Course Approval Form

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

Action Requested: (definitions available at website above)
[x] Create NEW [ ] Inactivate
[ ] Modify (check all that apply below)

[ ] Title (must be 75% similar to original) [ ] Repeat Status [ ] Prereq/coreq [ ] Grade Mode
[ ] Credits [ ] Schedule Type [ ] Restrictions [ ] Other: _____

Course Level:
[x] Undergraduate [ ] Graduate

College/School: Smithsonian Mason School of Conservation
Department:
Submitted by: David Luther
Ext: 3-5267 **Email:** dluther@gmu.edu

Subject Code: BIOL **Number:** 354
(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Effective Term: [x] Fall [x] Spring [x] Summer *Year* 2017

Title:
Current
Banner (30 characters max w/ spaces)
New: Research in Conservation

Fulfills Mason Core Req? (undergrad only)
[ ] Currently fulfills requirement
[ ] Submission in progress

Credits: (check one)
[x] Fixed → 5
[ ] Variable → to
[ ] Lec + Lab/Rct→ 0 or

Repeat Status: (check one)
[x] Not Repeatable (NR)
[ ] Repeatable within degree (RD) →
[ ] Repeatable within term (RT) →
Max credits allowed: (required for RT/RD status only)

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 if linked sections will be offered
[ ] Lecture (LEC)
[ ] Lab (LAB)
[ ] Recitation (RCT)
[ ] Internship (INT)
[x] Independent Study (IND)
[ ] Seminar (SEM)
[ ] Studio (STU)

Prerequisite(s) (NOTE: hard-coding requires separate Prereq Checking form; see above website):
EVPP 301 or EVPP 302 or BIOL 308 or INTS 401 (or equivalent course) or permission of instructor

Corequisite(s):

Restrictions Enforced by System: Major, College, Degree, Program, etc. Include Code(s).

Equivalencies (check only as applicable):
[X] YES, course is 100% equivalent to Cons 499
[ ] YES, course renumbered to or replaces

Catalog Copy (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	**Notes** (List additional information for the course)
One-on-one research experience with a conservation practitioner over 5 weeks (about 36 hours per week) on a conservation research project associated with that practitioner's program.	
Indicate number of contact hours: Hours of Lecture or Seminar per week: [ ] Hours of Lab or Studio: 5	
When Offered: (check all that apply) [x] Fall [x] 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

Undergraduate or Graduate Council Approval

UGC or GC Council Member
Provost's Office
UGC or GC Approval Date

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: BIOL 354 Research in Conservation

Date of Departmental Approval: October 19, 2016

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: BIOL 354 will provide a unique opportunity to develop a research project under the guidance of a Smithsonian professional scientist focused on conservation biology. It will be intensive and immersive and students will spend more than 36 hours per week being mentored in scientific advances in the field of conservation biology.
- Relationship to Existing Programs: The course will be part of the Smithsonian Mason School of Conservation and could help fulfil credits for concentrations in the Biology-environmental and conservation biology concentration, Environmental and Science and Policy-conservation concentration, the School of Integrative Studies- applied global conservation concentration, and the Environmental Studies and Sustainability – conservation and sustainability concentration.
- Relationship to Existing Courses: At a superficial level the proposed course appears similar to the biology research semester. Unlike the biology research semester it is supported by unique core courses and a seminar course available only at SMSC. BIOL 354 and CONS 499 provides a similar type of research experience to the university-wide OSCAR program, however this course is focused on opportunities with predominantly non-GMU scientists who work on conservation-related problems.
- Semester of Initial Offering: Fall 2017
- Proposed Instructors: James McNeil, Stephanie Lessard-Pilon, Anneke Deluycker
- Insert Tentative Syllabus Below

BIOL 354 - Research in Conservation
5 credits

Course Meeting Times
This course will meet during weeks 11-15 of the semester, Monday afternoons from 1-5, and Tuesday through Friday, between 9:00 am-12:00 pm and 1:00-5:00 pm.

Description
Students will work one-on-one with a conservation practitioner for an extensive period of time (~36 hours per week) over 5 weeks on a project associated with that practitioner's program. Students will learn skills they can apply to their professional careers and will present their work as a poster at the end of the semester in a poster session modeled after a professional conference.

Learning Objectives
Students will:

- Work under the guidance of a research professional to develop a deep understanding of the research methodologies employed in their work
- Contribute to data collection and/or analysis related to their research mentor's projects
- Develop an original scholarly product in the context of the mentor's research and conservation work
- Practice networking and professional development skills related to conducting research (posters)

Prerequisites
This semester is being offered to undergraduate juniors, seniors and post-baccalaureate students. Prerequisites include coursework to demonstrate a commitment to and understanding of conservation-related disciplines, with at least one upper level ecology course (BIOL 308 or equivalent). Students should have completed 60 credit hours of undergraduate classes. Students must sign up for all Smithsonian-Mason Semester courses in a given semester.

Course Materials
Required:
Readings for this course will be from the primary literature provided to students by their individual research mentors and will be accessible on BlackBoard 9.1, via MyMason portal (http://mymason.gmu.edu)

BlackBoard:
Many resources for the course will be accessible on BlackBoard 9.1, via the MyMason portal (http://mymason.gmu.edu) using the browser of your choice. Enter the username and password from your GMU email account and then click on the "Courses" tab at the top, right side of the page. Select the combined course option.

Assignments
Research proposal (10%)
Students will submit a formal proposal for the work they will do with their mentor with a focus on specific skills to be learned and specific expectations for work completed during the student's tenure in their lab. This document will be produced with input from the research mentor.

Brown-bag presentation (10%)
Students will present a 15-minute, brown-bag style presentation about their work during the third week of the research experience to their peers and faculty mentors. They will respond to questions about their project. Presentations will be scheduled for a series of mid-day sessions based on availability of mentors.

Final poster (30%)
Students will prepare a research-style poster about the work they completed with their mentor and present it at a special poster session at the end of the semester. Faculty from SCBI and Mason will be invited. Posters will also be eligible to be presented at the Celebration of Student Scholarship hosted by the OSCAR program in the spring semester.

Participation (40%)
Students are expected to be prompt and engaged with their research mentors. Participation will be assessed by the research mentor twice during the work period; the first time at two weeks and again at the end of the semester.

Grading
Grades for individual assignments and overall in the course will be assigned on the following scale:

A+	97-100%
A	93-96.9%
A-	90-92.9%
B+	87-89.9%
B	83-86.9%
B-	80-82.9%
C+	77-79.9%
C	73-76.9%
C-	70-72.9%
D	60-69.9%
F	<60%

Weekly Topics, Readings, and Assignments:

Date	
Pre-Research Experience	• Students submit statements of their research interests and qualifications as part of their application to the semester; select 3 possible mentors they wish to work with based on their experience • Research mentors review student applications and conduct interviews of potential candidates • Final assignments of students are based on outcomes of interviews and a panel discussion with research mentors
Week 1	**Student work with mentors** Monday in the afternoon Tuesday-Friday all day for a total of 36 hours of work each week • Research proposal due at end of week
Week 2	**Student work with mentors** Monday in the afternoon

	Tuesday-Friday all day for a total of 36 hours of work each week • 1st evaluation of student participation due at end of week
Week 3	**Student work with mentors** Monday in the afternoon Tuesday-Friday all day for a total of 36 hours of work each week • Brown-bag seminars scheduled throughout week
Week 4	**Student work with mentors** Monday in the afternoon Tuesday-Friday all day for a total of 36 hours of work each week
Week 5	**Final Presentations of Posters on Thursday** Monday in the afternoon Tuesday-Friday all day for a total of 36 hours of work each week • Final evaluation of student participation due at end of week