Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

Action Requested:

- [x] Create New (SCHEV approval required except for minors)
- [ ] Inactivate Existing
- [ ] Modify Existing (check **ALL** that apply)
  - [ ] Title (SCHEV approval required except for minors)
  - [ ] **Concentration** (Choose one): [ ] *Add* [ ] *Delete* [ ] *Modify*
  - [ ] Degree Requirements
  - [ ] Admission Standards/ Application Requirements
  - [ ] Other Changes: _____

Type (Check one)**:**

- [ ] B.A. [ ] B.S. [x] Minor
- [ ] Master's
- [ ] Ph.D.
- [ ] Undergraduate Certificate*
- [ ] Graduate Certificate*
- [ ] Bachelor's/Accelerated Master's [ ] Other:

College/School:	College of Science	**Department:**	Academic Affairs		
Submitted by:	Padmanabhan Seshaiyer	**Ext:**	3-9787	**Email:**	pseshaiy@gmu.edu

Effective Term: Fall 2018

Please note: For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

Justification: (attach separate document if necessary)

To create a minor to help prepare STEM majors with the professional skills needed out in the STEM workforce.

	Existing	New/Modified
Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept.		Leadership and Professional Development in STEM
Concentration(s):		
Admissions Standards / Application Requirements: (Required only if different from those listed in the University Catalog)		
Degree Requirements: Consult University Catalog for models, attach separate document if necessary using track changes for modifications		Please see attached
Courses offered via distance: (if applicable)		
TOTAL CREDITS REQUIRED:		16-19

***For Certificates Only:** Indicate whether students are able to pursue on a [ ] **Full-time basis** [ ] **Part-time basis**

Approval Signatures

Department Date | College/School Date | Provost's Office Date

Required for Minors and Interdisciplinary Programs

If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

For Undergraduate Programs only

Undergraduate Council Member | Provost Office | Undergraduate Council Approval Date

For Graduate Programs Only

Graduate Council Member | Provost Office | Graduate Council Approval Date

For Registrar Office's Use Only: Received_____Banner_____Catalog_____

revised 9/2/2016

Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference. Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

FOR ALL PROGRAMS (required)

Program Title: Leadership and Professional Development in STEM Minor

Date of Departmental Approval: Fall 2017

FOR NEW PROGRAMS (required if creating a new program)

- Reason for the New Program:
  To create a minor to help prepare STEM majors with the professional skills needed out in the STEM workforce.

- Relationship to Existing Programs:
  This will be a minor that can be added to any undergraduate bachelor's degree at Mason, although it will be focused toward preparing STEM majors.

- Relationship to Existing Courses:
  The minor includes courses from the ASTR, CLIM, GEOL, FRSC, ESP, MATH, CDS, GGS, and PHYS departments as well as from the college's prefix, "COS". The curriculum also contains COMM and ENGH course options to fulfill the writing and communication portion of the minor.

- Semester of Initial Offering: Fall 2018

- Insert Tentative SCHEV Proposal Below

Leadership and Professional Development in STEM Minor

College of Science

Fall 2018 Semester

Eight credits of coursework must be unique to the minor. Additional minor policies can be found here: https://catalog.gmu.edu/policies/academic/undergraduate-policies/#ap-5-3-4

			Min	Max
Writing and Communication			6	6
COS 300	*3 credits*	Professional Preparation for STEM Majors (new course)		
Choose one from the following:				
EVPP 429	*3 credits*	Environmental Science Communication		
COMM 320	*3 credits*	Business and Professional Communication		
ENGH 388	*3 credits*	Professional and Technical Writing		
Any Honors thesis or writing course (with approval from the minor advisor)				
Ethics and Leadership			3	3
COS 400	*3 credits*	Problem Solving and Leadership in STEAM (new course)		
Quantitative Reasoning			3	4
Choose one course from the following:				
MATH 111	*3 credits*	Linear Mathematical Modeling		
MATH 113	*4 credits*	Analytical Geometry and Calculus I		
MATH 125	*3 credits*	Discrete Mathematics		
Computational Thinking			3	3
Choose one course from the following:				
CDS 301	*3 credits*	Scientific Information and Data Visualization		
CDS 302	*3 credits*	Scientific Data and Databases		
GGS 110	*3 credits*	Introduction to Geoinformation Technologies		
GGS 311	*3 credits*	Introduction to Geographic Information Systems		
PHYS 251	*3 credits*	Introduction to Computer Techniques in Physics		
Internship			1	3
Choose one course from the following:				
COS 499	*1-3 credits*	Internship (new course under development)		
ASTR 409	*3 credits*	Astronomy Internship		
CLIM 409	*3 credits*	Research Internship		
GEOL 480	*1-3 credits*	Internship		

CDS 491	*1-3 credits*	Internship
EVPP 494	*1-3 credits*	Internship
FRSC 406	*3 credits*	Forensic Internship
GGS 480	*1-3 credits*	Internship
PHYS 409	*3 credits*	Physics Internship

Or any other internship course as approved by the minor advisor.

To be confirmed by chairs

Minor Credit Total:	16	19