Course Approval Form

For instructions see:
http://registrar.gmu.edu/facultystaff/catalog-revisions/course/

Action Requested:

- [X] Create new course
- [ ] Inactivate existing course
- [ ] Modify existing course (check all that apply)
  - [ ] Title
  - [ ] Prereq/coreq
  - [ ] Other:
  - [1] Credits
  - [ ] Schedule Type
  - [ ] Repeat Status
  - [ ] Restrictions
  - [ ] Grade Type

Course Level:

- [ ] Undergraduate
- [X] Graduate

College/School: College of Science
Department: Forensic Science Program
Submitted by: Joseph A. DiZinno
Ext: 4985 **Email:** Jdizinn2@gmu.edu

Subject Code: FRSC **Number:** 541
(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Effective Term:

- [X] Fall
- [ ] Spring
- [ ] Summer

Year 2016

Title:
Current
Banner (30 characters max w/ spaces) Forensic Chemistry Laboratory
New Forensic Chemistry Laboratory

Fulfills Mason Core Req? (undergrad only)

- [ ] Currently fulfills requirement
- [ ] Submission in progress

Credits: (check one)

- [1] Fixed
- [ ] Variable

or
to

Repeat Status: (check one)

- [X] Not Repeatable (NR)
- [ ] Repeatable within degree (RD)
- [ ] Repeatable within term (RT)

Maximum credits allowed: 1

Grade Mode: (check one)

- [X] Regular (A, B, C, etc.)
- [ ] Satisfactory/No Credit
- [ ] Special (A, B C, etc. +IP)

Schedule Type: (check one) LEC can include LAB or RCT

- [ ] Lecture (LEC)
- [X] Lab (LAB)
- [ ] Recitation (RCT)
- [ ] Internship (INT)
- [ ] Independent Study (IND)
- [ ] Seminar (SEM)
- [ ] Studio (STU)

Prerequisite(s):
None

Corequisite(s):
FRSC 540

Instructional Mode:

- [X] 100% face-to-face
- [ ] Hybrid: ≤ 50% electronically delivered
- [ ] 100% electronically delivered

Restrictions Enforced by System: Major, College, Degree, Program, etc. (include code)
None

Equivalencies: (check only as applicable)

- [ ] YES, course is 100% equivalent to: _____
- [ ] YES, course is being renumbered to/will replace the following: _____

Catalog Copy for NEW Courses Only (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	**Notes** (List additional information for the course)
This course will familiarize students with chemical knowledge gained from experimental observations and studies in the laboratory. Students will examine, test and establish for themselves the forensic chemistry discussed in the lecture courses.	

Indicate number of contact hours: Hours of Lecture or Seminar per week: _____ Hours of Lab or Studio: 3
When Offered: (check all that apply) [X] Fall [ ] Summer [X] Spring

Approval Signatures

Department Approval Date

College/School Approval Date

If this course includes subject matter currently dealt with by any other units, 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 Courses Only

Graduate Council Member

Provost Office

Graduate Council Approval Date

For Registrar Office's Use Only: Banner_____Catalog_____

revised 6/22/15

Course 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 COURSES (required)

Course Number and Title: FRSC 541/Forensic Chemistry Laboratory

Date of Departmental Approval: 11/23/15

FOR INACTIVATED/REINSTATED COURSES (required if inactivating/reinstating a course)

- Reason for Inactivating/Reinstating:

FOR MODIFIED COURSES (required if modifying a course)

- Summary of the Modification:
- Text before Modification (title, repeat status, catalog description, etc.):
- Text after Modification (title, repeat status, catalog description, etc.):
- Reason for the Modification:

FOR NEW COURSES (required if creating a new course)

Reason for the New Course: Forensic Chemistry analysis plays an important role in forensic investigations. GMU Forensic Science Program graduate students are currently lacking instruction in this area and this course will provide valuable instruction/experience for GMU Forensic Science Program graduate students in the Forensic Chemistry Analysis Concentration.

Relationship to Existing Programs: The Forensic Chemistry Laboratory Course will be a core course requirement for the GMU Forensic Science Program graduate Forensic Chemistry Analysis Concentration and will also be offered as an elective course for the GMU Forensic Science Program, Forensic Biology Analysis and Crime Scene Investigation Concentrations.

Relationship to Existing Courses: : The Forensic Chemistry Laboratory Course is a new course which significantly enhances the GMU Forensic Science Program graduate Forensic Chemistry Analysis Concentration as a core course and offers an elective course choice for students enrolled in the GMU Forensic Science Program, Forensic Biology Analysis and Crime Scene Investigation Concentrations.

Semester of Initial Offering: Fall 2016

Proposed Instructors: Assistant Professor Katherine Pettrigrew, Forensic Science Program

- Insert Tentative Syllabus Below

GEORGE MASON UNIVERSITY
Forensic Chemisry Laboratory - FRSC 541 000

Instructor: Dr. Katherine Pettigrew
Forensic Science Program
George Mason University

E-mail: kpettigr@gmu.edu
Telephone: (703) 993-4537
Office: Exploratory Hall, Room 3405
Office hours: Email to set up an appointment

Text: Forensic Chemistry. Suzanne Bell, 2nd Edition, Pearson

Prerequisite or co-requisite: FRSC 540**:** Forensic Chemistry

Course Description: This course will familiarize students with chemical knowledge gained from experimental observations and studies in the laboratory. Students will examine, test and establish for themselves the forensic chemistry discussed in the lecture courses.

Course Content:
Laboratory Exercises

Week	Topic	Notes
Week 1	**Overview, Introductions & Lab Safety**	
Week 2	**Lab 1: Measurements & Error Analysis**	
Week 3	**Lab 2: Accurate Solution Preparation**	
Week 4	**Quiz 1st Quarter/Reports & Presentation**	
Week 5	**Lab 3: Thin-Layer Chromatography Analysis**	
Week 6	**Lab 4: Organic Chemical Spot Tests**	
Week 7	**Lab 5: Soil Examination**	
Week 8	**Midterm Exam**	
Week 9	**Lab 6: Stoichiometry and Titrations**	
Week 10	**Lab 7: Urine and Blood Analysis**	
Week 11	**Quiz 3rd Quarter/ Presentation Preparation**	
Week 12	**Lab 8: UV Analysis and Calibration Curves**	
Week 13	**Presentations**	
Week 14	**Presentations**	
Week 15	**Final Exam**	

All laboratory handouts will be available on Blackboard the day before each class for you to download and print; the instructor will not bring copies of these handouts to class. The laboratory handouts will have fill in the blanks so you are required to attend class. In addition an attendance register will be taken in each class. Failure in attendance will result in pop quizzes for the entire class.

Student Responsibilities: Students will be responsible for reading the required material prior to each class and to be prepared for facilitated discussions. Class attendance and participation is essential in order to cover the course material with a breadth of understanding.

Research Paper
The student will conduct library based research on a topic related in some way to the field of forensic chemistry. The topic of study will be assigned by your professor. Papers should be 6-8 full pages in length, not including the title and reference pages.

Presentation
Students will be required to give an oral presentation on the topic covered in their research paper highlighting the salient points, using a **single** 3x5 card for limited guidance. The PowerPoint of the presentation is due _____ and is required to be 20 minutes in length.

Grading: The written research paper, oral presentation, 2 class quizzes, midterm exam and a final exam will determine your grade in this course.

- Attendance & Participation (10%)
- Class Quiz 1 (10%)
- Class Quiz 2 (10%)
- Research Paper (20%) & Oral Presentation (10%)
- Midterm Exam (20%)
- Final Exam (20%)

100 A+	87-89 B+	70-79 C
95-99 A	83-86 B	0-69 F
90-94 A-	80-82 B-	

Note: The schedule is subject to change, please listen for announcements during class.

GMU Honor Code
The Honor Code states that all students "pledge not to cheat, plagiarize, steal, or lie in matters related to academic work."

Academic Integrity
GMU is an Honor Code university; please see the University Catalog for a full description of the code and the honor committee process. The principle of academic integrity is taken very seriously and violations are treated gravely. What does academic integrity mean in this course? Essentially this: when you are responsible for a task, you will perform that task. When you rely on someone else's work in an aspect of the performance of that task, you will give full credit in the proper, accepted form. Another aspect of academic integrity is the free play of ideas. Vigorous discussion and debate are encouraged in this course, with the firm expectation that all aspects of the class will be conducted with civility and respect for differing ideas, perspectives, and traditions. When in doubt (of any kind) please ask for guidance and clarification.

GMU E-mail Accounts
Students must activate their GMU email accounts to receive important University information, including messages related to this class.

Important dates to remember

- Last day to add classes -
- Final drop deadline (67% tuition penalty) -
- Selective Withdrawal Deadline -

Office of Disability Services

If you are a student with a disability and you need academic accommodations, please see me and contact the Office of Disability Services (ODS) at 993-2474. All academic accommodations must be arranged through the ODS.
http://ods.gmu.edu

Writing Center: http://writingcenter.gmu.edu
For general questions and comments please contact wcenter@gmu.edu or call:
703-993-1200 (Robinson Hall A114, Fairfax Campus)
703-993-1824 (Enterprise Hall 076, Fairfax Campus)
703-993-4491 (Arlington Campus)
703-993-8451 (Prince William Campus)
All appointments are made through the online scheduling system so please do not email or call to schedule appointments. If you would like to cancel an appointment you may do so via the online scheduler, simply select your appointment and click the "Cancel appointment" box at the bottom of the reservation form and then "save.

University Libraries: "Ask a Librarian" http://library.gmu.edu/mudge/IM/IMRef.html
Margaret Lam, Forensic Science Liaison Librarian; http://infoguides.gmu.edu/forensics
Fenwick Library, 402B
4400 University Drive, MSN 2FL
Fairfax, VA 22030
703-993-9058
mlam3@gmu.edu

Counseling and Psychology Services (CAPS): (703) 993-2380; http://caps.gmu.edu

University Policies:
The University Catalog, http://catalog.gmu.edu, is the central resource for university policies affecting student, faculty, and staff conduct in university academic affairs. Other policies are available at http://universitypolicy.gmu.edu/. All members of the university community are responsible for knowing and following established policies.

University policy states that all sound emitting devices shall be turned off during class unless otherwise authorized by the Professor.