Program Approval Form

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

Action Requested:

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

Type (Check one)**:**

- [ ] B.A. [x] B.S. [ ] Minor (req. C3 approval)
- [ ] M.A. [ ] M.S. [ ] M.Ed.
- [ ] Ph.D.
- [ ] Undergraduate Certificate* (req. C3 approval)
- [ ] Graduate Certificate*
- [ ] Bachelor's/Accelerated Master's [ ] Other:

College/School:	College of Science	**Department:**	Atmospheric Oceanic and earth Sciences
Submitted by:	Cristiana Stan	**Ext:** 3-5391	**Email:** cstan@gmu.edu

Effective Term: Fall 2016

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)

See attached.

	Existing	New/Modified
Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept.	Atmospheric Sciences BS	
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		Add "or CDS 130" to computer science requirement and "or CDS 301, or CDS 302, or CDS 303" to requirements for Computational Atmospheric Science option. **See attached**.
Courses offered via distance: (if applicable)		
TOTAL CREDITS REQUIRED:		

***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 Minors and UG Certificates only (Cross-College Curriculum Committee Approval)

C3 Committee Member | Provost Office | C3 Committee 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 7/1/15

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.

Program Title: Atmospheric Sciences BS
Date of Departmental Approval: 11/23/2015

Summary of the Modification

For computer science requirement, add option to take CDS 130 instead of CS 112.
For Computational Atmospheric Sciences option of degree, add option to take CDS 301, or CDS 302, or CDS 303 instead of CDS 251.

Reason for the Modification

Add new courses to diversify the program. The added course will expand the upper-level courses available for the computational atmospheric science option.

Text before Modification (title, degree requirements, etc.)

Computer Science (4 credits)

- CS 112 - Introduction to Computer Programming Credits: 4 or
- (An additional 1 credit information technology ethics course must be taken in order to completely fulfill the Mason Core: Information Technology requirement. Recommended courses include either CDS 151 or CS 105).

Computational Atmospheric Sciences Option

The Computational Atmospheric Sciences option gives students preparation in computational science, mathematics, and elements of numerical modeling in order to undertake quantitative research or operational work in a professional or graduate setting. In addition to the required courses above, students choosing this option will take the following 9 credits:

- CLIM 440 - Climate Dynamics Credits: 3

  or CLIM 470 - Numerical Weather Prediction Credits: 3

- CDS 251 - Introduction to Scientific Programming Credits: 3
- MATH 214 - Elementary Differential Equations Credits: 3

Later section of requirements:

Mason Core and Elective Credits (48 credits)

In order to meet a minimum of 120 credits, this degree requires an additional 48 credits, which may be applied towards any remaining Mason Core requirements (outlined below), requirements for bachelor's degrees, and elective courses. Students are strongly encouraged to consult with their advisors to ensure that they fulfill all requirements.

Text after Modification (title, degree requirements, etc.; modifications in red)

Computer Science (3-4 credits)

- CS 112 - Introduction to Computer Programming Credits: 4 (An additional information technology ethics course must be taken in order to completely fulfill the Mason Core: Information Technology requirement. Recommended courses include either CDS 151 or CS 105).
  or CDS 130 Computing for Scientists Credits: 3

Computational Atmospheric Sciences Option

The Computational Atmospheric Sciences option gives students preparation in computational science, mathematics, and elements of numerical modeling in order to undertake quantitative research or operational work in a professional or graduate setting. In addition to the required courses above, students choosing this option will take the following 9 credits:

- CLIM 440 - Climate Dynamics Credits: 3
  or CLIM 470 - Numerical Weather Prediction Credits: 3
- CDS 251 - Introduction to Scientific Programming Credits: 3
  or CDS 301 Scientific Information and Data Visualization Credits: 3
  or CDS 302 Scientific Data and Databases Credits: 3
  or CDS 303 Scientific Data Mining Credits: 3
- MATH 214 - Elementary Differential Equations Credits: 3

Later section of requirements:

Mason Core and Elective Credits (48-49 credits)

In order to meet a minimum of 120 credits, this degree requires an additional 48-49 credits (dependent upon the course chosen for the Computer Science requirement), which may be applied towards any remaining Mason Core requirements (outlined below), requirements for bachelor's degrees, and elective courses. Students are strongly encouraged to consult with their advisors to ensure that they fulfill all requirements.