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)**:**

- [x] B.A. [ ] B.S. [ ] Minor
- [ ] M.A. [ ] M.S. [ ] M.Ed.
- [ ] Ph.D.
- [ ] Undergraduate Certificate*
- [ ] Graduate Certificate*
- [ ] Other:

College/School:	College of Science	**Department:**	CHEM		
Submitted by:	Jen Gettys	**Ext:**	3.5302	**Email:**	jbazaz@gmu.edu

Effective Term: Fall 2015

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)

Adding "Mason Core and Elective Credits" and "Mason Core" sections in order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.

	Existing	New/Modified
Program Title: (Required) Title must identify subject matter. Do not include name of college/school/dept.	Chemistry, BA	
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	[Mason Core and Electives section not included]	See the bottom portion of the degree listing 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 Graduate Programs Only

Graduate Council Member	Provost Office	Graduate Council Approval Date

For Registrar Office's Use Only: Received_____Banner_____Catalog_____

revised 6/7/12

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: Chemistry, BA

Date of Departmental Approval: 3/11/2015

FOR INACTIVATED PROGRAMS (required if inactivating a program)

- Reason for Inactivation:

FOR MODIFIED PROGRAMS (required if modifying a program)

- Summary of the Modification: Adding "Mason Core and Elective Credits" and "Mason Core" sections.
- Text before Modification (title, degree requirements, etc.): Sections weren't included.
- Text after Modification (title, degree requirements, etc.): See attached.
- Reason for the Modification: In order to have the catalog listing clearly show how the degree equals 120 credits and how the Mason Core requirements can be fulfilled.

FOR NEW PROGRAMS (required if creating a new program)

- Reason for the New Program:
- Relationship to Existing Programs:
- Relationship to Existing Courses:
- Semester of Initial Offering:
- Insert Tentative SCHEV Proposal Below

Acalog ACMS™ 2015-2016 University Catalog {working}

Chemistry, BA

Banner Code: SC-BA-CHEM

This program of study is offered by the Department of Chemistry and Biochemistry in the College of Science.

This program, when coordinated with the necessary courses in education, meets requirements for teacher licensure. It also meets requirements for entrance to medical and other professional schools.

Students must fulfill all requirements for bachelor's degrees including the Mason Core. Students majoring in chemistry must complete additional College of Science requirements for Bachelor of Arts degrees. In addition to satisfying the Mason Core requirements and the program requirements for the BA degrees, students majoring in chemistry must complete the chemistry program requirements with a minimum GPA of 2.30 and present no more than two courses with a grade of 'D' (1.00) in CHEM coursework at graduation. Through the course work below, chemistry majors satisfy the Mason Core requirements in 'Natural Science' and 'Quantitative Reasoning'.

CHEM 336 or CHEM 465 will fulfill the writing intensive requirement for students majoring in chemistry.

This undergraduate program offers students the options of applying to the accelerated master's program in Curriculum and Instruction (Secondary Education Chemistry Concentration).

Degree Requirements

BA without Concentration

37 Credits of Chemistry

- CHEM 211 - General Chemistry Credits: 4 (Mason Core: Natural Science course)
- CHEM 212 - General Chemistry Credits: 4 (Mason Core: Natural Science course)
- CHEM 313 - Organic Chemistry Credits: 3
- CHEM 314 - Organic Chemistry II Credits: 3
- CHEM 315 - Organic Chemistry Lab I Credits: 2
- CHEM 318 - Organic Chemistry Lab II Credits: 2
- CHEM 321 - Elementary Quantitative Analysis Credits: 4
- CHEM 331 - Physical Chemistry I Credits: 3
- CHEM 332 - Physical Chemistry II Credits: 3
- CHEM 336 - Physical Chemistry Lab I Credits: 2
- CHEM 337 - Physical Chemistry Lab II Credits: 2
- 5 credits of electives in chemistry

11 Credits of Math

- MATH 113 - Analytic Geometry and Calculus I Credits: 4 (Mason Core: Quantitative Reasoning course)
- MATH 114 - Analytic Geometry and Calculus II Credits: 4
- MATH 213 - Analytic Geometry and Calculus III Credits: 3

8 Credits of Physics

Choose one sequence of Mason Core: Natural Science courses:

- PHYS 243 - College Physics Credits: 3
- PHYS 244 - College Physics Lab Credits: 1
- PHYS 245 - College Physics Credits: 3
- PHYS 246 - College Physics Lab Credits: 1

or

- PHYS 160 - University Physics I Credits: 3
- PHYS 161 - University Physics I Laboratory Credits: 1
- PHYS 260 - University Physics II Credits: 3
- PHYS 261 - University Physics II Laboratory Credits: 1

Without Concentration Total: 56 credits

▲ Concentration in Biochemistry (BC)

The concentration in biochemistry is designed for students interested in studying chemistry at its interface with the biological sciences. Those interested in health science careers can obtain an excellent science background through this concentration.

In addition to satisfying the Mason Core requirements and the College of Science Bachelor of Arts requirements, students majoring in chemistry with a concentration in biochemistry will complete the alternative requirements for the major plus the concentration, both expressed below. In doing so, majors satisfy the Mason Core requirements in 'Natural Science' and 'Quantitative Reasoning'.

39 Credits of Chemistry

- CHEM 211 - General Chemistry Credits: 4 (Mason Core: Natural Science course)
- CHEM 212 - General Chemistry Credits: 4 (Mason Core: Natural Science course)
- CHEM 313 - Organic Chemistry Credits: 3
- CHEM 314 - Organic Chemistry II Credits: 3
- CHEM 315 - Organic Chemistry Lab I Credits: 2
- CHEM 318 - Organic Chemistry Lab II Credits: 2
- CHEM 321 - Elementary Quantitative Analysis Credits: 4
- CHEM 331 - Physical Chemistry I Credits: 3
- CHEM 336 - Physical Chemistry Lab I Credits: 2
- CHEM 446 - Bioinorganic Chemistry Credits: 3
- CHEM 463 - General Biochemistry I Credits: 4
- CHEM 464 - General Biochemistry II Credits: 3
- CHEM 465 - Biochemistry Lab Credits: 2

11 Credits of Math and Statistics

- MATH 113 - Analytic Geometry and Calculus I Credits: 4 (Mason Core: Quantitative Reasoning course)
- MATH 114 - Analytic Geometry and Calculus II Credits: 4
- STAT 250 - Introductory Statistics I Credits: 3 (Mason Core: Quantitative Reasoning course)

8 Credits of Physics

The following Mason Core: Natural Science courses:

- PHYS 243 - College Physics Credits: 3
- PHYS 244 - College Physics Lab Credits: 1
- PHYS 245 - College Physics Credits: 3
- PHYS 246 - College Physics Lab Credits: 1

4 Credits of Biology

- BIOL 213 - Cell Structure and Function Credits: 4 (Mason Core: Natural Science course)

BC Concentration Total: 62 credits

Mason Core and Elective Credits (58-64 credits)

The remaining credits (see below for specific credit counts) are available to fulfill any remaining Mason Core requirements (outlined below). Once those and all requirements for bachelor's degrees and College of Science Bachelor of Arts requirements are met, any remaining credits may be completed by elective courses. Students are strongly encouraged to consult with their advisor to ensure that they fulfill all requirements.

- Without concentration: 64 credits
- BC concentration: 58 credits

Mason Core

Please note that some Mason Core requirements may already be fulfilled by the major requirements listed above.

Expand each item below for a link to specific course lists for each category:

Foundation Requirements (15-19 credits)

- Mason Core UWCU - Written Communication Credits: 6
- Mason Core UOC - Oral Communication Credits: 3
- Mason Core UQR - Quantitative Reasoning Credits: 3
- Mason Core UITC - Information Technology Credits: 3-7

Core Requirements (22 credits)

- Mason Core UFA - Arts Credits: 3
- Mason Core UGU - Global Understanding Credits: 3

- Mason Core ULIT - Literature Credits: 3
- Mason Core UNSL - Natural Science Credits: 7
- Mason Core USBS - Social and Behavioral Sciences Credits: 3
- Mason Core UWC - Western Civilization/Western History Credits: 3

Synthesis/Capstone Requirement (minimum 3 credits)

- Mason Core USYN - Synthesis/Capstone Credits: minimum 3

Degree Total: Minimum 120 credits