

Course Change Request

New Course Proposal

Date Submitted: 05/11/20 3:53 pm

Viewing: **EVPP 495 : Undergraduate Seminar in Environmental Science**

Last edit: 05/11/20 3:52 pm

Changes proposed by: slister1

Are you completing this form on someone else's behalf?

No

Effective Term: Fall 2020

Subject Code: EVPP - Environmental Science & Policy

Course Number: 495

Bundled Courses:

Is this course replacing another course? No

Equivalent Courses:

Catalog Title: Undergraduate Seminar in Environmental Science

Banner Title: Undergraduate Seminar

Will section titles vary by semester? Yes

Credits: 1

Schedule Type: Seminar

Hours of Lecture or Seminar per week: 2.5

Repeatable: May be repeated within degree (RD)

In Workflow

1. **ESP Chair**
2. **SC Curriculum Committee**
3. SC Associate Dean
4. Assoc Provost- Undergraduate
5. Registrar-Courses
6. Banner

Approval Path

1. 05/11/20 5:30 pm
A. Alonso Aguirre (aaguirr3):
Approved for ESP Chair

Max Allowable Credits: 3

Default Grade Mode: Undergraduate Regular

Recommended Prerequisite(s):
EVPP 112 and 113 or EVPP 201 or EVPP 302

Recommended Corequisite(s):

Required Prerequisite(s) / Corequisite(s) (Updates only):

Registrar's Office Use Only - Required Prerequisite(s)/Corequisite(s):

And/Or	(Course/Test Code	Min Grade/Score	Academic Level)	Concurrency?

Registration Restrictions (Updates only):

Registrar's Office Use Only - Registration Restrictions:

- Field(s) of Study:
- Class(es):
- Level(s):
- Degree(s):
- School(s):

Catalog Description:

Seminars on selected topics in environmental science, using lectures, guest lectures, student presentations, and discussions of current literature. Note: Topics vary.

Justification:

We seek to provide a thematically customizable seminar course for our undergraduate environmental science students, like CHEM 490 and MATH 495 for their majors and minors.

Does this course cover material which crosses into another department? No

Learning Outcomes:

1. Distinguish the relationships, patterns and roles of mutualistic symbioses in creating, structuring and facilitating ecosystems.
2. Recognize ecological facilitation in naturally present and human-modified ecosystems of the Potomac River Valley.
3. Derive lessons to inform their pursuit of interactions that appropriately integrate cooperation with traditional competitive and consumptive patterns of human activity.

Attach Syllabus

[EVPP 495 Undergraduate Seminar Syllabus.pdf](#)

Additional Attachments**Staffing:**

A Alonso Aguirre, Ira R Feldman, Henry Travis Gallo, Natalia A Prado-Oviedo, Ling Ren, Daniel Sklarew, Diego Valderrama

Relationship to Existing Programs:

Concentration elective for Environmental Science major, Environmental and Sustainability Studies major and related minors (depending on the topic of a given section).

Relationship to Existing Courses:

Undergraduate counterpart to EVPP 692.

Additional Comments:**Reviewer Comments**

EVPP 495 Undergraduate Seminar (1.0 credit), Spring 2021

Ecological Facilitation in the Potomac River Valley

Thurs. 4:30-7:10pm in Innovation Hall Room 215G

Course Goals

This course aims to create a team of environmental scientists and policy-makers that are wise to the ways of ecological facilitation in our area's ecosystems and thus able to apply its lessons for the betterment of humanity and other forms of life.

By the end of this course, students should be able:

1. Distinguish the relationships, patterns and roles of mutualistic symbioses in creating, structuring and facilitating ecosystems.
2. Recognize ecological facilitation in naturally present and human-modified ecosystems of the Potomac River Valley.
3. Derive lessons to inform their pursuit of interactions that appropriately integrate cooperation with traditional competitive and consumptive patterns of human activity.

Approach

Unlike seminar courses, this course will be co-organized by both the professor AND you through a series of collegial seminars and learning activities. As a result, the syllabus may be augmented and adjusted as student interests and expertise are revealed. To keep on track, please refer to the Session Plans page on our course web site.

Course Web Site(s)

Mason's Blackboard site [<http://mymasonportal.gmu.edu>] will provide you access to grades and link to our activities site [<http://sp21mutualism.pbworks.com>]. Updated syllabus, all assignments (including deadlines), submissions and professor's presentations and students notes will be posted to this site. In addition, read-only access to our Zotero group for references and readings is also available as a web site [<http://www.zotero.org/groups/potomac-symbiosis>].

Course Schedule

SESSION	DATE	TOPIC / ASSIGNMENTS	PRESENTERS	SESSION SUMMARIES
1.		Introduction and Overview	Dr. Dann Sklarew	Summary 01 by ...
2.		Lichen Photobionts, Symbiogenesis, and Ecological Facilitation Structuring of PRV Ecosystems	1. Dr. James Lawrey 2. Dr. Richard Groover 3. Dr. Dann Sklarew	Summary 02 by ...
3.		Coral Holobionts, [Microbial Mats,] Black Band Disease, and their Chesapeake Bay Analogs	1. Dr. Esther Peters 2. Dr. Robert Jonas 3. Student TBD	Summary 03 by ...
4.		Mycorrhizae: Mutualistic Plant/Fungus Symbioses	1. Dr. Al Torzilli 2. Student TBD	Summary 04 by ...
5.		More Nonhuman Mutualism:	1. Student TBD 2. Student TBD 3. Student TBD	Summary 05 by ...
6.		Still More Mutualism/Cooperation: Interspecific example(s): Bivalves Intraspecific example(s): Turtles	1. Student TBD 2. Student TBD 3. All: types of intra-specific partnerships [brainstorm]	Summary 06 by ...
7.		Intraspecific Mutualism in Humans, Transhumans and Cyborgs	1. Dr. Dann (discussion) 2. Student TBD 4. All: course products	Summary 07 ...
8.		Interspecific Mutualism with Humans (+Ecosystem Services Discussion?), e.g., with Dogs, Horses, and Livestock, and gut microbiome	1. Student TBD 2. Student TBD 3. Dr. Patrick	Summary 08 by ...
9.		Planet-scale Symbiosis	1. Dr. Thomas Lovejoy 2. Dr. Adam Carpenter	Summary 09 by ...
10.		Ecological Facilitation in the Potomac River Valley (All-Hands Class Presentation and Summary)	ALL	Summary 10 by Dr. Dann

Texts and Materials

All texts and materials will either be accessible via our Zotero Group,

<http://www.zotero.org/groups/potomac-symbiosis>, or handed out in class.

Students should feel empowered to add to this list as they see fit to convey their discoveries and ideas.

Performance Assessment

Students scores for the course will be based on performance on the following activities:

1. 40 points for the sum of scores (0-4) for active participation in 10 scheduled sessions.
2. 40 points for at least 1 in-class paper review and presentation/class discussion leadership (0-4 score)
3. 20 points for 1 adequate and accurate session summary for 1 session (0-4 score)

Assignment and Rubric	1	2	3	4
1. Participation	Partially and passively attend	Fully attend, but passive	Attend and participate	A leader in contributing substantively and actively
3. In-Class Leadership	Delivered but irrelevant	Marginally on topic and informative	Informative and professional	Publish this!
3. Session Summary	Submitted but irrelevant	Captures what occurred (activities), but does not adequately cover <u>outputs</u> (substance of information created/produced) or <u>impacts</u> (what was learned)	Broadly captures both outputs and impacts.	Fully and specifically captures activities outputs and impacts.

Participation: Students are expected to participate actively in every session. If you need to miss a session, please inform your professor in advance and make extra effort to participate on-line that week. Students who attend less than 10 scheduled sessions will be required to make supplemental contribution to the course products in order to receive full participation credit. (See your professor for details.)

Grading Procedure

The final grade is based on your performance out of the possible 100 points:

Grade	Points
A - Exceptional/Passing	90.001 - 100
B - Satisfactory/Passing	80.001 - 90

C - Unsatisfactory/Passing	70.001 - 80
F - Unsatisfactory/Failing	0 - 70

In the past, most students have received A's or B's, however a few have also received a C. The professor is not required, but reserves the right to provide + or - to grades to provide further clarification regarding the quality of students' work.

Disability Accommodation

If you are a student with a disability and you need academic accommodations, please see Debbie Wyne and contact the Disability Resource Center (DRC) at 703-993-2474. All academic accommodations must be arranged through the DRC.

If you are unable to attend class in person, please make arrangements in advance [if possible], so that the professor can try to make accommodations for your participation via WebEx, Zoom or Skype.

Honor Code

Adherence to the GMU Honor Code is expected of all students, specifically:

*Members of the George Mason University community pledge
not to cheat, plagiarize, steal, or lie in matters related to academic work.*

In all assignments and communications, plagiarism will not be tolerated. This applies equally to oral and written communications in the context of any evaluated (graded) course assignments. In presenting quotes, paraphrasing statements or logical arguments from others in any medium (on-line, oral or written), students should properly cite their source. Results of team work should only be attributed to those who directly contribute to the final product (even if more than those people were designated as being part of the team). Any or all members of a student team may be held accountable for any Honor Code violations in their shared work. Any public usage of original material from this course (e.g., presentations, images, etc.) without explicit permission of its creator shall be construed as stealing. As stated in the Honor Code, infractions may result in invalidated credit for dishonorable work and lowered grade, including failure from the class, suspension or dismissal. Inquiries for clarification from the professor are welcome. Thank you in advance for your conscious attention to these issues.

Absenteeism

As adults with outside responsibilities, many of you may have to miss a class once during the semester. If you know this is likely to happen, please contact your professor as soon as possible to arrange means to ensure you can still learn the material and/or obtain full credit for any learning activities.

Due to the exceptional threat posed by pandemic flu, students who promptly inform the professor of their flu symptoms (see next underlined link hereafter) are then strongly urged to stay at home, per [CDC direction here](#). Do not come to class until 24 hours after any [$>100^{\circ}\text{F}$] fever passed without medication.

Insofar as students adhere to the GMU Honor Code when declaring their flu-related need to work from home, they will be eligible to receive reasonable accommodation for their illness, as deemed appropriate by the professor.

About the Instructor:

Dr. Dann Sklarew, PhD

David King Hall room 2018

Office hours: Tu/Th 10:30am-12:30pm), or by appointment

E-mail: dsklarew@gmu.edu (best way to contact)

Website: <http://mason.gmu.edu/~dsklarew> Twitter: [@DannSklarew](https://twitter.com/DannSklarew) (try email first)

Phone number: (703) 993-2012 (leave message; better yet, try email first)

Session Plans & Notes

(may be elaborated on course wiki throughout semester)

[Session 01](#): Overview

[Session 02](#): (a) Lichen Photobionts, (b) Mutualist Structuring of Potomac-area Ecosystems

[Session 03](#): Investigating the Coral Holobiont - Analogs in the Chesapeake Region?

[Session 04](#): Fungal Mutualisms

[Session 05](#): Other Interspecific Mutualisms: Invertebrates and...?

[Session 06](#): Intraspecific Mutualisms (non-human)

[Session 07](#): Intraspecific Mutualism in Humans and Transhumans + Cyborg Symbioses?

[Session 08](#): Interspecific Mutualism with Humans

[Session 09](#): Planet-scale Symbiosis

[Session 10](#): Potomac Valley Mutualism (final presentation(s) and summary)