential employees that are key to the function of the university and having a strategy in place for the succession of these positions is necessary. In the following report risk factors, current metrics, and next steps have been outlined.



Risk Factors

- Retirement
 - As the workforce ages, retirements will leave gaps in institutional knowledge which the next generation must be prepared to fill
- Competition
 - Our geographic location presents unique challenges in attracting and retaining talent



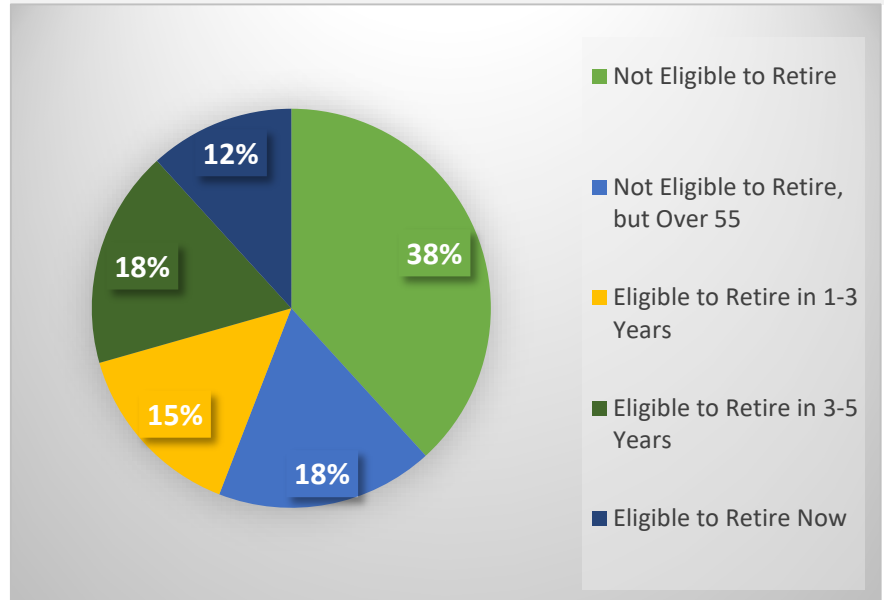
Mason highlighted key personnel critical positions that impact our University’s mission, operations, and student experience. If unfilled, these positions may have a significant negative impact on executing our mission.

Key Observations

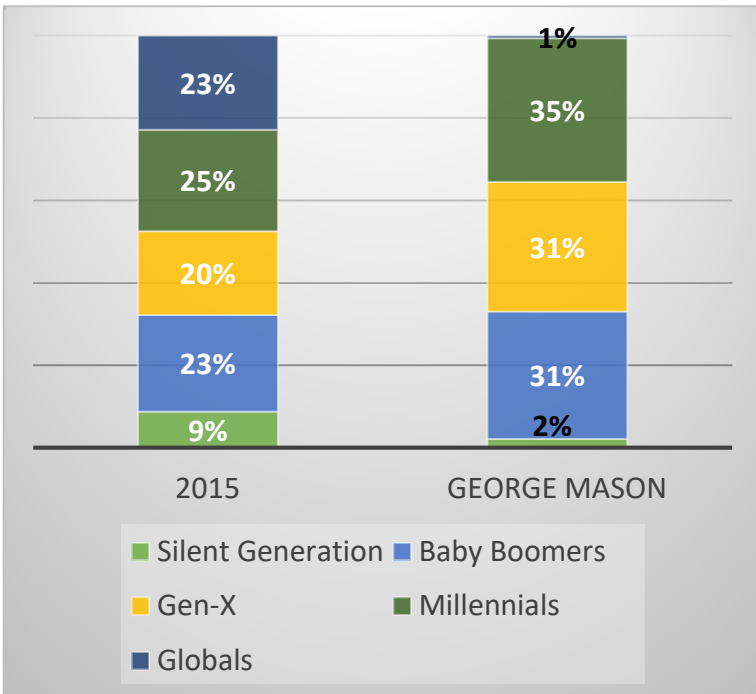
- Mason’s 34 most essential employees include vice presidents, deans, and other senior leadership positions.
- Among these employees, 38% are not eligible for retirement. 62% are over 55 years of age. 44% could retire within the next 5 years, and 12% are currently eligible to retire.
- The dean subset has the most variability and are the most at risk for retirements now and in the next 5 years.
- The majority of the VP subset is not currently eligible for retirement
- 20% of all GMU benefited employees are eligible within 5 years.



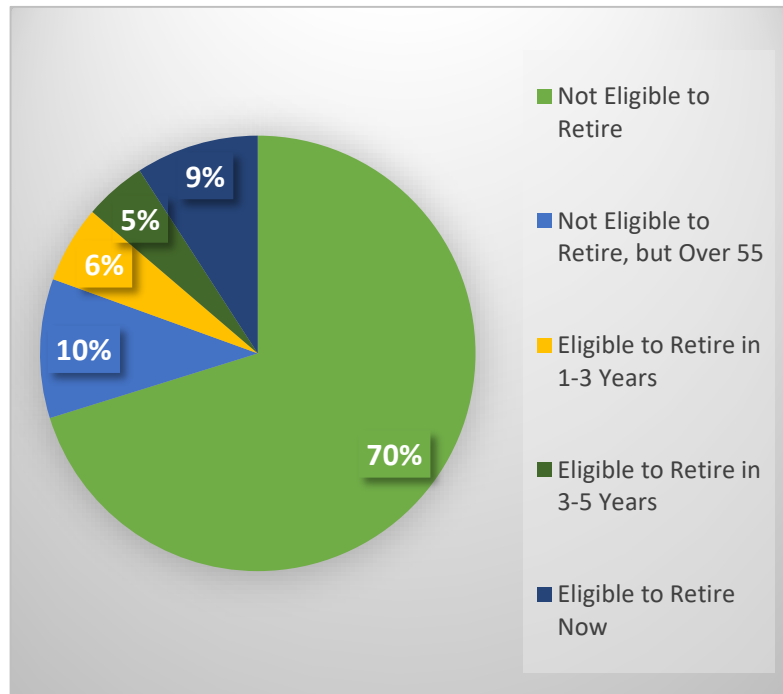
Essential Employees (n=34)



National vs Mason Generational Makeup of Workforce



All Mason Benefited Employees (n=4171)



Plan

Analyze

Design

Implement

Monitor



Action Plans

Short Term:

- Secure senior leadership commitment for succession planning
- Develop viable 1-3 year plan

Long Term:

- Secure senior leadership commitment to help identify critical positions and potential successors
- Define critical positions in the salary action plan
- Focus on training/development of successors, apprenticeship programs, coaching and mentoring, and cross training
- Develop 3-5 year plan

Ongoing Actions:

- Request succession planning organizational charts from units
- Create strategic talent acquisition plan focused on identification of candidates with high professional growth potential



Signatures

SUCCESSION PLAN

§ 2.2-1209. POLICY OF THE COMMONWEALTH REGARDING WORKFORCE PLANNING ISSUES WITH A SUBMISSION OF A SUCCESSION PLAN FOR THE AGENCY/INSTITUTION IN ALIGNMENT OUR ANNUAL STRATEGIC PLANNING CYCLE

To ensure that workforce planning is occurring in tandem with agency strategic planning, and to support the acquisition and sustainment of a resilient workforce, agencies and institutions of higher education must execute, continuously evaluate, and submit an annual succession plan to executive leadership. The plan template was designed by the Department of Human Resource Management and vetted by a state human resources advisory committee. As directed by the legislative mandate, the plan has a threefold focus: mission critical positions; employees nearing retirement; and executive positions.

This Succession Plan serves as the foundation for the continual assessment of workforce risks and accomplishments, and will enable informed executive-level workforce decisions. Plans must be submitted to an agency's Cabinet Secretary or Board of Visitors annually, no later than June 30th of each year.

STATEMENT OF COMMITMENT

George Mason University is committed to the Commonwealth's policy and its efforts to submit a succession plan annually to ensure adequate workforce planning in alignment with the agency or institutions strategic plans.

President, George Mason University

VP HR/Payroll/Faculty-Staff Life

ITEM NUMBER IV.A.:

ACCOUNTS RECEIVABLE WRITE-OFF

PURPOSE OF ITEM

To inform the Board of the need to institutionally eliminate certain accounts receivable from the financial statements, which currently are identified as assets. These receivables have gone through the required collection process but remain uncollected. In accordance with state guidelines and Generally Accepted Accounting Principles (GAAP), these “bad debts” are written off as assets on the financial statements. This is done for accounting purposes only.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

The write-off is .34% or \$1.93M. (approximately three tenths of one percent of FY18 billings)

The University has been successful in the recovery of many of these debts after they were written off. The following analysis highlights the fact that the University has recovered about 38.5% of these debts after write-off.

STAFF RECOMMENDATION:

For Board information only.

STUDENT BALANCES WRITE-OFF

Since 1981 and through FY18, the University has written off delinquent accounts totaling \$16,509,060. Recoveries of \$6,360,873 (38.5% cumulative collection rate as compared to FY17 of 39.5%), reduce the uncollected prior years' balance to \$10,148,186.

WRITE-OFFS AND RECOVERIES

Date	Amount
Write-off FY18	\$1,931,896
Prior Years	\$14,577,164
Cumulative Write-offs	\$16,509,060
Cumulative Recoveries	(\$6,360,873)
Current Write-off Balance (per AR aging 6/30/18)	\$10,148,186

Our policy is to write-off an account after the balance has been delinquent for at least 12 months. Therefore, the write-offs for FY18 are for the revenue recognized for the Summer 2016, Fall 2016, and Spring 2017 terms. The dollar amount is reduced from our receivables on the balance sheet, but collection activity continues on accounts until paid.

Net student account billings for FY18 were \$568,059,791; and the write-off of \$1,931,896, is approximately three tenths of one percent of billings, at .34%, or an effective collection rate of 99.7%. Recoveries of \$609,252 were recognized in FY18, or approximately 31.5% of current period write-offs, as compared to current period write-offs for FY17 of 49%.

Write-Off will:

- Remove the amounts as assets on our financial statements
- Remove the amounts from the calculation of past due accounts receivable

Write-Off will not:

- Remove the financial hold from the accounts
- Remove the accounts from the Tax Set-Off Program
- Impact our efforts to collect the accounts

RECOVERY PROCEDURES – DELINQUENT BALANCES

1. Financial hold placed on account:
 - Prevents future registration
 - Prevents delivery of transcript
2. Collection letters mailed by Student Accounts.
3. Final collection letter mailed containing name and address of external collection agency.
4. Account forwarded to collection agency or Attorney General’s Office and reported to Credit Bureau.
5. Account entered into State Tax Set-Off file.

TOTAL TO BE WRITTEN OFF

	Count	Total
Account balance of \$3000 or greater	199	\$1,620,220
Account balance of \$1000 less than \$3000	144	\$269,836
Account balance of \$100 less than \$1000	88	\$40,923
Account balance less than \$100	55	\$916
Total	486	\$1,931,896

DOMICILE ANALYSIS – ACCOUNTS

	In State	Out of State	Total
FY 2018 Population	325	161	486
Amount	\$927,922	\$1,003,974	\$1,931,896
Percent	48%	52%	100%

ITEM NUMBER IV.B.:

PARENTAL LEAVE POLICY UPDATE

PURPOSE OF ITEM:

With the Governor's recent Executive Order that put into effect a new paid [Parental Leave Policy](#) for benefited classified staff, Mason is introducing a Paid Parental Leave policy for 12-month faculty mirroring the classified policy with a retroactive effective date of 7/1/2018.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

This policy is intended to assist Administrative & Professional, Research, and 12-month Instructional Faculty in managing work and family obligations surrounding the birth or placement of a child for adoption or foster care.

It is the goal of this policy to 1) help faculty balance the responsibilities of family and career development, 2) encourage and enable equal parenting opportunity across all departments, and 3) recognize the benefits to faculty members and their families of meaningful bonding time upon the birth or placement of a child for adoption or foster care.

Eligible full-time faculty members will receive up to eight (8) weeks (320 hours) of paid parental leave to be used within six (6) months of:

- Birth of a newborn child
- Child placement through adoption, foster care, or a legal custodial arrangement.

Eligible part-time faculty members may take up to eight (8) weeks of parental leave. The hours taken will be counted on a pro-rated basis in correspondence to the normally scheduled work for individual employees.

STAFF RECOMMENDATION:

For Board information only.

ITEM NUMBER: IV.C.:

**INVESTMENT PLANNING COMMITTEE
UPDATE**

PURPOSE OF ITEM:

The Investment Policy Statement for the University's Optional Retirement and Cash Match Plans requires that the Investment Policy Committee (IPC) report annually to the BOV the additions, deletions or changes in investment options made available to faculty and staff under the Plans.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

The University provides certain investment options under the Plans. The IPC, with the assistance of an investment consultant, periodically reviews the performance of the funds in the plans to ensure they continue to meet Investment Policy Statement Guidelines. No funds were closed due to performance and/or qualitative issues this past year.

Over the last year, the IPC, along with the University's investment consultant shepherded the following activities:

- Reviewed our Investment Policy Statement, with no changes needed.
- Fidelity merged several Money Market funds.
- Fidelity reduced expenses on their index funds.
- Re-affirmed continued use of the TIAA-CREF and Fidelity Target Date funds.
- There were no fund replacements last year for funds failing to meet policy guidelines.
- Continued exploration of costs on the plans and ways to improve.
- Continued emphasis on retirement through various seminars and other on-campus activities.

STAFF RECOMMENDATION:

For Board information only



Retirement Facts as of 9.18.2018

Retirement Participation

<u>Faculty Enrolled in ORP*:</u>	<u>1,906</u>	<u>82%</u>
TIAA	1,108	58%
Fidelity	798	42%

<u>Fac & Staff Enrolled in Cash Match**:</u>	<u>2,912</u>	<u>70%</u>
TIAA	1,137	
Fidelity	1,553	
ICMA-RC	222	

<u>Faculty Enrolled in VRS*:</u>	<u>411</u>	<u>18%</u>
Instructional	193	47%
Research	13	3%
Administrative	205	50%

<u>Fac & Staff Enrolled in VRS:</u>	<u>2,174</u>
Faculty in Hybrid	52
Faculty in Original	359
Classified in Hybrid	759
Classified in Original	1,004

*Total # of faculty 2,320

**Total # of faculty and staff eligible 4,170- some employees have multiple accounts; duplicate records have been removed

Total Assets: \$473,923,481*

TIAA ORP	\$356,075,756
TIAA Cash Match	\$14,945,004
Fidelity ORP	\$128,001,787
Fidelity Cash Match	\$8,252,448

*As of September 18, 2018

Hardship/Loans Information

# of active loans:	289
# of hardships	8
Active loan balance	\$1,886,849
Hardship amount taken	\$14,015

ITEM NUMBER IV.D.:

**INVESTMENT POLICY: ADOPTION
(ACTION)**

PURPOSE OF ITEM:

To seek Board of Visitors approval of the University's proposed Investment Policy.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

BRIEF NARRATIVE:

The Investment Policy applies to the investment and management of all University's funds not held by the State Treasury, which include both Non-State Funds and Donated Funds. It is a key component of the University's mission, including its value of being a careful steward.

Investment Policy highlights:

- ✓ Non-State Funds are invested in Authorized Investments in a manner to ensure the University's daily cash flow demands are met
- ✓ Donated Funds are transferred to the George Mason University Foundation, Inc. to manage and invest on the University's behalf as the University's agent
- ✓ The Senior Vice President for Administration and Finance will periodically monitor investment results for both Non-State Funds and Donated funds.

STAFF RECOMMENDATION:

The staff recommends BOV approval of this resolution that the University adopts the Investment Policy.

**RESOLUTION
OF THE
BOARD OF VISITORS OF GEORGE MASON UNIVERSITY**

WHEREAS, Investment management is a key component of the University's success and ability to achieve its mission, including supporting its value of being careful stewards.

| **WHEREAS**, the George Mason University Board of Visitors has reviewed the attached Investment Policy.

NOW, THEREFORE, BE IT RESOLVED that the University hereby adopts the attached Investment Policy, effective immediately.

Adopted: October 10, 2018

Tom Davis
Rector
Board of Visitors
George Mason University



University Policy 2116: Investment Policy

Responsible Office: Senior Vice President for Administration and Finance

Related Law & Policy:

[State Depositories, Virginia Code § 2.2-1813 et seq.](#)

[Virginia Security for Public Deposits Act, Virginia Code § 2.2-4400 et seq.](#)

[Investment of Public Funds Act, Virginia Code § 2.2-4500 et seq.](#)

[Uniform Prudent Management of Institutional Funds Act, Virginia Code § 64.2-1100 et seq.](#)

University Policy 1123: Gift Acceptance

I. Scope

This policy applies to the investment and management of George Mason University's funds not held in the State Treasury.

II. Policy Statement

Investment management is a key component of the University's success and ability to achieve its mission, including supporting its value of being careful stewards.

III. Investment of Funds

- A. Non-State Funds shall only be invested in Authorized Investments in a manner to ensure that the current spending requirements of the University are supported and the University's daily cash flow demands are met.
- B. Donated Funds may be transferred to the George Mason University Foundation, Inc. to manage and invest on the University's behalf as the University's agent in compliance with agreement(s) between the University and the Foundation.

IV. Definitions

- A. **State Funds:** State Funds include tuition and fees, auxiliary enterprises and federal and other monies used for current operations which are deposited into the State Treasury.

- B. **Non-State Funds:** Funds held by the University that do not meet the definition of State Funds and are not transferred to the Foundation. These are also known as local funds.
- C. **Donated Funds:** Endowment funds, bequests, or gifts made payable to the University.
- D. **Authorized Investments:** Certificates of deposits, U.S. Treasury Bonds and Money Market Funds

V. **Compliance:** The Senior Vice President shall routinely monitor and evaluate investment results of all Non-State Funds and Donated Funds.

VI. Dates:

A. **Effective Date:**

This policy will become effective upon the date of approval by the Board of Visitors.

B. **Timetable for Review**

This policy shall be reviewed every three years or more frequently as needed.

ITEM NUMBER: V.A.:

LAND USE CERTIFICATION (ACTION)

PURPOSE OF ITEM:

This items requests BOV certification that the university has a need for the land it owns.

APPROPRIATE COMMITTEE:

FINANCE AND LAND USE

Virginia Code §2.2-1153 requires agencies and institutions to submit a Land Use Plan annually to the Department of General Services (DGS) showing present and planned uses of each property owned. This is primarily for the purpose of identifying whether the Commonwealth should declare any such property surplus. The code requires certification by the Board of Visitors.

In order to comply, the Department of General Services (DGS) requested institutions and agencies update the DGS database provided on the attached spreadsheet. The attached spreadsheet provides the land use information requested by DGS. Note this report does not include land owned by the George Mason University Foundation which may in the future be transferred to the university. For this reason, the report does not address the 37 acres in Loudoun County or the additional 80 acres at Point of View in Fairfax County.

The report accurately reflects current land use for the university-owned properties.

The significant changes since last year's report are completion of the Peterson Family Health Sciences Hall, the Potomac Science Center and Mason Ferry Garage. In addition, three easements were added to the Main Campus at Fairfax.

STAFF RECOMMENDATION:

Approve submission of the attached spreadsheet to DGS.

Siteld	Agency Code	Agency Land	Name	Land Address 1	Land City	Postal Code	Country Code	Fips Code	Acreage	Comments	Building Demolished	Land Acquired	Land Disposed	Structure Planned	Structure Added	Structure Sold	Building Fully Occupied	Easements	Agency Surplus Designation	Existing Building	Building Occupied By Other Agency
S-000305	247	247-GMU	GMU MAIN CAMPUS FAIRFAX CO	4400 UNIVERSITY DR	FAIRFAX	22030	USA	FAIRFAX COUNTY - 059	564.66	0034 ROBINSON HALL IS PLANNED FOR DEMOLITION - A NEW ROBINSON HALL BUILDING IS PLANNED TO BE CONSTRUCTED IN ITS PLACE SCHEDULED TO BE COMPLETE BY 2021 0126 PETERSON FAMILY HEALTH SCIENCES HALL WAS COMPLETED FOR SPRING 2018 0041 0042 0043 0044 0045 0046 0047 0048 0049 - HOUSING I BUILDINGS 1 2 3 4 5 6 7 8 9 ARE DEMOLISHED	YES	NO	NO	YES	YES	NO	NO	3	IN USE	102	YES
S-000306	247	247-GMU	GMU METRO CAMPUS LAW SCHOOL ARLINGTON CO	10900 UNIVERSITY BLVD	MANASSAS	20110-2201	USA	ARLINGTON COUNTY - 013	5.08	SITE ADDRESS AND LAND CITY AND POSTAL CODE ARE INCORRECTLY LISTED: CORRECT INFORMATION: 3351 NORTH FAIRFAX DRIVE ARLINGTON 22201 0039 - ARLINGTON ORIGINAL BUILDING PLANNED TO BE DEMOLISHED AT FUTURE UNDETERMINED DATE - DEPENDS ON FUNDING CURRENTLY OFF LINE	NO	NO	NO	NO	NO	NO	NO	0	IN USE	3	YES
S-000307	247	247-GMU	GMU WOODLAND ACRES PROPERTY FAIRFAX CO	BRADDOCK AND SHIRLEY GATE RDS	FAIRFAX COUNTY	22030	USA	FAIRFAX COUNTY - 059	87.03		NO	NO	NO	NO	NO	NO	NO	0	FUTURE USE	0	NO
S-000308	247	247-GMU	GMU TALLWOOD FAIRFAX CITY	4210 ROBERTS RD	FAIRFAX	22032-1028	USA	FAIRFAX CITY - 600	7.06		NO	NO	NO	NO	NO	NO	YES	0	IN USE	4	YES
S-000309	247	247-GMU	GMU PRINCE WILLIAM CAMPUS PRINCE WILLIAM CO	10900 UNIVERSITY BLVD	MANASSAS	20110-2203	USA	PRINCE WILLIAM COUNTY - 153	136.29	0507 BULL RUN HALL - AN ADDITION IS PLANNED 0509 HYLTON PERFORMING ARTS - AN ADDITION IS UNDER CONSTRUCTION	NO	NO	NO	YES	NO	NO	YES	0	IN USE	12	YES
S-001250	247	247-GMU	GMU POINT OF VIEW SITE	7301 OLD SPRING DR	LORTON	22079	USA	FAIRFAX COUNTY - 059	44.59		NO	NO	NO	NO	NO	NO	YES	0	IN USE	5	NO
S-015577	247	247-GMU	GMU POTOMAC SCIENCE CENTER PRINCE WM CO	BELMONT BAY	WOODBIDGE	22191	USA	PRINCE WILLIAM COUNTY - 153	2.22	0900 POTOMAC SCIENCE CENTER AND 0901 MASON FERRY GARAGE WERE SUBSTANTIALLY COMPLETE FALL 2017	NO	NO	NO	NO	YES	NO	YES	0	IN USE	2	NO

Appendix A: Capital Projects Review

This section provides the regular report on the status of capital construction projects on all three university campuses. The project “stoplight” chart provides a summary review. For purposes of black and white printing, all stoplights are “Green” unless otherwise noted. Scoring definitions:





































- “Red”: Likely to exceed approved budget, schedule, or scope
- “Yellow”: At risk to exceed approved budget, schedule, or scope, but can still recover
- “Green”: Within approved budget, schedule, or scope
- “White”: on-hold

Changes/updates since the April 2018 report include:

- Health Sciences – Academic VII –We are currently in the closeout phase of the main project. The construction of the MRI suite is completed and is in the close-out phase.
- Construct/Renovate Robinson Hall, New Academic and Research Facility and Harris Theater - Phase 1 work which includes Robinson B and Harris Theater enabling projects, asbestos abatement and demolition of Robinson A, site utility relocations and mass excavation and sheeting and shoring for the new academic building site, has commenced and will be complete by March 1, 2019. Phase 2/3 working drawings will be submitted for final permit review and bidding by mid-September. We anticipate work on Phase 2 will begin late February 2019.
- Improve Utility Distribution Infrastructure Fairfax - The full GMP for this project has been awarded and work has commenced on phases 1A (near Thompson Hall), 1B (south of Johnson Center) and 1C (Patriot Circle to Eagle Bank Arena). This work will be completed by end of this calendar year and will be followed by the start of work in phases 2A (south of College Hall and Buchanan Hall) and 2B (south of West Building) at Christmas break. PPEA Discovery Hall Ph. II & Fitout/Clean Room –The Certificate of Occupancy for the Fitout project was received May 2018. The Clean Room Project is in design. Occupancy is estimated for January 2020.
- Into Phase II –The project was completed in time for the Fall 2018 semester.
- Eagle Bank Arena – The lighting replacement project has been completed and closed. The scoreboard replacement project has been completed and closed. The roofing replacement project is under construction but the schedule has been hampered by weather delays. The media and dressing rooms renovations are substantially complete. The locker room replacement is under construction.
- Hylton Performing Arts Center Addition – Budget issues have been resolved and construction is underway. Construction is scheduled to be completed by August 2019.

- Telecom Infrastructure – The University has selected an Architect/Engineer for this project specializing in IT infrastructure projects and is in the negotiation phase of procurement. Design work should commence shortly.
- Bull Run Labs (Mech and BioChem) – Mech Lab is complete and operational. BioChem Lab renovations will be completed for the Spring 2019 semester.

Facilities Projects Listing




Project #	Project Name	Scope(sf) New	Scope(sf) Reno	Total Budget	Budget Status	Schedule	Scope	Construction Start date	Occupancy date	Construction % Complete
Construction										
17999-000	Health Sciences - Academic VII (Peterson Hall)	164,880		\$ 71,198,234				6/2/2015	1/8/2018	99%
A6247-020	Into Phase II		16,555	\$ 3,400,000				12/15/2016	7/15/2018	75%
Varies	Bull Run Labs (Mech and BioChem)		7,204	\$ 3,000,000				3/15/2017	1/15/2019	70%
Varies	Eagle Bank Arena Upgrades		82,000	\$ 4,845,000				12/1/2016	11/1/2018	45%
18011-000	Hylton Center Addition*	17,082	360	\$ 13,481,383				8/1/2018	8/1/2019	8.00%
18207-000	Renovate Robinson Hall and Harris Theater (Phased)*	217,726	23,161	\$ 119,631,000				7/1/2018	12/31/2021	0.00%
18208-000	Improve Utility Distribution Infrastructure Fairfax (Phased)*			\$ 51,539,000				8/1/2018	12/31/2021	0.00%
Design										
17848-000	PPEA Discovery Hall Ph II & Fitout/Clean Room	18,000		\$ 6,115,000				2/25/2019	1/15/2020	N/A
Planning										
18000-000	Life Sciences - Bull Run Add DPB*	100,000	5,000	\$ 64,000,000				TBD	TBD	N/A
18339-000	Telecom Infrastructure*			\$ 10,053,000				TBD	TBD	N/A
A8247-027	Johnson Center HVAC Repairs			\$ 3,049,500				TBD	TBD	N/A
A8247-024	Hylton Center HVAC Repairs		112,352	\$ 4,025,000				TBD	TBD	N/A
Grand Total This Report		517,688	246,632	354,337,117						

Data as of September 2018

* Pool Funded Project; will require DPB/BCOM approval for release of funds after Preliminary Design

Page 1 of 1

FUND SOURCE KEY
RB: Revenue Bond
GF: General Fund
VDOT: Virginia Dept of Transportation
CNTY: Fairfax County
SGR: Self Generated Revenue
SF: Student Fee
UM: University Mall
GIFT: Private Gifts
MR: Maintenance Reserve
ICR: Research Indirect Cost Recovery

STOPLIGHT KEY
 Red: Likely to exceed approved budget/schedule/scope
 Yellow: At risk to exceed approved budget/schedule/scope
 Green: Within approved budget/schedule/scope

Appendix B
Unaudited FY 2018 Financial Statements

To provide the Board information regarding the University's annual financial statements.

The University's unaudited financial statements will be submitted to the Commonwealth's Department of Accounts prior to November 1, 2018 and are posted in Draft at:

<https://fiscal.gmu.edu/generalaccounting/review-financial-statements/>

The audit is typically conducted during January through April each year.

Board of Visitors

Finance and Land Use Committee George Mason University

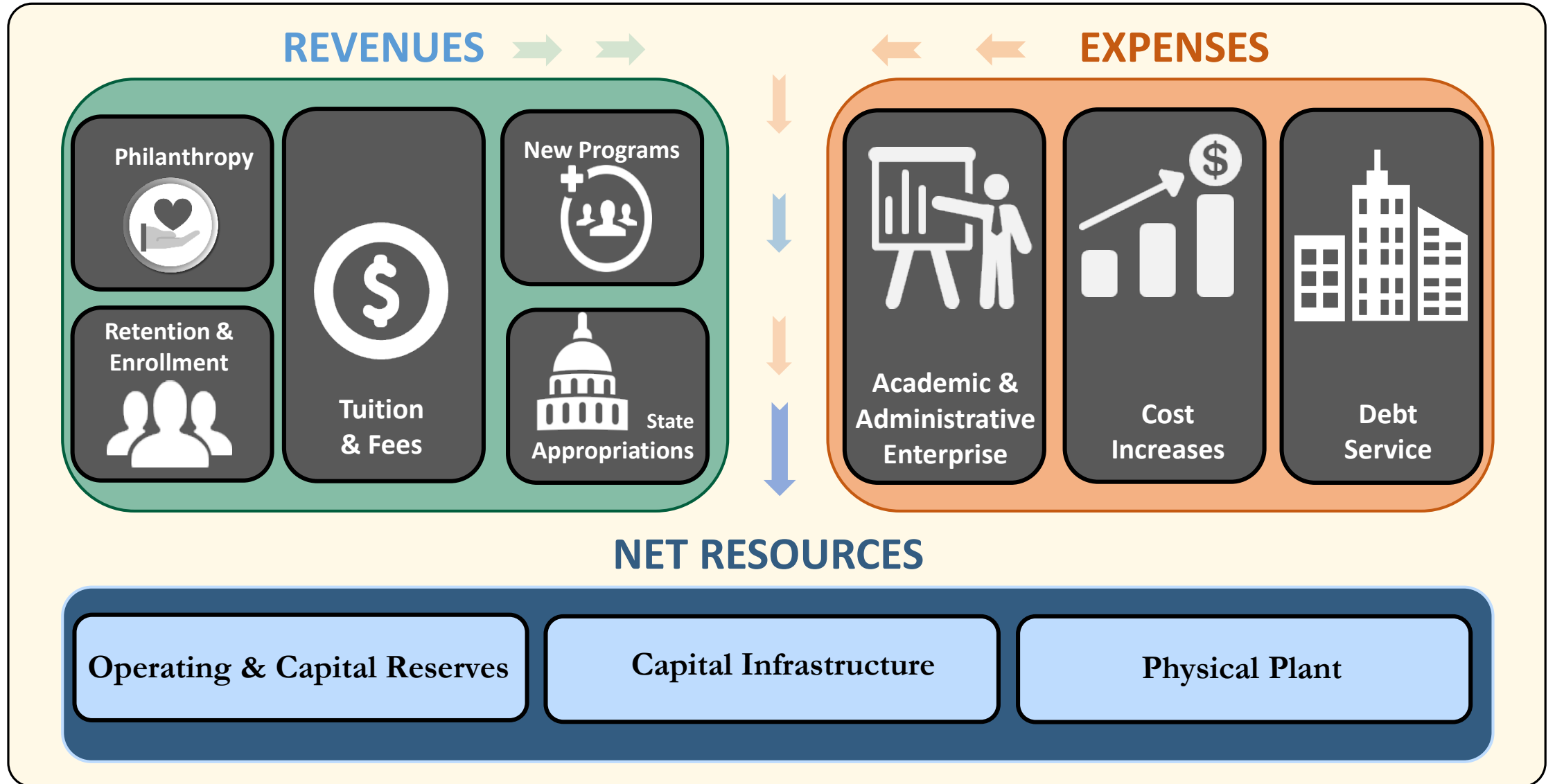
Office of the Senior Vice President

October 10, 2018

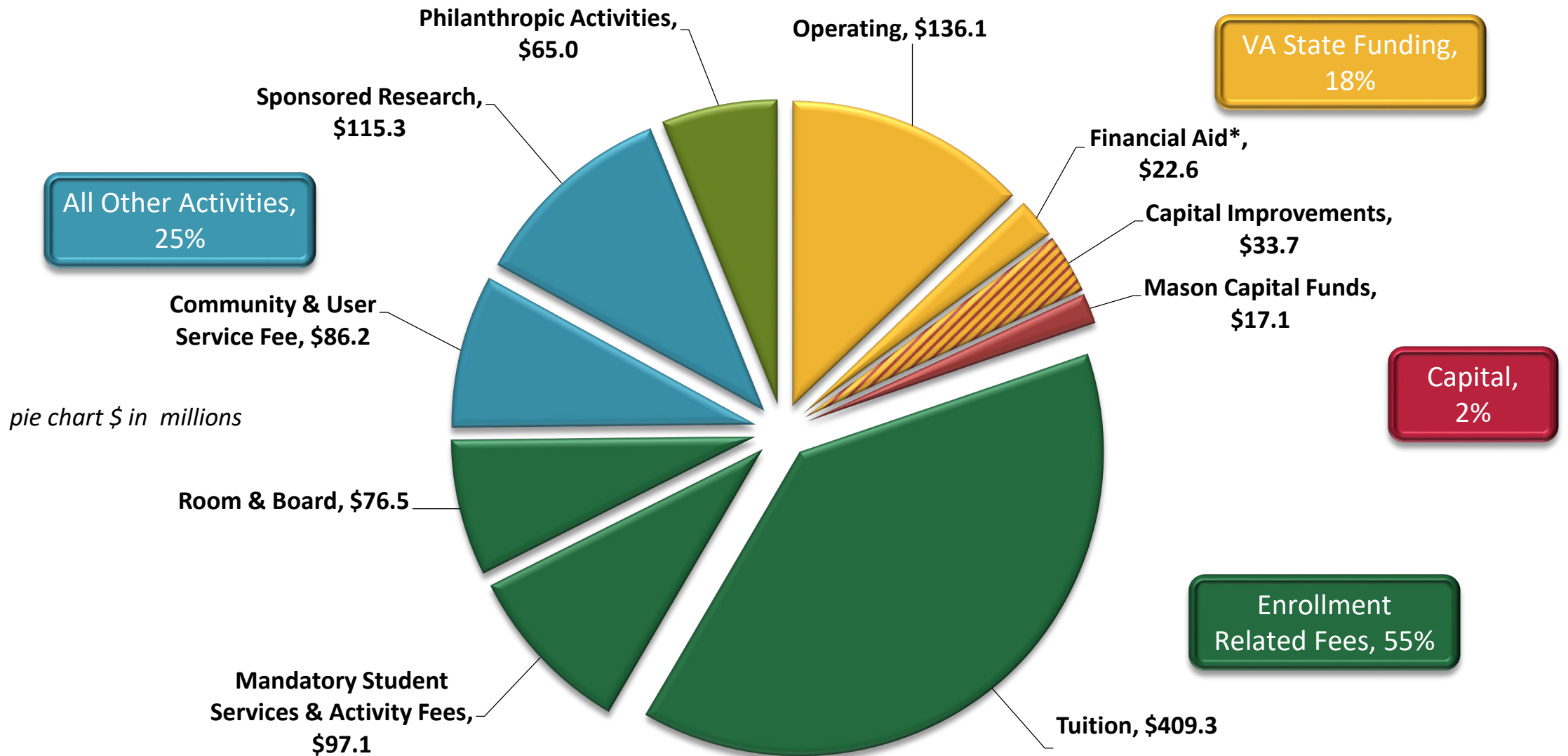


New Business

FY 2019 Financial Overview



FY 2019 Revenue Budget \$1.06B



Compensation & Benefits Update

Employee Bonus

- Late November, 2018
- Evaluations must be Complete

Pay Increase

- June, 2019

Parental Leave

Gallup Strengths Finder

- Discovery Tool for Mason students, faculty and staff

BurnAlong

- Streaming fitness classes
- Pilot program launches soon!

Mid-Atlantic HERC

- Lead Institution for Recruiting Consortium
- Recruitment of Diverse and Inclusive Talent

Campus Update



FY 2018 Financials & Metrics

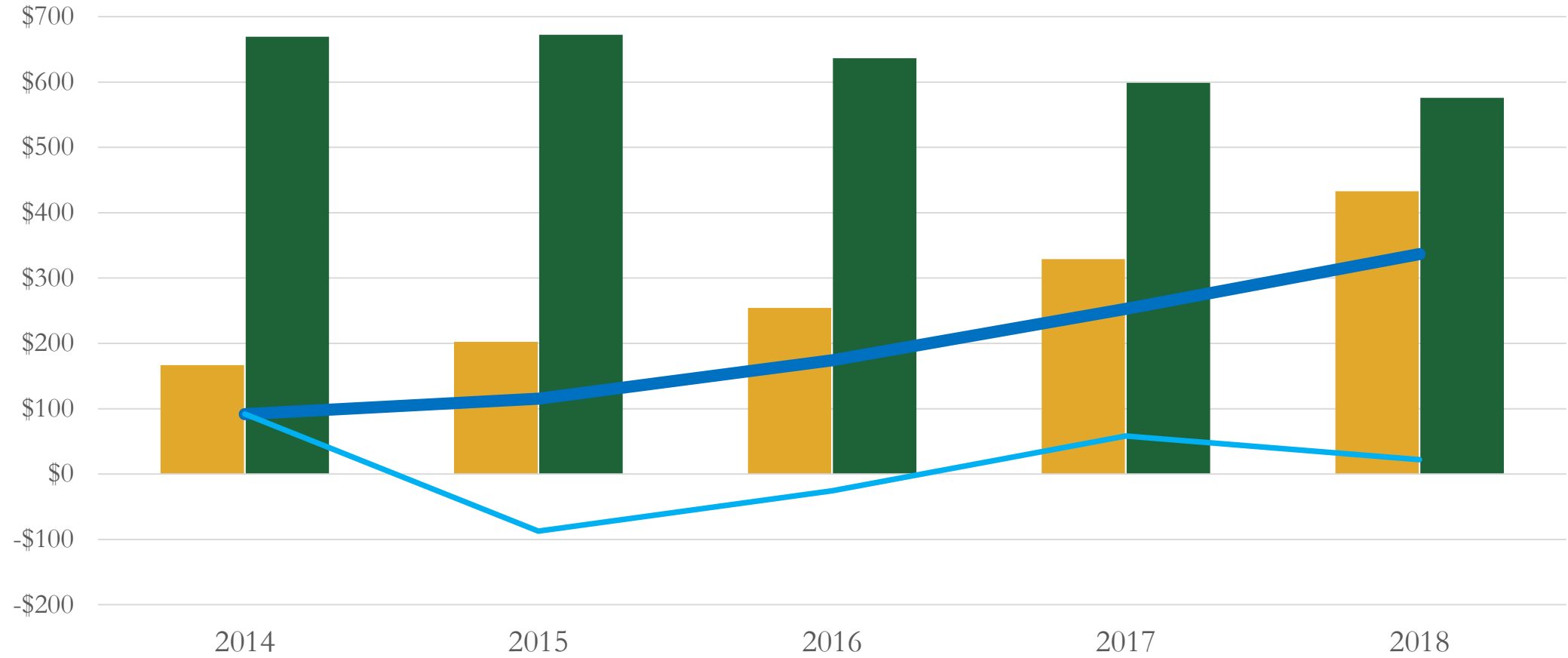
Future Financial Considerations

Unaudited Financial Statements June 30, 2018

OVERVIEW

- University FY18 unaudited financial statements available:
<https://fiscal.gmu.edu/generalaccounting/review-financial-statements/>
- GASBS 75 - recorded net postemployment benefits other than pensions liability (OPEB):
 - Prior year ending net position restated downward \$122.5 million
 - Net OPEB liability at June 30, 2018 is \$119 million
- Highlights for the year:
 - Total operating revenues increased by \$55.1 million, or 8%
 - Total operating expenses increased by \$55.4 million, or 7%
 - Net position for FY18 operations increased by \$93.9 million
 - Unrestricted net assets decreased by \$38.9 million to \$19.4 million

George Mason University Statement of Net Position 2014-2018

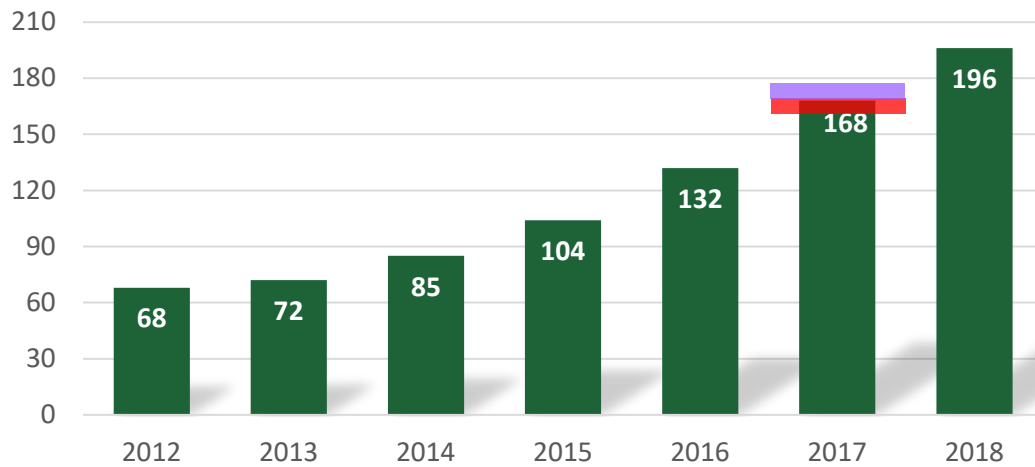


■ Cash & Cash Equivalents ■ Long Term Debt ■ Unrestricted Net Assets (adj.) ■ Unrestricted Net Assets

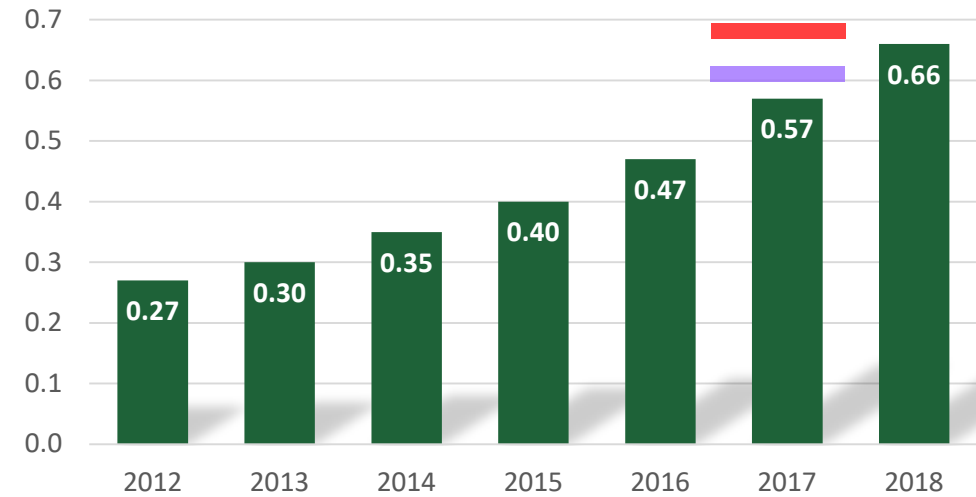
George Mason University Financial Ratios – Operating

- Benchmark : Moody's Public University 2017 Medians "A1" Rating Category
- Benchmark : Moody's Public University 2017 Medians "Aa3" Rating Category - Tier III

Annual Days Cash on Hand
(Annual Liquidity/Operating Expense)



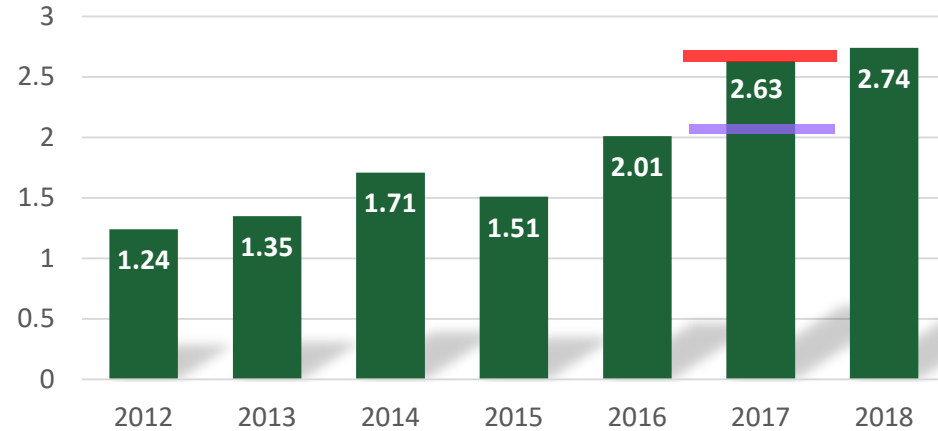
Operating Reserve
(Spendable Cash & Investments / Operating Expenses)



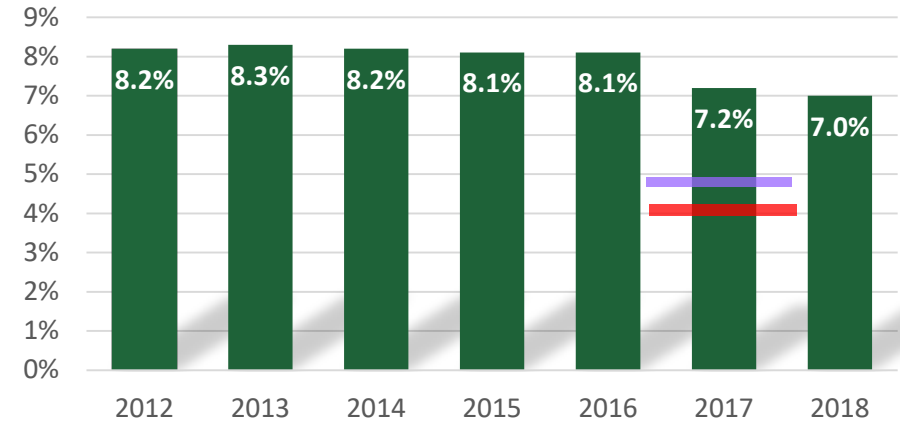
George Mason University Financial Ratios – Debt

- Benchmark : Moody's Public University 2017 Medians "A1" Rating Category
- Benchmark : Moody's Public University 2017 Medians "Aa3" Rating Category - Tier III

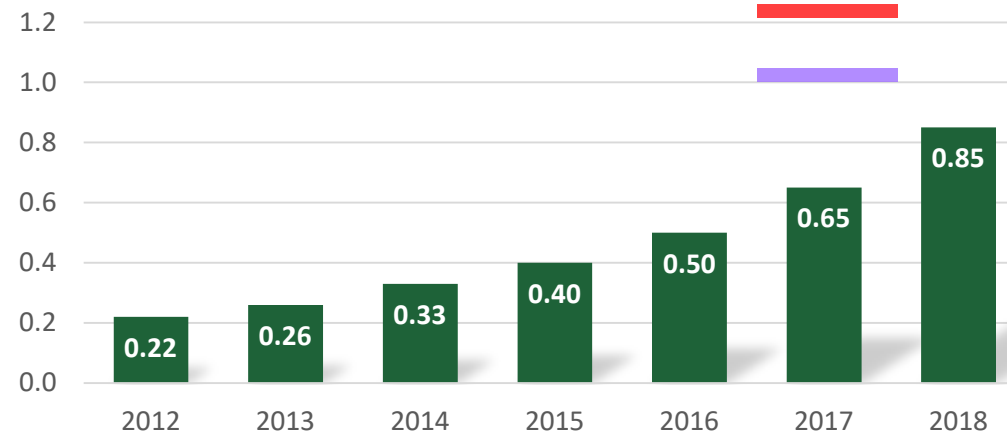
Debt Service Coverage
(Operating Surplus/Debt Service)



Debt Service to Operations
(Debt Service/Operating Expenses)



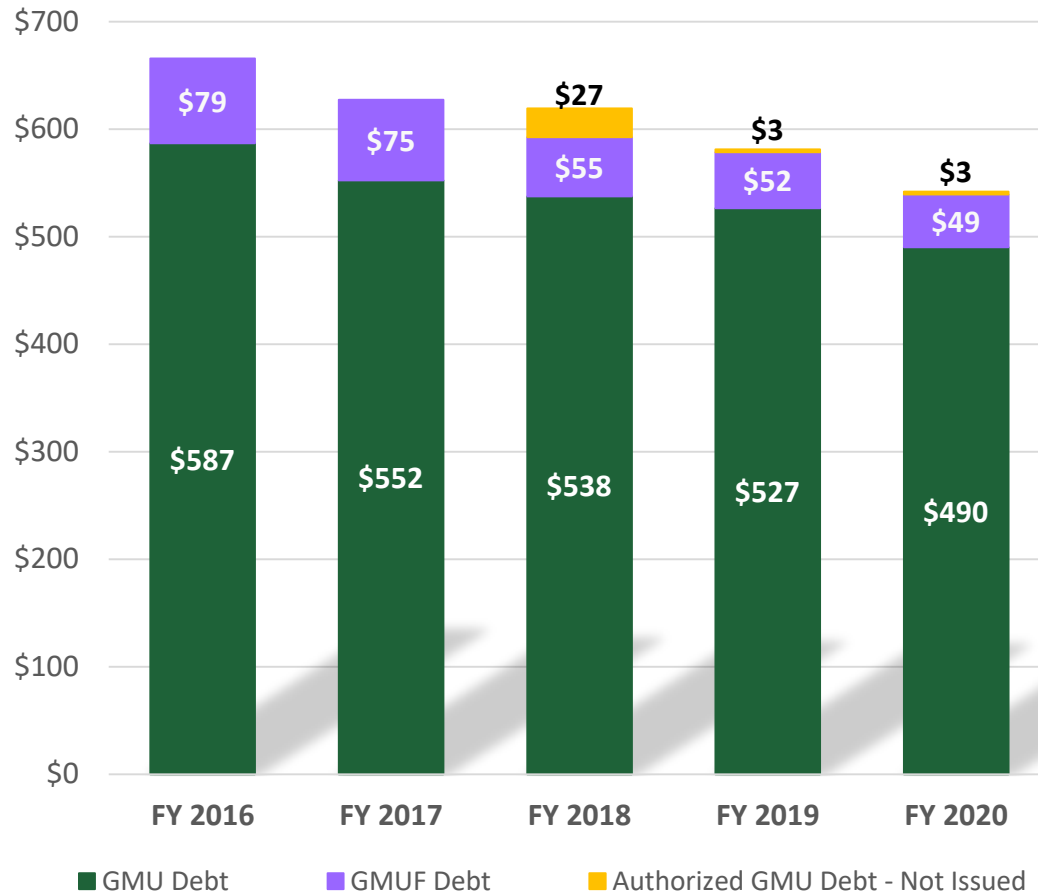
Financial Leverage
(Spensible Cash & Investments / Total Debt)



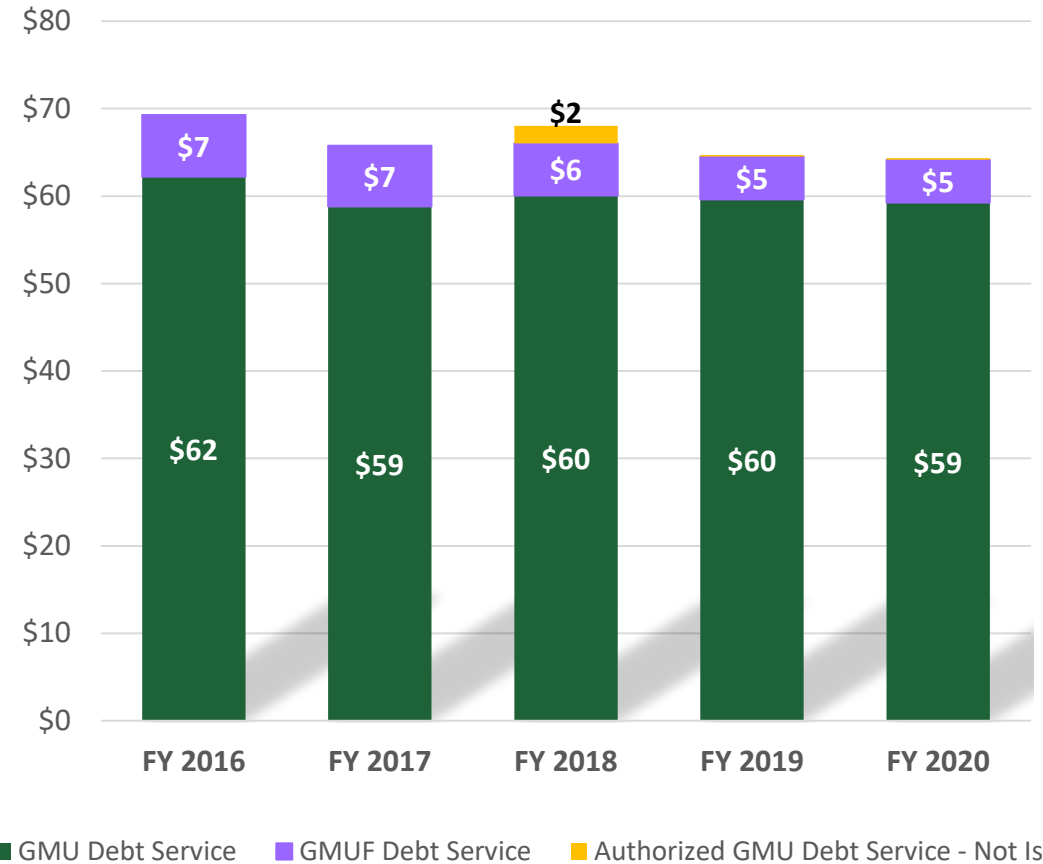
2018 ratios based on unaudited financials

Enterprise Debt: GMU & GMUF

Principal Balance
Actual & Projected as of 6/30/18



Annual Debt Service
Actual & Projected as of 6/30/18

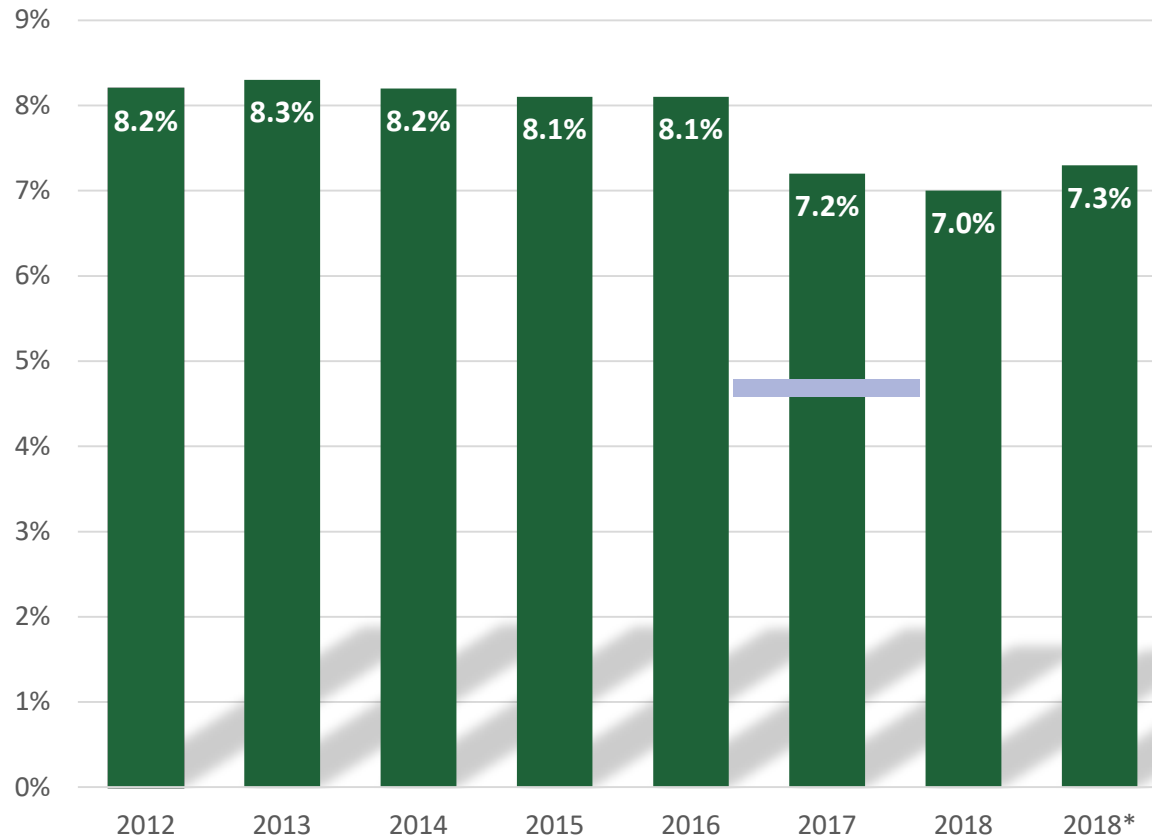


dollars in millions

\$24m for Utility Infrastructure and \$2.6m for Robinson

George Mason University Debt Service Burden

Debt Service to Operations (Debt Service/Operating Expenses)



- ✓ A1 rating for GMUF PW Lab Bonds
- ✓ A1 rating debt service burden median is 4.8%

Rating	Debt Service Burden FY 2017 Moody's Median
Aa3	4.3%
A1	4.8%

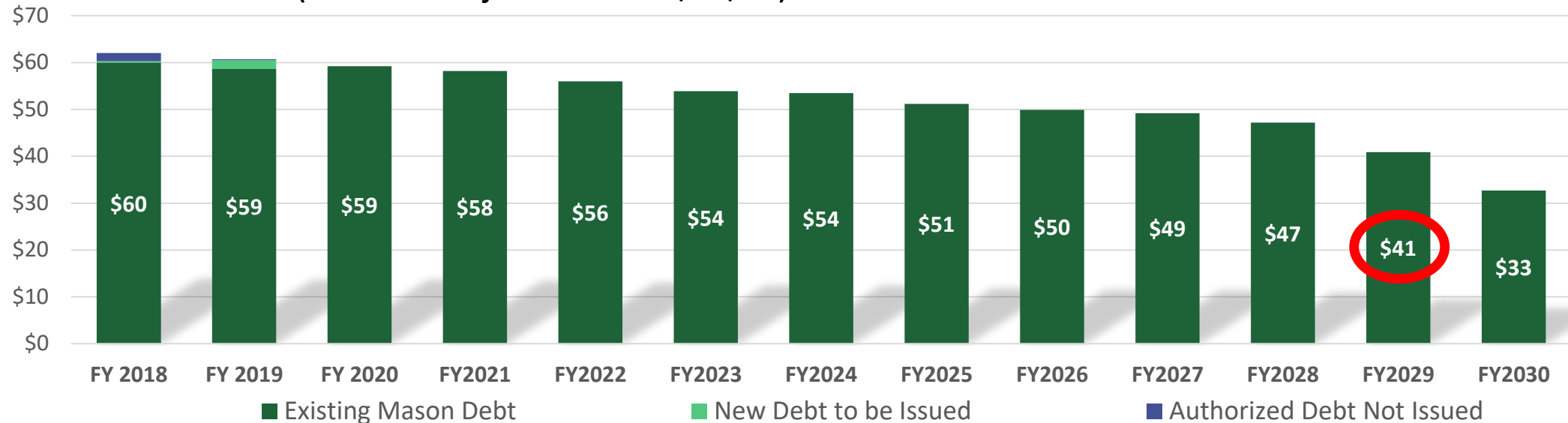
- ✓ GMU debt burden ratio:
 - 7.0% in FY18
 - * 7.3% in FY18 and \$24m new debt

George Mason University Debt Service Burden

- ✓ A1 rating debt service burden FY17 median is 4.8%
- ✓ In 2029, GMU annual debt service \$41M is 5% debt service burden

Debt Service Burden Median	Annual Debt Service	Year
7.0%	\$60 m	2018
6.0%	\$49 m	2027
5.0%	\$41 M	2029
4.0%	\$33M	2030

Annual Debt Service (Actual & Projected as of 9/15/18)



Going Forward

Debt and Rating Agency Considerations

- ✓ Rating agency aware of Utility Infrastructure Project 9d GMU debt issuance
 - Moody's Rating surveillance/review Fall 2018/Winter 2019
 - S&P Rating surveillance/review Spring 2019

- ✓ Other key projects requiring GMU 9d debt:
 - Submitted Capital Budget Request to State in fall 2018
 - \$19.1m = Telecom Phases 2 & 3
 - \$44.4m = Academic 8

Going Forward

Legislative Authority Now

Tier 2 - Information Technology and Procurement

- ✓ Only Tier 2 managing its own faculty retirement plan

5-Yr Pilot Authority July 1, 2016 - Financial Management Operations
Capital Outlay & Real Property (excluding Leases)

- ✓ Enhanced Disbursement & Travel Policies
- ✓ Approval for Non-General Fund Capital Projects shifted onto Senior Management and Board
- ✓ Internal Capital Project Management System

Going Forward

Legislative Authority Future?

Tier 3 – Highest level of autonomy provides universities with flexibility and status to perform additional operational functions:

- ✓ Division of Engineering and Buildings (DEB)
- ✓ Capital Lease execution
- ✓ Debt issuance
- ✓ Cash management and investment
- ✓ Risk Management and Insurance
- ✓ HR autonomy for compensation, classifications, and performance management
- ✓ Protection from legislative changes affecting retirement plan

Going Forward

Considerations

Requires at least AA- received last 3 years of date of initial management agreement

OR

Pilot participation in areas of Finance and Capital Outlay

- i. Demonstrated management competency in 2 areas
- ii. Received restructured operational authority under MOU (not required under Pilot) in at least 1 functional area and demonstrated competency for 2 years

There are various other legislative and administrative approval and requirements

There may or may not be added value in all areas of authority – short term?/long term?

Pilot partner (JMU) has now received an AA- and will be pursuing Tier 3!

Bond Issuance - Utilities Infrastructure

Utilities Distribution Infrastructure Project – 9d Bond Resolution

- ✓ This Bond Financing issued through the Virginia College Building Authority (VCBA) is scheduled to close December 2018.
- ✓ VCBA will sell Revenue Bonds for the aggregate principal amount of \$24.1 M plus financing costs which shall in no event exceed \$25.0M. This will be for the construction phase of the project.
- ✓ Currently, project cost is to be paid jointly by the State and the University. The University's 9d bond funding authorization in 2016 Chapter 780 is \$25.228 M and 2018 Chapter 2 is \$5.381M.

Board Resolution

The Finance & Land Use Committee recommends approval by the Board of Visitors of the financing resolution that includes the following:

1. The University is hereby authorized to enter into the Loan Agreements and Promissory Notes with the Virginia College Building Authority (VCBA) for the aggregate principal amount of \$24.1M and the financing costs which shall in no event exceed \$25.0m for the Utilities Distribution Infrastructure capital project (#18208).
2. The Senior Vice President for Administration and Finance is hereby authorized and directed to approve, execute and deliver all documents necessary to effectuate this Bond Financing through VCBA.

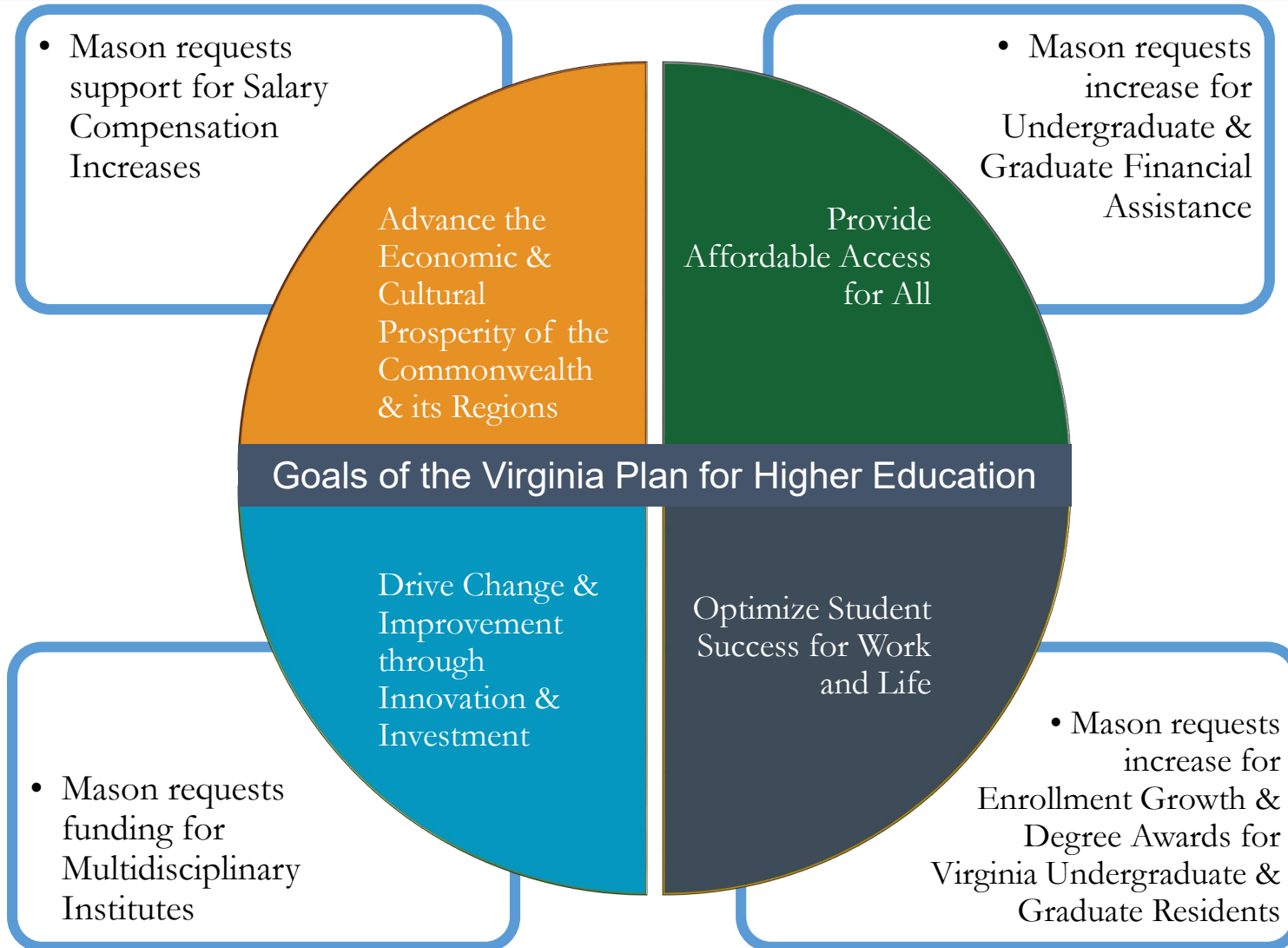
MOTION: _____

SECOND: _____

Six-Year Plan Priorities & Strategy



Aligns with Goals of Virginia Plan



Provide Affordable Access for All Students

Mason Priority 1

Virginia Plan Goal 1

Strategy 1: Mason must make available additional student aid resources at both the undergraduate and graduate levels.

FY 2020 Request: \$6.5M General Fund, \$1M Nongeneral Fund

Support Salary Compensation Increases

Mason Priority 2

Virginia Plan Goal 3, 4

Strategy 8: Mason must recognize high-quality faculty and staff by providing an annual merit based salary increase.

FY 2020 Request: \$18.0M General Fund, \$9.0M Nongeneral Fund

Enrollment Growth & Degree Awards for VA

undergraduate and graduate residents

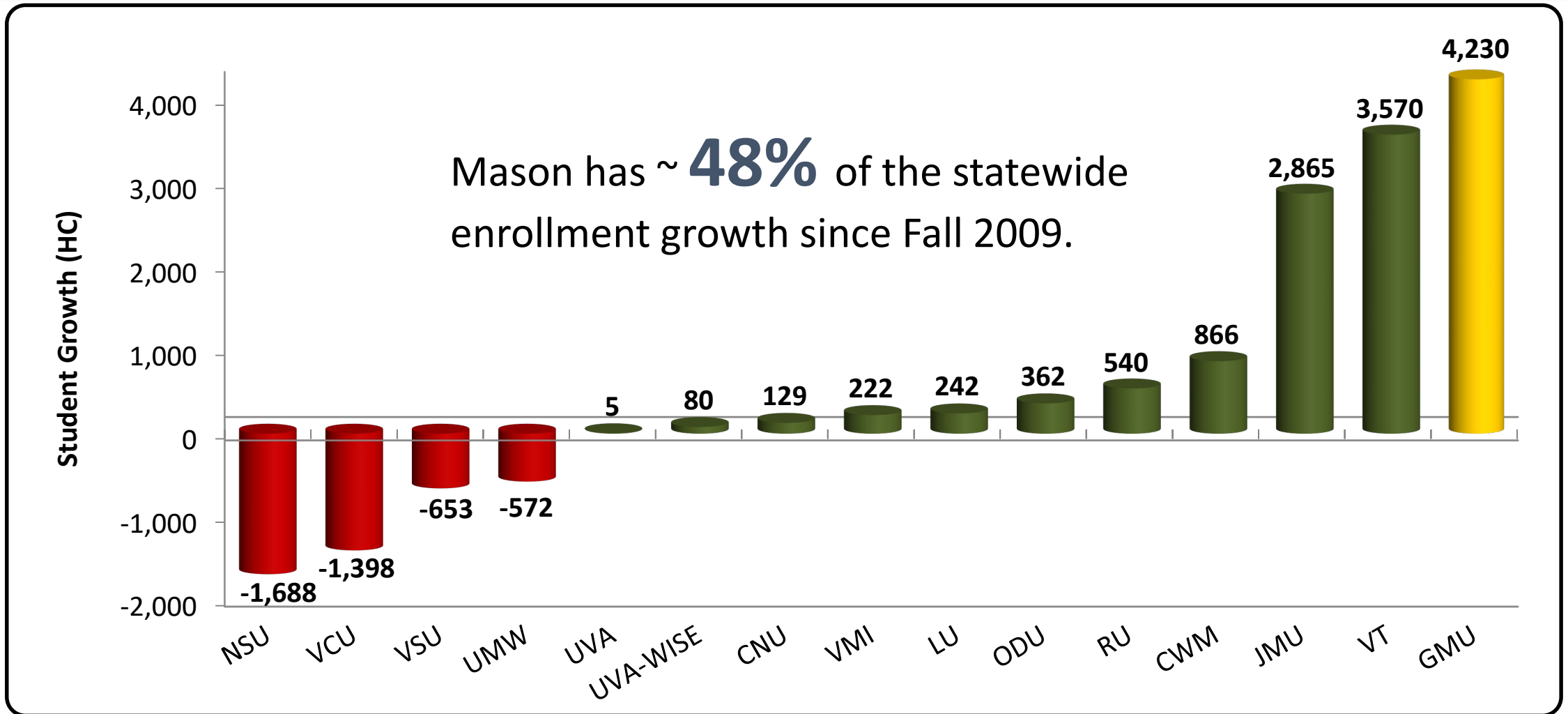
Mason Priority 3

Virginia Plan Goal 1, 2, 4

Strategy 2: Mason seeks equitable resources for past enrollment growth.

FY 2020 Request: \$17M General Fund, \$6M Nongeneral Fund

Student Enrollment Growth



Virginia public institutions of higher education student growth (headcount) Fall 2009 – Fall 2017

Multidisciplinary Institutes

Mason Priority 4

Virginia Plan Goal 3, 4

Strategy 11: To promote innovation and job creation, Mason will establish additional multidisciplinary institutes.

FY 2020 Request: \$2.75M General Fund, \$1.25M Nongeneral Fund

Board Recommendation

The Finance & Land Use Committee recommends approval by the Board of Visitors of the University's 2018 Six-Year Operating Plan.

MOTION: _____

SECOND: _____

DHRM Succession Planning

Succession Planning

To maintain and enhance our future workforce, HR tracks:

- Retention/Turnover Rates
- Retirement Eligibility

DHRM Requirement:

- Identify essential employees that are key to the function of the university
- Have a strategy in place for the succession of these positions

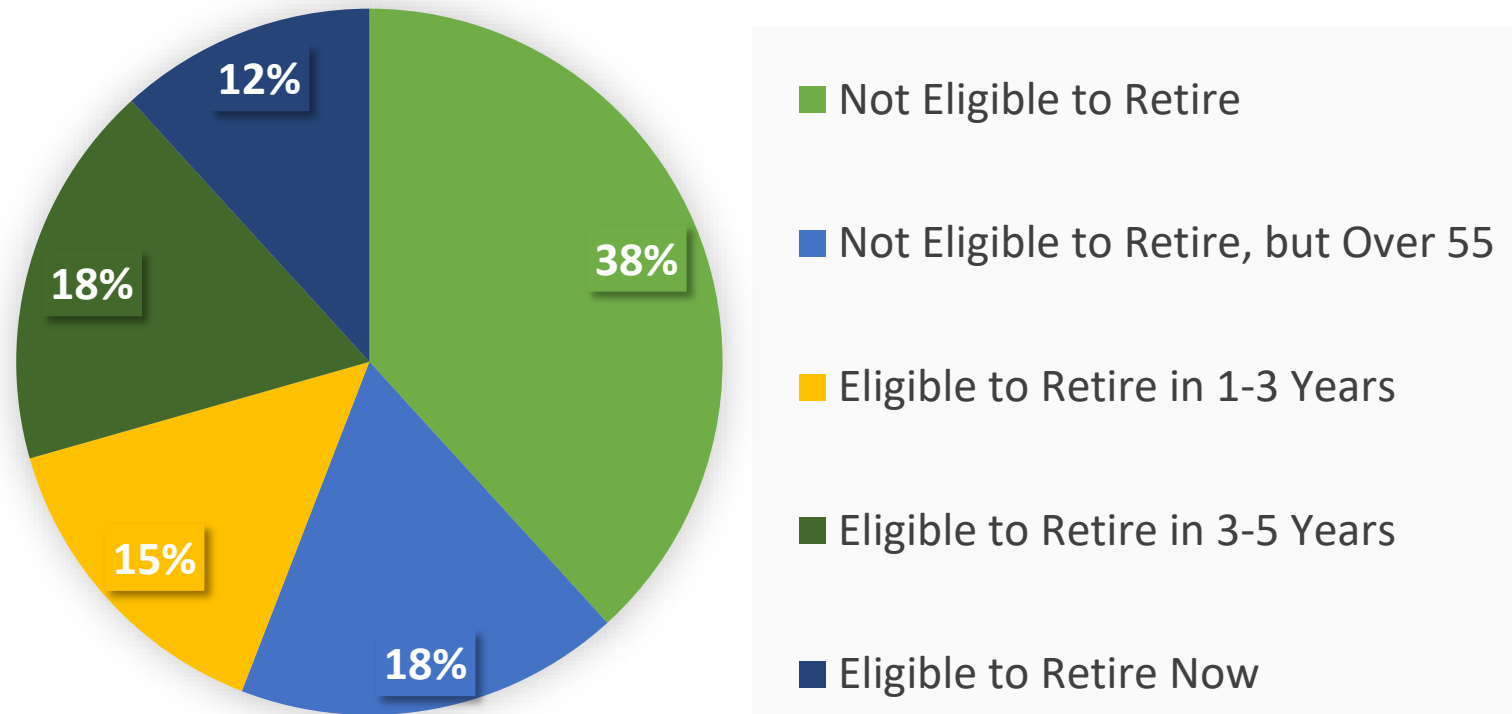
Mason's Succession Plan Data

Essential Employees:

- Mason's most essential employees include 34 vice presidents, deans, and other senior leadership positions
- 62% are over 55 years of age

Risk Factors:

- Retirement
- Competition



Mason's Action Plan

Short Term:

- Secure senior leadership commitment for succession planning
- Develop viable 1-3 year plan

Long Term:

- Secure senior leadership commitment to help identify critical positions and potential successors
- Define critical positions in the salary action plan
- Focus on training/development of successors, apprenticeship programs, coaching and mentoring, and cross training
- Develop 3-5 year plan

Ongoing Actions:

- Request succession planning org charts from units
- Recruit with an eye towards hiring candidates with growth potential

Board Recommendation

The Finance & Land Use Committee recommends approval by the Board of Visitors of the University's Succession Plan, as outlined in the Board Book.

MOTION: _____

SECOND: _____

Operational Issues

Accounts Receivable Write-off

Annual Report to BOV

FY 2018 Student Account Billings increased
8.6% to \$568M

Collection Rate of 99.7% remains consistent
with prior years

Cumulative recovery of amounts written off
since 1981 is 39%

Mason Parental Leave Policy

Parental Leave Policy Update

Fall 2017: Mason Parental Leave Policy for 9-Month Faculty

Summer 2018: Commonwealth of VA Governor Executive Order - Parental Leave Policy for Classified Staff

Fall 2018: NEW Parental Leave Policy for 12-Month Faculty

Mason Investment Planning Committee Update

Annual Investment Planning Update

Total Assets: \$473.9M

TIAA Optional Retirement Plan (ORP)	\$356.1M
TIAA Cash Match	\$14.9M
Fidelity ORP	\$128M
Fidelity Cash Match	\$8.3M

Hardship/Loan Information

Active Loans	289
Hardships	8
Active Loan Balance	\$1.9M
Active Hardship Balance	\$14k

All Data pulled as of 9/18/2018, subject to change thereafter

Vendor Relations

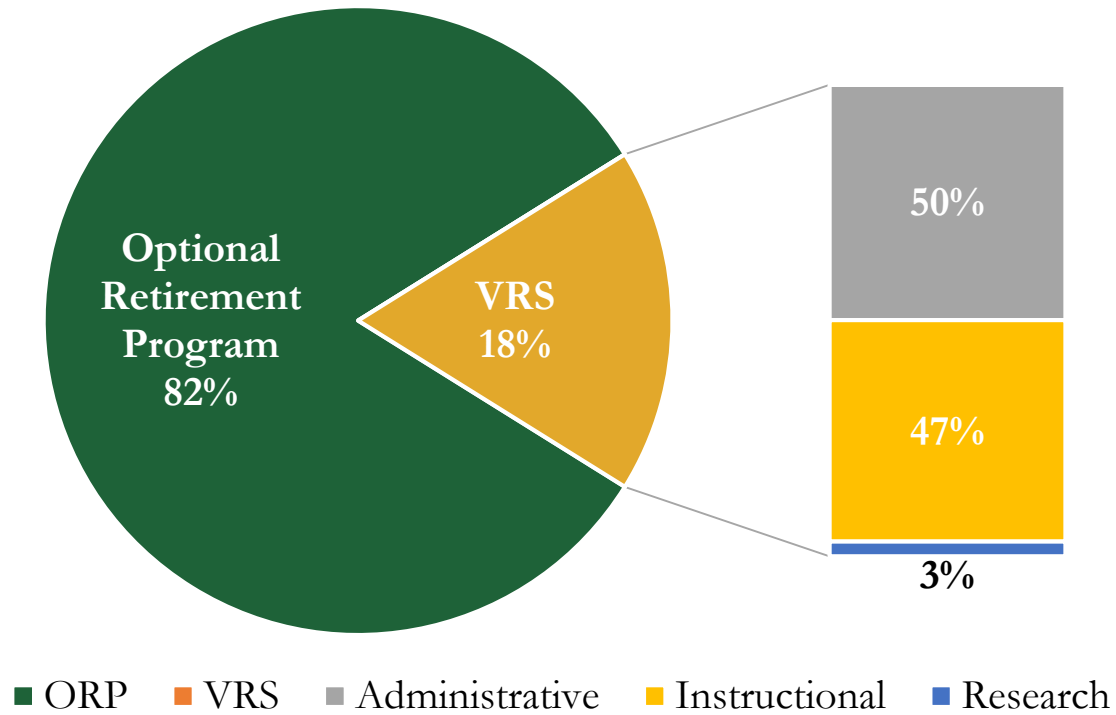
Fidelity merged several money market funds and reduced expenses on index funds

Reaffirmed continued use of Target Date funds with TIAA and Fidelity

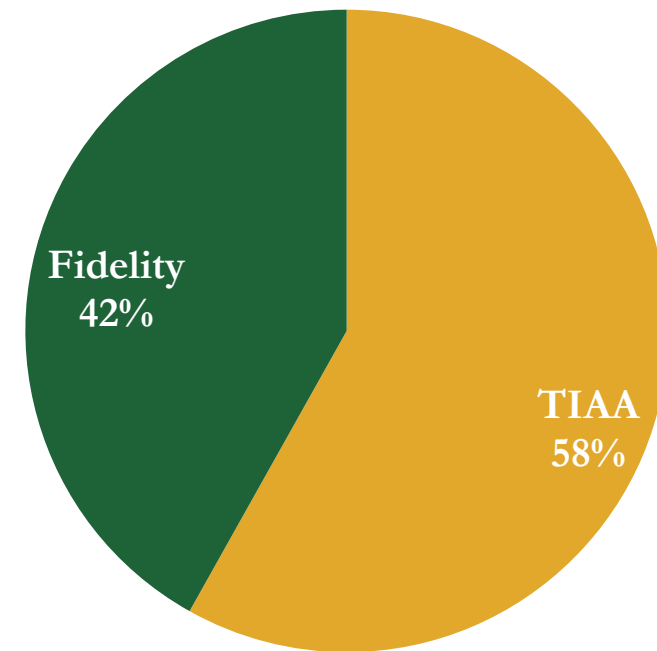
Continued emphasis on retirement and financial wellbeing through various seminars and other on-campus activities

Faculty Retirement Snapshot

Faculty Retirement Participation



Optional Retirement Plan Enrollment



University Investment Policy 2116

The Investment Policy applies to the investment and management of all University's funds not held by the State Treasury, which include both Non-State Funds and Donated Funds. It is a key component of the University's mission, including its value of being a careful steward.

Investment Policy highlights:

- Non-State Funds are invested in Authorized Investments in a manner to ensure the University's daily cash flow demands are met
- Donated Funds are transferred to the George Mason University Foundation, Inc. to manage and invest on the University's behalf as the University's agent
- The Senior Vice President for Administration and Finance will periodically monitor investment results for both Non-State Funds and Donated funds.

Board Resolution

The Finance & Land Use Committee recommends the Board of Visitors resolve the University adopts the 2019 Investment Policy found in the Board Book.

MOTION: _____

SECOND: _____

Capital Matters

Land Use Certification 2018

Virginia Code §2.2-1153 requires agencies and institutions to submit a Land Use Plan annually for all Commonwealth/University-owned land:

- ★ Principal information desired by Department of General Services is last column identifying what land the Commonwealth may be able to surplus.
- ★ The significant changes since last year's report are the completion of the Peterson Family Health Sciences Hall, the Potomac Science Center and Mason Ferry Garage. In addition three easements were added to the Main Campus at Fairfax.

Board Recommendation

The Finance & Land Use Committee recommends approval by the Board of Visitors of the University's Land Use Certification.

MOTION: _____

SECOND: _____

Up Next!

Fall for The Book Festival: October 10 – 13

Headliners: Tayari Jones, John Lewis, Elizabeth Strout, Elizabeth Kostova, and Angie Thomas

Outstanding Achievement Awards: November 15, 10 am

HOME Opening Night Tip-Off at Eagle Bank Arena:

Men: November 6, Penn

Women: November 6, Loyola University

BOV Meeting: December 12

Winter Graduation: Thursday, December 20, EagleBank Arena

Holiday Calendar

Thanksgiving Break

Includes an ADDITIONAL 4 hours leave

Last Day in Office: Tuesday, November 20, 2018

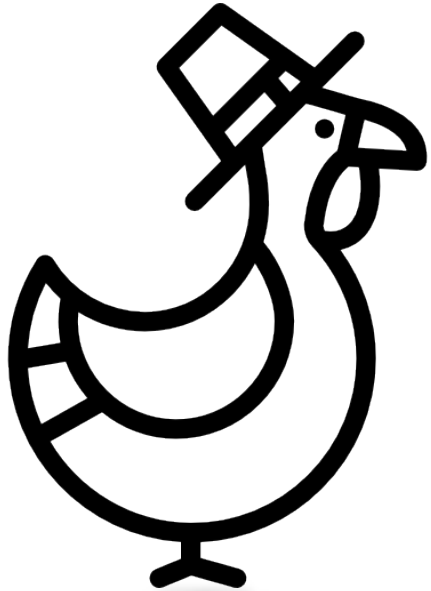
Return to Office: Monday, November 26, 2018

Winter Break

Includes an ADDITIONAL 16 hours leave



Last Day in Office: Friday, December 21, 2018

Return to Office: Monday, January 7, 2019





Thank You!



Never doubt that a small group of thoughtful, committed citizens can change the world; indeed, it's the only thing that ever has.

~Margaret Mead

Appendices

Capital Projects Review – Stoplight Chart

Facilities Projects Listing

Project #	Project Name	Scope(sf) New	Scope(sf) Reno	Total Budget	Budget Status	Schedule	Scope	Construction Start date	Occupancy date	Construction % Complete
Construction										
17999-000	Health Sciences - Academic VII (Peterson Hall)	164,880		\$ 71,198,234	Ⓡ	●	●	6/2/2015	1/8/2018	99%
A6247-020	Into Phase II		16,555	\$ 3,400,000	●	●	●	12/15/2016	7/15/2018	75%
Varies	Bull Run Labs (Mech and BioChem)		7,204	\$ 3,000,000	Ⓡ	Ⓡ	Ⓡ	3/15/2017	1/15/2019	70%
Varies	Eagle Bank Arena Upgrades		82,000	\$ 4,845,000	●	●	●	12/1/2016	11/1/2018	45%
18011-000	Hylton Center Addition*	17,082	360	\$ 13,481,383	●	●	●	8/1/2018	8/1/2019	8.00%
18207-000	Renovate Robinson Hall and Harris Theater (Phased)*	217,726	23,161	\$ 119,631,000	●	●	●	7/1/2018	12/31/2021	0.00%
18208-000	Improve Utility Distribution Infrastructure Fairfax (Phased)*			\$ 51,539,000	●	●	●	8/1/2018	12/31/2021	0.00%
Design										
17848-000	PPEA Discovery Hall Ph II & Fitout/Clean Room	18,000		\$ 6,115,000	●	●	●	2/25/2019	1/15/2020	N/A
Planning										
18000-000	Life Sciences - Bull Run Add DPB*	100,000	5,000	\$ 64,000,000	○	○	○	TBD	TBD	N/A
18339-000	Telecom Infrastructure*			\$ 10,053,000	○	○	○	TBD	TBD	N/A
A8247-027	Johnson Center HVAC Repairs			\$ 3,049,500	○	○	○	TBD	TBD	N/A
A8247-024	Hylton Center HVAC Repairs		112,352	\$ 4,025,000	○	○	○	TBD	TBD	N/A
Grand Total This Report		517,688	246,632	354,337,117						

Data as of September 2018

* Pool Funded Project; will require DPB/BCOM approval for release of funds after Preliminary Design

Page 1 of 1

FUND SOURCE KEY
RB: Revenue Bond
GF: General Fund
VDOT: Virginia Dept of Transportation
CNTY: Fairfax County
SGR: Self Generated Revenue
SF: Student Fee
UM: University Mall
GIFT: Private Gifts
MR: Maintenance Reserve
ICR: Research Indirect Cost Recovery

STOPLIGHT KEY	
Ⓡ	Red: Likely to exceed approved budget/schedule/scope
●	Yellow: At risk to exceed approved budget/schedule/scope
●	Green: Within approved budget/schedule/scope

Unaudited FY 2018 Financial Statements

The University's unaudited financial statements will be submitted to the Commonwealth's Department of Accounts prior to November 1, 2018 and are posted in Draft at:

<https://fiscal.gmu.edu/generalaccounting/review-financial-statements/>

**BOARD OF VISITORS
GEORGE MASON UNIVERSITY**

**Planning Conference Meeting
July 26, 2018
MINUTES**

PRESENT: Rector pro tem Hazel and Secretary Purvis; Visitors Cumbie, Marquez, Moreno, Prowitt, Reagan, Rice, Witeck, and Zuccari; Faculty Representative Renshaw; Student Representatives Keatinge and Pettine; President Cabrera; and Secretary pro tem Cagle

ABSENT: Rector Davis; Visitors Alcalde, Blackman, Chimaladinne, Petersen, and Roth.

GUESTS:

Executive Committee of the Board of Trustees
President's Council
Outgoing President, Alumni Association
Incoming President, Alumni Association
Faculty Committee Representatives

I. Rector pro tem Hazel recognized Janet Bingham, Vice President of University Advancement and Alumni Relations, upon the news of her retirement, and thanked her for all she had done for Mason. The audience responded with applause. Rector pro tem Hazel called the meeting to order at 8:35 a.m. and called on President Cabrera.

II. President Cabrera provided welcoming remarks. He recognized the groups in attendance: the Board of Visitors (BOV), the Executive Committee of the Board of Trustees, the President's Council, and faculty representatives. He introduced the new BOV members and provided a brief background on each: Mr. Edward Rice, Mr. Paul Reagan, Ms. Ignacia Moreno and Ms. Denise Turner Roth (absent due to family emergency). President Cabrera recognized Dr. Peter Freeman, Chair of the George Mason Research Foundation. President Cabrera recognized two new members of the Board of Trustees: Mr. Al Grasso and Mr. Sumeet Shrivastava. He noted that Mr. Shrivastava is also the incoming Alumni Association president, following Ms. Jen Shelton, the outgoing Alumni Association President. President Cabrera recognized the two new Student Representatives, Bekah Pettine (undergraduate Student Body President) and Becca Keatinge (GAPSA President), and welcomed the Keith Renshaw, Chair of the Faculty Senate.

President Cabrera explained that during the BOV meeting the following day, the Board would elect their officers, make committee appointments, provide his evaluation in Closed Session, and approve his goals for 2018-2019.

President Cabrera highlighted the location of the Planning Conference, noting the MIX (Mason Innovation Exchange) was the former Fenwick Library and is currently being used as space to support multiple current and future entrepreneurship programs. He noted the hope that entrepreneurship together with other high impact learning practices will become part of Mason Impact. He explained that Mason was working on a requirement that in order to graduate, the

Board of Visitors
July 26, 2018
Page 2

students will need to demonstrate participation in one of four possible types of high impact learning practices: engaging in an entrepreneurial project, research, study abroad, or a meaningful social service or social impact innovation activity.

President Cabrera provided an overview of Mason's progress. He noted that Mason is largest public university in Virginia and the fastest-growing, accounting for 48% of the growth in enrollment in the Commonwealth in the last decade; Mason is more diverse than any time in the past, the most diverse university in the Commonwealth; Mason has a default rate of 2%, on par with flagship and elite universities; 70%+ of Mason's student graduate within 6 years and the graduation rate for transfer students is approximately 72%; Mason's graduation rates do not vary between Pell and non-Pell grant recipients; Mason attained Carnegie R1 classification in January 2016, being the youngest university in this category and posting a 15% growth in research expenditures this year. President Cabrera noted all of this success while public investment in higher education has been in decline with Mason receiving significantly less money per student than the average research university. He thanked several of the attendees for their role in legislative conversations regarding the Commonwealth budget which resulted in increased funds for Mason and in financial aid for the students. President Cabrera noted Mason increasingly depends on private support, noting the money Mason receives from the Foundation each year has almost doubled since 2012.

President Cabrera noted the recent sad news of the passing of John Toups, following the passing of George Johnson and Earle Williams last year. He recognized that generation of individuals, including Til Hazel, Sid Dewberry, and Dwight Schar, who did so much for Northern Virginia and Mason.

President Cabrera outlined the Strategic Plan, noting the update that was completed last year. He explained that his annual goals are based on that Plan, noting the following four categories:

1. Expand access to excellence and transformative learning
2. Grow research and innovation of consequence
3. Strengthen thriving, inclusive academic community
4. Build foundation for the future

He provided highlights of each goal including:

- Under Goal 1: Fully implement Mason Impact to allow all Mason students to participate in high impact learning practices; develop a signature course for all undergraduate students which reflects the University's values and commitment to diversity, inclusion and well-being; redesign the first-year experience; exploring the possibility of partnering with a for-profit entity to expand online education opportunities; meet *Smart Growth* enrollment targets; develop a strategy that engages the Mason community in executive and professional education, non-degree programs offered to members of the community; continue to increase the retention and completion numbers.
- Under Goal 2: Increase research expenditures and value of awards by 10%; review research-intensive graduate programs; re-evaluate Mason's position in medical research

and education; launch two university-wide multidisciplinary research institutes in computing/data science and in sustainability/resilience.

- Under Goal 3: Expand events and forums for community-wide dialogue around critical, difficult issues; increase the proportion of instructional faculty to mirror the diversity of the student body; adopting COACHE framework to increase faculty engagement; re-examine Mason's leadership development programs.
- Under Goal 4: Complete West Campus, SciTech, and Arlington concepts to support planned growth; develop better analytics tools; upgrading critical information technology; establish university-wide corporate relations team and strategy; conclude the current fundraising campaign with the largest number possible.

President Cabrera outlined the four morning working sessions as follows:

- Serving Students
- Partnerships for Access
- Scholarship and Research
- Securing and Sustaining Talent

He introduced David Wu, Provost, and announced his new five-year term as Provost.

III. Provost David Wu framed the morning topics and posed the following questions to the group: What sets Mason apart? How are we different? He explained there are typically two types of universities in the United States: (1) prestigious Tier 1 research universities that typically have a very low acceptance rate and (2) large regional state universities that provide access to a larger population. He noted that Mason dares to be different from the typical model and strives to accomplish both – provide access to a large population of students and access to the degree of academic excellence that is afforded to a student at the prestigious research universities. Dr. Wu noted that the idea of academic excellence and accessibility is not typically combined at a university. He outlined three main pillars of excellence:

- Transformative learning
- Inclusion and sense of well-being
- Research innovation

Provost Wu explained that throughout the morning the group would see many examples of how Mason tries to accomplish this unique model. He noted it was an ambitious goal that required the help and thoughts of all those in attendance.

Ms. Gbemi Disu, Executive Director of Strategic Initiatives, provided instructions for the groups and rotations at each station.

IV. President Cabrera recognized Visitor Shawn Purvis and Michelle Marks, Vice President for Innovation and New Ventures, and highlighted the ADVANCE partnership between Mason and Northern Virginia Community College (NOVA) that will create new pathways for thousands of students. He explained this program would help close the gap in needs in the Northern

Board of Visitors
July 26, 2018
Page 4

Virginia workforce. Visitor Purvis announced that Northrop Grumman would be sponsoring \$1 million for the ADVANCE program to kick off their partnership. The audience responded with applause. Visitor Purvis noted that in addition to this sponsorship from the Northrop Grumman Foundation, they have a commitment of 25 students year-over-year for internships and job opportunities and they will work with their veterans employee resource group to support the veterans as they accomplish their career transition from the military to college to internship to the workforce. Ms. Marks commented that this gift would allow hundreds of students to attend Mason and get their Bachelor's degree for the cost of a community college tuition. She thanked Visitor Purvis.

President Cabrera recognized Bethany Usher, Associate Provost for Undergraduate Education, and noted her leadership of Mason Impact. Ms. Usher announced that on Friday, August 3, there would be a celebration of Student Scholarship at the MIX to recognize all the students who have been engaged in research, creative, community, or entrepreneur projects over the summer. She invited all to attend this showcase of talent.

President Cabrera invited comments from the floor. Numerous members of the group provided comments and feedback on the information received from the four working sessions. President Cabrera responded to questions and comments. He thanked the group for their feedback and input and encouraged the conversations to continue.

V. President Cabrera recognized Frank Neville, Chief of Staff and Vice President of Communications and Marketing. Mr. Neville encouraged the group to subscribe to the George Mason YouTube channel so that the productions can be viewed in real time as they are produced. He recognized the creative team behind the new video for prospective students and asked them to introduce themselves and their roles: Elliott de Luca, art director; Margaret Mandell, senior copywriter; Joseph Boyd, videographer and video editor; Will Sidaros, senior at Mason studying film, actor and grip; Sam Hakes, videographer, director and producer of the video. They explained it was a 'campaign' piece for the school instead of event documentation style, to speak to the school's strengths, philosophy, and principles. The video was shown and was recognized with applause from the audience.

VI. Rector pro tem Hazel called for a lunch recess at 11:55 a.m. and advised the meeting would reconvene at 1:00 p.m.

VII. Rector pro tem Hazel reconvened the meeting at 1:05 p.m. and called on President Cabrera. President Cabrera called on the new BOV members to provide their feedback on the morning session topics. He recognized Visitor Reagan. Visitor Reagan reported the following take-aways from his group:

- Under the topic of Securing and Sustaining Talent, the group learned about the difficulty of the onboarding process and how long it takes to get an employee enrolled. He noted, in his experience, this is a recurring theme in the state government as well. He

noted a comment from the group was the disparity in trends between schools within the University.

- Under the topic of Serving Students, the group learned about the acute problem of mental health on campus and that the problem is getting more intense. He noted that as Mason grows, the need for services is going to become more intense. Visitor Reagan found it remarkable that the graduation rates are consistent across groups and noted that is a great story to tell.
- Under the topic of Partnerships for Access, the group learned about the opportunities that exist for online education and the enormous demand for online education among adult learners and people who have some college credit.
- Under the topic of Scholarship and Research, the group learned about the ambitious goal of \$224 million by 2024. He noted the great diversity in Mason's research portfolio.

Visitor Moreno commented that Visitor Reagan summarized many of her observations. She shared that prior to this meeting, she did not know about the amazing accomplishments and progress of the current team. Visitor Moreno noted that part of her take-away is that the story of George Mason needs to get out and make sure people know about the research that is happening, the students that are graduating from Mason, and that many are staying in the area and helping to grow the economy. She noted that through her conversations, there is clearly a commitment to excellence and making the big ideas a reality. Visitor Moreno reported her take-away from the Partnerships for Access session was the important emphasis on the adult learner population in order to make the four-year college degree a reality for this group.

Visitor Rice reported the following take-aways from his group:

- Under the topic of Scholarship and Research, the group learned about the strengths and areas that need strengthening, noting that Mason has the preparation and willingness to go after those areas that need strengthening. He noted the great potential of the Innovation Center for Personal Health with INOVA, UVA, and Mason working together.
- Under the topic of Securing and Sustaining Talent, the group learned about human resources, payroll, and Search 2.0 training. He noted the good indicators and the noted room for improvement, giving people a challenge and providing good feedback on what has been done.
- Under the topic of Serving Students, the group received a lot of data including the statistics that 90% of Mason graduates are employed locally and that the incoming class is 50% is from the underrepresented population of the Commonwealth.
- Under the topic of Partnerships for Access, the group learned about the flexibility, affordability and portability of education and that there are 3,000 coming to Mason each Fall from Northern Virginia Community College.

Board of Visitors
July 26, 2018
Page 6

President Cabrera thanked the Visitors for their feedback and comments. He called on Ms. J.J. Davis, Senior Vice President for Administration and Finance, to present the Financial Framework.

Ms. Davis presented the University's finances at a macro level. She noted the Commonwealth's budget was delayed this year and thanked all who assisted and supported the effort to put the budget together. Ms. Davis reported Mason's S&P rating was upgraded, a testament to the efforts of everyone managing funds well. She also reported that Forbes rated Mason as one of America's top employers. Ms. Davis shared the Commonwealth's rating on Mason student ROI, which looked at the cost of education relative to wages post-graduation, and noted this was a very positive selling point for Mason. She explained the debt history and the marked improvement over the past five years, noting the work of George Mason University and the George Mason Foundation to achieve this. Ms. Davis discussed the revenue sources and the major expense categories, while noting the goal to remain affordable, accessible, and high quality. She noted the competition for students due to the decline in the high school population, compliance requirements, and the high cost of living in Northern Virginia. Ms. Davis emphasized the continuing disinvestment from the Commonwealth and Mason's pursuit of its fair share of those funds, noting the disparity in the amount of money Mason receives per student compared to its sister institutions in Virginia. She discussed the increased services for the students, the Core Campus construction, the water infrastructure, and IT and the connectivity issues.

Ms. Davis outlined the four afternoon sessions as follows:

- Planning for Growth
- Campus Planning
- Fundraising
- Government Relations

President Cabrera called on BOV members to provide their feedback on the afternoon session topics. He recognized Visitor Zuccari. Visitor Zuccari reported the following takeaways from her group:

- Educating the legislators with the Mason story and asking more questions about the discrepancies, especially during election years.
- With the growth of the buildings and the projected 7,000 students, the effort of managing all the time on all the campuses, noting the class size in the buildings would not have a significant change.
- Jack Nicholson attended the first event at the now EagleBank Arena.

She thanked Scott Nichols and Kathy Cagle for their support of the Board of Visitors.

Board of Visitors
July 26, 2018
Page 7

President Cabrera recognized Rector pro tem Hazel. Rector pro tem Hazel reported the following takeaways from his group:

- It was interesting to hear about the plans for West Campus, noting it was a 50-year plan and that perhaps there were things that could be done sooner that would be more relevant, citing Arlington as a possibility.
- The current campaign has been very successful, but more needs to be done, including hiring more people and setting a new goal for a new campaign at the conclusion of this one.
- Regarding CyberX, even though the legislative language was passed, the funding will not happen for another year, Year 2 of the budget. He noted the opportunity to continue the discussion with legislators.
- Between Mason and Northern Virginia Community College, there are presently 100,000 students in class, making northern Virginia the education engine of the Commonwealth. He noted this message needs to be shared in Richmond.

President Cabrera recognized Visitor Rice. Visitor Rice reported the following takeaways from his group:

- The disparity between the different universities in terms of state remuneration, noting the many of the growth opportunities at Mason are in consortia or partnerships with other organizations.
- The management of expected growth and management of unexpected changes and the preparation needed to handle those events.
- The total growth of the campus from 400,000 square feet to 9,000,000 square feet, noting the incredible increase.

President Cabrera recognized Visitor Cumbie. Visitor Cumbie reported the following takeaways from his group:

- Regarding working the legislators on Mason's behalf, he noted the need to have more Mason graduates in the legislature and the need to work harder to get increased support
- The degree of continued growth at Mason and preparing for the changes that will accompany that growth.

Visitor Cumbie shared his connection to Mason over the years beginning in the early 1980's with then ICAR, now SCAR. He noted that in the 1990's, his firm was hired to develop the SRA building, and now his connection is serving as a Board of Visitor. Visitor Cumbie noted the amazing amount of change in that time and the increase in the Foundation's assets over the last 20 years.

VIII. President Cabrera provided the following closing thoughts:

- Regarding the concept of being the "education engine" of the Commonwealth, Mason is driving almost half of the growth in the Commonwealth.
- The disparity in the funding from the Commonwealth is increasing while the number of students is growing faster than any of the other sister universities.

Board of Visitors

July 26, 2018

Page 8

- How can Mason continue to deliver on the mission of changing more lives for the better within the parameters and circumstances of funding? He noted the need to think differently about how Mason accomplishes its mission, noting being open to the idea of public/private partnerships as well as other non-traditional solutions.

President Cabrera commented on the theme of “Dare to be Different” and Mason branding that tells the unique Mason story. He thanked the group for their time and feedback, noting it was a very productive and informative day.

President Cabrera informed the group that Geo Mason wine would be available during the reception, noting this was a project led by the Alumni Association with labels designed by Mason students. He informed the group that for every bottle sold, \$3.00 goes to scholarships.

President Cabrera recognized Mr. Sean Mallon, Associate Vice President of Entrepreneurship and Innovation, to share information about the MIX. Mr. Mallon reported that over 30,000 cards were swiped through the reader since October 2017, represented over 5,000 unique individuals from across the campus. He invited the group to visit with the students and see the various innovative displays.

IX. Rector pro tem Hazel thanked the group for their attendance and support. He adjourned the meeting at 4:10 p.m.

Respectfully submitted,



Kathy Cagle
Secretary pro tem

**BOARD OF VISITORS
GEORGE MASON UNIVERSITY**

**Meeting of
July 27, 2018
MINUTES**

PRESENT: Rector Davis and Secretary Purvis; Visitors Blackman, Cumbie, Hazel, Marquez, Moreno, Petersen, Prowitt, Reagan, Rice, Witeck, and Zuccari; Faculty Representative Renshaw; Student Representatives Keatinge and Pettine; President Cabrera; and Secretary pro tem Cagle.

ABSENT: Visitors Alcalde, Chimaladinne, and Roth.

I. Rector Davis called the meeting to order at 9:01 a.m.

II. Approval of the Minutes

Rector Davis called for any corrections to the minutes of the Executive Committee Meeting and full Board Meeting on May 3, 2018. Hearing none, the minutes stood approved as written.

Rector Davis welcomed Becca Keatinge and Bekah Pettine, the new student representatives to the Board of Visitors. He recognized Keith Renshaw, Chair of the Faculty Senate, returning this year as the Faculty Representative.

III. Election of Officers and Committee Appointments

Rector Davis recognized Visitors Cumbie and Witeck to present the slate of officers for consideration for the election of Rector, Vice Rector, Secretary, and the two At-Large Members of the Executive Committee. He noted the Rector, Vice Rector, and Secretary are elected to serve two-year terms and the At-Large Members are elected to serve one-year terms. Visitor Cumbie advised that he and Visitor Witeck were asked to serve as the Nomination Committee for the officers going forward. He reported that he and Visitor Witeck had spoken with each Visitor, including the new Visitors, and received a consensus on the following slate:

- Rector – Tom Davis
- Vice Rector – Jimmy Hazel
- Secretary – Shawn Purvis
- At-Large Member – Horace Blackman
- At-Large Member – Dave Petersen

Visitor Cumbie **MOVED** to adopt the slate as presented. The motion was **SECONDED** by Visitor Witeck. Rector Davis opened the floor to amendments and discussion. There were none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

Rector Davis congratulated the new members and thanked the committee for their work.

Rector Davis announced that Visitors Blackman and Prowitt had graciously agreed to serve as Athletic Liaisons again for the coming year.

Rector Davis presented the proposed committee roster for 2018-2019 and asked for any additions or changes. He thanked the members for their willingness to serve.

(Attachment 1 – Board of Visitors Committee Roster for 2018-2019)

IV. Rector's Report

Rector Davis reviewed the proposed 2018-2019 BOV meeting dates. He noted there were two options for each meeting and he opened the floor for discussion or preferences. Rector Davis received concurrence on each date presented, noting the preference raised by Michelle Marks, Vice President for Academic Innovation and New Ventures, to hold the May meeting on Thursday, May 2, 2019 due to the P3 Conference that week. The final schedule of dates was confirmed by Secretary pro tem Cagle. It was **MOVED** by Visitor Petersen and **SECONDED** by Visitor Blackman to approve the agreed upon dates. Rector Davis opened the floor to discussion. There were none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

(Attachment 2 – Board of Visitors Meeting Schedule for 2018-2019)

Rector Davis reported the following Mason sports highlights:

- Junior pitchers, Zach Mort and Bryce Nightengale were selected in this year's Major League Baseball draft. Mort earned the distinction of becoming the second highest draft pick in the history of the program after the Cubs selected him in the 8th round. Nightengale was selected by the Oakland Athletics in the 16th round.
- Senior rower, Nicole Van Oort made history when she became the first female student athlete from Mason to earn Google Cloud First Team Academic All-American Honors. Van Oort joins Art Kulans (2002, Men's Volleyball), Chris Looze (2005, Baseball) and Richard Edgar (2009, Men's Soccer) as the only student-athletes from Mason named to an Academic All-American First Team.
- Junior mid-fielder, Emily Littel, was named Google Cloud Second Team Academic All-American Division 1 Women's Soccer Team selected by the college sports information directors of America. Littel, a bioengineering major, is the first Mason women's soccer player in program history to earn this honor.
- Sharon Dorsey (track and field) and Daniel Gutierrez (tennis) received Google Cloud Academic All-District Honors.
- For the third straight year, Mason had a representative at the NCAA Outdoor Track and Field Championships in Eugene, Oregon. Junior Sarah Moore ran a time of 53.19, placed 7th in her heat, and finished 20th overall in the 400 meter dash.

On behalf of the Board of Visitors, Rector Davis congratulated these students on their achievements.

V. President's Report

President Cabrera congratulated the newly elected officers of the Board and thanked them for agreeing to serve in leadership positions. He welcomed the new members of the Board.

President Cabrera explained that during the annual meeting, the Board evaluates the president's performance. He shared highlights from the past year and his proposed goals for 2018-2019. President Cabrera noted the following:

- The University is doing as well as it ever has, by serving more students, adding more value to those students, all indicators of academic performance are at a historic high, and more research is being conducted. He thanked his team for the extraordinary work to deliver those outstanding results.
- Enrollment has grown 5.2% during a time in higher education where overall enrollments are declining; graduation rates continue to grow; there are no gaps in graduation rates between minority and non-minority students.
- Mason is conducting more funded research than in previous years at a 15% increase in the past year; proposals and awards have had a 34% increase; with the Department of Homeland Security, launched the first Center of Excellence in Criminal Investigations and Network Analysis in Virginia.
- The University is raising historically high levels of philanthropic support and anticipates closing the campaign with more than \$70 million. He thanked the members of the Board for their support.
- Mason is building innovative partnerships to broaden access, including the partnership with Wiley and the ADVANCE partnership with Northern Virginia Community College. He thanked Visitor Purvis for her leadership in the Northrop Grumman grant of \$1 million to support the ADVANCE program and the reserved internships at Northrop Grumman for students in this program. He noted the need to offer a scalable platform to offer education to the thousands of people who have difficulties finishing their degrees. He thanked Visitors Hazel and Petersen for their advice throughout the process.
- The University is increasing faculty diversity to better mirror the diverse student population.
- Mason is expanding the physical facilities while capping the University's debt. He noted the opening of Peterson Family Hall and the Potomac Science Center; the expansion of science, engineering, and research space

at SciTech; and finalizing the planning for the reconstruction of Robinson Hall, the University's largest academic facility.

- The University has strengthened its financial position while remaining affordable and receiving significantly less public support on a per student basis than the other doctoral universities in Virginia. He noted the recent credit rating upgrade from S&P.

President Cabrera noted the following areas of disappointment in the past year:

- The Commonwealth did not ask Mason to lead or co-lead the CyberX initiative since it is an area of strength at Mason.
- Mason faced the controversy around past gift agreements, noting the situation was handled was managed proactively. He thanked his colleagues and members of the review committee and noted that he expected the process would increase the transparency, while respecting the needs and desires of the donors as much as possible.

President Cabrera reviewed his goals for 2018-2019. He noted and expanded on the four major areas:

- Expand access to excellence and transformative learning
- Grow research and innovation of consequence
- Strengthen thriving, inclusive academic community
- Build foundation for the future

President Cabrera responded to questions from the Board members regarding his goals. Visitor Petersen asked about the timing of the next R1 evaluation. President Cabrera responded it would be in December 2018, noting it is now done every 3 years, and the results would be available in the January – February timeframe. Discussion ensued. Rector Davis asked about alumni giving and adding staff to increase that area of philanthropy. President Cabrera responded that his goals included a 10% increase in alumni giving and agreed that the number of alumni who give, regardless of the dollar amount, is an important indicator of alumni engagement.

VI. Closed Session

Rector Davis called for a motion to go into Closed Session. Vice Rector Hazel **MOVED** that Board go into Closed Session under the provisions Section 2.2-3711.A.1 to discuss Personnel Matters. The motion was **SECONDED** by Visitor Blackman. Rector Davis opened the floor to discussion. There was none.
MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

Vice Rector Hazel **MOVED** that the Board go back into public session and further moved that by **ROLL CALL VOTE** affirm that only public business matters lawfully exempted from the open meeting requirements under the

Freedom of Information Act were heard, discussed or considered in the Closed Meeting, and that only such business matters that were identified in the motion to go into a Closed Meeting were heard, discussed or considered in the Closed Meeting. The motion was **SECONDED** by Secretary Purvis.

Roll call was taken with all present members responding in the affirmative.

As a result of the Closed Session, there were two motions.

Secretary Purvis called for a motion to approve President Cabrera's 2018-2019 goals.

Vice Rector Hazel **MOVED** and Rector Davis **SECONDED** the motion to approve President Cabrera's 2018-2019 goals. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

(Attachment 3 – President's Goals 2018-2019)

Secretary Purvis called for a motion to approve President Cabrera's performance bonus. She cited the motion:

In accordance with Section D3 of Dr. Cabrera's first amendment to his Employment Agreement dated July 1, 2017, the Board of Visitors is authorizing the maximum bonus per his Employment Agreement after meeting and exceeding his performance expectations. It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Moreno to approve the motion as stated. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

Rector Davis congratulated President Cabrera and President Cabrera thanked the Board.

VII. Board Orientation

Rector Davis called on Brian Walther, University Counsel, to present the next items on the agenda.

Mr. Walter referred to the Freedom of Information Act (FOIA) and Conflict of Interest Act (COIA) documents, noting the statutes have civil and criminal penalties. He encouraged the members to read the documents.

Mr. Walther referred to the Code of Ethics document that provides that the Board members will act in the best interest of the University and comply with FOIA and COIA. He asked the members to review and sign their documents and submit them to Secretary pro tem Cagle.

Mr. Walther referred to the Student Referrals and Admissions memorandum from Dr. Cabrera, noting Board members may write letters of recommendations, but refrain from requesting any specific information regarding admission decisions or requesting an admission decision regarding any particular student.

VIII. Academic Programs, Diversity, and University Community Updates

Rector Davis called on Provost David Wu for an update on Academic Programs, Diversity and University Community and to present the Faculty Actions presented in the Board portal. Provost Wu provided a progress report on the Gift Agreement Review Committee. He reported the Committee was charged by President Cabrera on June 4, 2018 to review donor agreements supporting faculty positions, current gift acceptance policies and practices, and report corrective actions or proposed changes to the President. Provost Wu reported he is the Chair of the nine member committee that includes Visitors Alcalde and Witeck, noting eight meeting dates had been scheduled for June, July, and August to complete the charge. He reported Baker Tilly had been recruited to provide an external audit and assistance with the review process, noting the first step was to establish the evaluation criteria in terms of what the committee was looking for in the review of the gift agreements. Provost Wu provided the following overview of the criteria:

- Academic freedom
- Inclusion or preferences of a certain group of people or individuals
- Any outside party influence in terms of governance or ongoing donor roles
- Language regarding intellectual property restrictions
- Donor notification of various sorts with the goal of providing transparency while protecting donor privacy

Provost Wu reported 60 donor agreements had been reviewed to date with the assistance of Baker Tilly, noting that 7 of the 60 agreements were flagged for further review. He noted the committee is pleased with the progress and expects to be able to complete the task by the beginning of the academic year.

Rector Davis recognized the committee members for comments. Visitor Witeck commented the review is an extraordinarily important process and that once the criteria was established and the review has been completed, the process going forward will be very important for Mason's future in terms of best practices. Keith Renshaw, Chair of Faculty Senate, concurred with Visitor Witeck's assessment, noting that at the end of this process, Mason will have the opportunity to be a leader and an example of how to handle this in higher education public institutions. Rector Davis thanked the committee members for their extra time on this review. Dr. Renshaw thanked Provost for his leadership through the process.

Provost Wu reported there were four emeritus faculty actions and three election faculty actions, as presented in the Board portal, to come before the Board for approval. Rector Davis called for a motion to approve the faculty actions in

block. It was **MOVED** by Visitor Petersen and **SECONDED** by Vice Rector Hazel to approve the actions as presented. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

IX. Classified Information Access

Rector Davis recognized Melissa Perez from the Office of Research Development, Integrity and Assurance, to present the Classified Information Access Resolution. Ms. Perez explained that the University holds a facilities security clearance that enables the University to perform work on classified contracts and initiate security clearances for individuals who are supporting those contracts. She further explained that the Resolution excludes the Board from accessing any classified information received by the University and also excludes the Board of Visitors from the requirement to obtain security clearance. Ms. Perez responded to several questions from the Board members. Rector Davis called for a motion to approve the resolution. It was **MOVED** by Visitor Petersen and **SECONDED** by Vice Rector Hazel to approve the resolution. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

(Attachment 4 – Classified Information Access Resolution)

X. Documents and Records Request Policy

Rector Davis read the Documents and Records Request Policy. It was **MOVED** by Vice Rector Hazel and **SECONDED** by Visitor Cumbie to approve the renewal of this policy. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

(Attachment 5 – Documents and Records Request Policy)

XI. Key Initiatives and FY 2019 Budget

Rector Davis called on Ms. J.J. Davis, Senior Vice President for Administration and Finance, to present the next items on the agenda. Ms. Davis noted the current year budget, which started on July 1, 2018 and reported Mason has been able to formulate the plan as outlined to the Board. She reported the University is working through compensation options, noting the State did not grant significant raises in the current fiscal year, so there will be a proposal for the faculty and staff that President Cabrera will, hopefully, be able to announce at the start of the academic year. She explained this will be a combination of bonus by the end of the calendar year and base increases in June.

XII. Six-Year Operating Plan

Ms. Davis noted there is an annual requirement to submit a Capital and Operating Plan. She reported the Capital Plan was approved by the Board and submitted in May 2018. She reported the Operating Plan is due in October and a preliminary

plan has been submitted, noting conversations with the Commonwealth are ongoing around research, Mason's priorities, growth trajectory, and issues around tuition and fees.

XIII. Deficit Authorization Annual Notice

Ms. Davis presented the Deficit Authorization Annual Notice, explaining that the Board is required to receive this notification that states the University cannot deficit spend in any given year. She noted that while no action was required by the Board, the University submits this to the Commonwealth confirming this restriction.

XIV. Online Graduate Program Tuition Proposal

Ms. Davis reviewed the Online Graduate Tuition proposal as presented on the Board portal. She noted Mason is sensitive to the graduate online programs with respect to the market pricing and that the proposal was for in-state and out-of-state tuition. Ms. Davis noted these programs are with the Wiley partnership and summarized the proposal as follows:

- In the College of Health & Human Services:
 - Masters of Science in Health Administration
- In the Antonin Scalia School of Law:
 - LL.M. in Global Antitrust Law and Economics
 - LL.M. in U.S. Law

Rector Davis called for a motion to approve the tuition proposal. It was **MOVED** by Visitor Cumbie and **SECONDED** by Visitor Petersen to approve the tuition proposal. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

XV. Closed Session

Rector Davis called for a motion to go into Closed Session. Vice Rector Hazel **MOVED** that Board go into Closed Session under the provisions of Section 2.2-3711.A.7 for Consultation with Legal Counsel pertaining to actual or probable litigation, Section 2.2-3711.A.8 for Consultation with Legal Counsel regarding specific legal matters requiring the provision of legal advice, Section 2.2-3711.A.29 to discuss a Public Contract, Section 2.2-3711.A.1 to discuss Personnel Matters, Section 2.2-3711.A.9 to discuss Gifts, Bequests, and Fundraising Activities, and Section 2.2-3711.A.2 to discuss a Student Matter. The motion was **SECONDED** by Secretary Purvis. Rector Davis opened the floor to discussion. There was none.

MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

Vice Rector Hazel **MOVED** that the Board go back into public session and further moved that by **ROLL CALL VOTE** affirm that only public business matters lawfully exempted from the open meeting requirements under the

Freedom of Information Act were heard, discussed or considered in the Closed Meeting, and that only such business matters that were identified in the motion to go into a Closed Meeting were heard, discussed or considered in the Closed Meeting. The motion was **SECONDED** by Visitor Witeck.

Roll call was taken with all present members responding in the affirmative.

As a result of the Closed Session, the following Action Item was brought to the Open Meeting:

Vice Rector Hazel **MOVED** that the resolution that was discussed and received consensus in the Closed Session be approved. The motion was **SECONDED** by Visitor Cumbie. Rector Davis opened the floor to discussion. There was none.
MOTION CARRIED UNANIMOUSLY BY VOICE VOTE

XVI. Adjournment

Rector Davis called for a motion to adjourn. It was **MOVED** by Visitor Cumbie to adjourn and Rector Davis adjourned the meeting at 12:13 p.m.

Respectfully submitted,



Kathy Cagle
Secretary pro tem

- Attachment 1: Board of Visitors Committee Roster for 2018-2019
- Attachment 2: Board of Visitors Meeting Schedule for 2018-2019
- Attachment 3: President's Goals 2018-2019
- Attachment 4: Resolution on Classified Information Access
- Attachment 5: Document and Records Request Policy

BOV Committee Membership

EXECUTIVE COMMITTEE

Tom Davis – Rector
Jimmy Hazel – Vice Rector
Shawn Purvis – Secretary
Horace Blackman – Member-At-Large
Dave Petersen – Member-At-Large

ACADEMIC PROGRAMS, DIVERSITY & UNIVERSITY COMMUNITY

Karen Alcalde, Chair
Bob Witeck, Vice Chair
Horace Blackman
Anjan Chimaladinne
Dave Petersen
Nancy Prowitt
Paul Reagan
Edward Rice
Denise Turner Roth
Lisa Zuccari

AUDIT

Edward Rice, Chair
Ignacia Moreno, Vice Chair
Horace Blackman
Jimmy Hazel
Dave Petersen
Shawn Purvis

FINANCE & LAND USE

Dave Petersen, Chair
Horace Blackman, Vice Chair
Karen Alcalde
Steve Cumbie
Jimmy Hazel
Ignacia Moreno
Paul Reagan
Edward Rice
Denise Turner Roth

RESEARCH

Horace Blackman, Chair
Shawn Purvis, Vice Chair
Anjan Chimaladinne
Nancy Prowitt
Edward Rice
Bob Witeck

DEVELOPMENT

Jimmy Hazel, Chair
Lisa Zuccari, Vice Chair
Wendy Marquez
Paul Reagan

Athletic Liaisons: Horace Blackman and Nancy Prowitt

BOARD OF VISITORS

George Mason University

Meeting Dates for 2018-2019

Approved July 27, 2018

Wednesday, October 10, 2018 Full Board Meeting

Wednesday, December 12, 2018 Full Board Meeting

(Winter Graduation – Thursday, December 20, 2018)

Wednesday, February 27, 2019 Full Board Meeting

**Wednesday, April 3, 2019 Finance & Land Use Information
Session/Special Board Meeting**

Thursday, May 2, 2019 Full Board Meeting

(Commencement – Friday, May 17, 2019)

Thursday, July 25, 2019 Annual Planning Conference

Friday, July 26, 2019 Annual Meeting

Special Full Board or Committee meetings to be scheduled if needed.

President's 2018-19 Goals

Approved July 27, 2018

1. **Expand access to excellence and transformative learning**
 - a. Fully implement Mason Impact, including new set of program options, participation metrics, and a university-wide office for service learning. Increase the number of students engaged in research or study abroad by 10%
 - b. In collaboration with the faculty, develop a foundational course for all undergraduate students which reflects the university's values and commitment to diversity, inclusion and wellbeing
 - c. Launch re-designed first year experience
 - d. Establish partnership to create online platform to support career-long education of working professionals and adult learners
 - e. Launch ADVANCE partnership with NOVA with at least 20 programs and 250 students
 - f. Meet *Smart Growth* enrollment targets, including 8% growth in out-of-state and international students
 - g. Develop a strategy and structure that engages the whole Mason community in the growth of executive and professional education
 - h. Increase freshman and transfer retention to 88%; six-year graduation rate to 71% for first-time freshmen and to 70% for transfer students.
2. **Grow research and innovation of consequence**
 - a. Increase sponsored research expenditures and value of awards by 10%
 - b. Study strategic expansion of research-intensive graduate programs
 - c. Study strategic options in medical research and education
 - d. Launch two university-wide multidisciplinary research institutes in computing/data science and in sustainability/resilience
 - e. In collaboration with GMRF, integrate efforts in entrepreneurship, innovation and economic development to maximize impact in the region's economy
3. **Strengthen thriving, inclusive academic community**
 - a. Expand events and forums for community-wide dialogue around critical, difficult issues
 - b. Increase the proportion of instructional and research faculty who come from historically underrepresented groups to better reflect the diversity of our student body
 - c. Adopt COACHE framework to increase faculty engagement
 - d. Execute key wellbeing and engagement initiatives as informed by Quality of Work-Life project (e.g. parental leave, physical well-being, flexible work)
 - e. Roll out comprehensive leadership development program
4. **Build foundation for the future**
 - a. Complete West Campus, SciTech and Arlington concepts to support planned growth in enrollment, research and innovation
 - b. Develop detailed financial plan and business analytics to support strategic decision making for financially sustainable growth including investments in critical areas
 - c. Maintain or improve all metrics in the financial scorecard
 - d. Upgrade critical information systems (Banner 9 rollout and plan to move to cloud; secure, compliant research computing environment; data governance structure; upgrades to Wi-fi network; CRM element of Student Experience Redesign)
 - e. Establish university-wide corporate relations team and strategy
 - f. Raise at least \$60M in new gifts, including \$5M for the endowment and 10% increase in alumni donors. Conclude \$500M campaign at \$600M or more before December 2018

RESOLUTION ON CLASSIFIED INFORMATION ACCESS

WHEREAS, current Department of Defense Regulations contain a provision making it mandatory that the Senior Management Official and Facility Security Officer meet the requirements for eligibility for access to classified information established for a contractor facility clearance; and

WHEREAS, said Department of Defense Regulations permit the exclusion from the requirements for access to classified information of certain members of the Board of Directors and other officers, provided that this action is recorded in the corporate minutes.

NOW THEREFORE BE IT DECLARED that the Senior Management Official and Facility Security Officer at the present time do possess the required eligibility for access to classified information; and

BE IT RESOLVED that in the future, when any individual enters upon any duties as Senior Management Official or Facility Security Officer, such individual shall, if they do not already possess such, immediately make application for the required eligibility for access to classified information; and

BE IT RESOLVED AND DIRECTED that the following members of the Board of Directors and other officers shall not require, shall not have, and can be effectively and formally excluded from access to all CLASSIFIED information disclosed to the University and shall not affect adversely University policies or practices in the performance of classified contracts for the Department of Defense or the Government contracting activities (User Agencies) of the National Industrial Security Program.

Board Officers:

Thomas M. Davis - Rector
Shawn Purvis - Secretary

James W. Hazel - Vice Rector

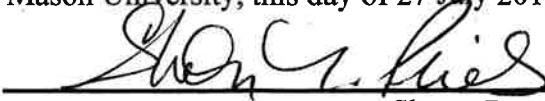
Board Members:

Karen Alcalde
Stephen Cumbie
David Petersen
Edward H. Rice
Lisa Zuccari

Horace L. Blackman
Wendy Marquez
Nancy G. Prowitt
Denise Turner Roth

Anjan Chimaladinne
Ignacia S. Moreno
Paul J. Reagan
Robert Witeck

IN WITNESS WHEREOF I have hereunto set my hand and affixed the seal of George Mason University, this day of 27 July 2018



Shawn Purvis - Secretary

GEORGE MASON UNIVERSITY


BOARD OF VISITORS

DOCUMENT AND RECORDS REQUEST POLICY

In order to facilitate the orderly transaction of business, and to make the most efficient use of administrative staff, it is the policy of this Board that all requests by individual members for University documents and records, subject to review by Counsel for disclosability, shall be directed to the Secretary of the Board of Visitors or to the Secretary pro tem in the absence of the Secretary of the Board of Visitors.

This policy shall remain in effect for one year.

Adopted by the Board of Visitors on July 27, 2018.


Secretary (Shawn N. Purvis)
Board of Visitors