Course Approval Form

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

Action Requested:

[X] Create new course [ ] Inactivate existing course [ ] Reinstate inactive course

[ ] Modify existing course (check all that apply)

[ ] Title [ ] Credits [ ] Repeat Status [ ] Grade Type

[ ] Prereq/coreq [ ] Schedule Type [ ] Restrictions

[ ] Other:

Course Level:

[X] Undergraduate

[ ] Graduate

College/School: COS **Department:** ESP

Submitted by: Ingrid Visseren-Hamakers **Ext:** 35805 **Email:** ivissere@gmu.edu

Subject Code: EVPP **Number:** 401

(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

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

Title:

Current

Banner (30 characters max w/ spaces) Integrated Environ Assessment

New Integrated Environmental Assessment

Fulfills Mason Core Req? (undergrad only)

[ ] Currently fulfills requirement

[x] Submission in progress

Credits: (check one) [X] Fixed 3 [ ] Variable

Repeat Status: (check one) [X] Not Repeatable (NR) [ ] Repeatable within degree (RD) [ ] Repeatable within term (RT)

Maximum credits allowed: 3

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

[X] Lecture (LEC) [ ] Lab (LAB) [ ] Recitation (RCT) [ ] Internship (INT)

[ ] Independent Study (IND) [ ] Seminar (SEM) [ ] Studio (STU)

Prerequisite(s):

60 credit hours completed

Corequisite(s):

Instructional Mode:

[X] 100% face-to-face

[ ] Hybrid: ≤ 50% electronically de

[ ] 100% electronically delivered

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

Are there equivalent course(s

[ ] Yes [X] No

If yes, please list

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)
Presents strategic planning at the regional level, and focuses on the methods, format, and content of a Strategic Environmental Assessment (SEA), also referred to as a programmatic environmental impact statement (PEIS). Students will conduct research and develop their own SEA for Shenandoah National Park (NP).	
Indicate number of contact hours: Hours of Lecture or Seminar per week: 3 Hours of Lab or Studio:	
When Offered: (check all that apply) [ ] Fall [ ] Summer [X] Spring	

Approval Signatures

Department Approval	5 Apr 2016 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_____ revis

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: EVPP 401: Integrated Environmental Assessment

Date of Departmental Approval:

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:

This course is meant to become an additional synthesis course in the BS in Environmental Science and the BA in Environmental and Sustainability Studies. Students in these programs

should have the opportunity to become introduced to and gain experience with Strategic Environmental Assessment (SEA), an instrument to enable the consideration of environmental issues early in the planning process. The SEA is in essence a tool for integration and synthesis, and thus is very well suited for a synthesis course. The course is being presented this spring (2016) as one of the EVPP 490 Special Topics in Environmental Science and Policy.

- Relationship to Existing Programs:

This course is meant to become an additional synthesis course in the degree programs for the BS in Environmental Science and the BA in Environmental and Sustainability Studies.

- Relationship to Existing Courses:

No overlap has been found with other courses in these degree programs.

- Semester of Initial Offering: Spring 2016 (as EVPP 490)
- Proposed Instructors: Dr. Ingrid Visseren-Hamakers
- Insert Tentative Syllabus Below

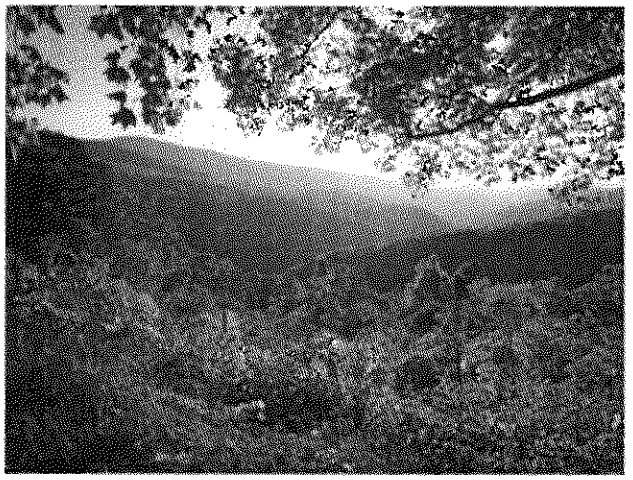
Syllabus

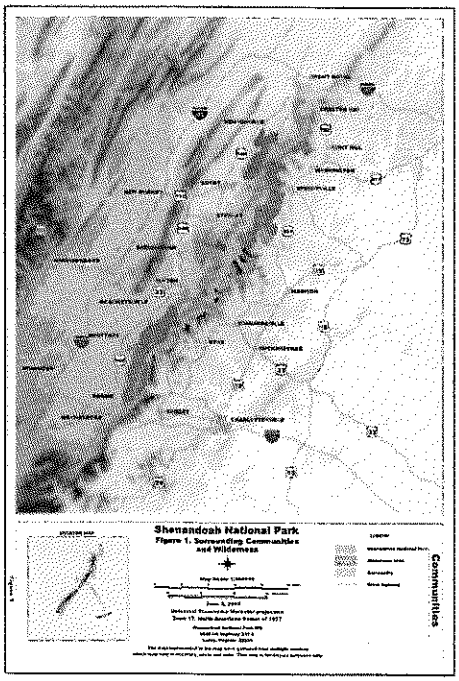
Integrated Environmental Assessment

EVPP 490-004 (21622)

Department of Environmental Science and Policy

Spring 2016






GEORGE
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Syllabus Integrated Environmental Assessment (IEA)
Spring 2016

Introduction

Welcome to the course Integrated Environmental Assessment! Wildlife & ecosystem conservation, park management, tourism, relationships with residents & stakeholders, (inter-) national environmental policy – all of these issues are highly relevant for Shenandoah National Park (NP), and its role in the Chesapeake Bay watershed.

In the course Integrated Environmental Assessment you will bring together all of these ecological and social aspects by developing a Strategic Environmental Assessment (SEA) for the NP. The SEA is an instrument that can support decision-making processes for complex policies, programs or plans, of which Shenandoah NP is an example. On the basis of such a SEA you will indicate relevant future policy options for the park. The course includes a combination of (guest) lectures, field trip(s), and a written assignment on the SEA. You will also present the results of the SEA.

Instructor

Dr. Ingrid Visseren-Hamakers
Email: ivissere@gmu.edu
Phone: (703) 993-5805
Office: David King Hall room 3019
Office hours: on appointment

Course prerequisites

60 credit hours completed

Course Relationship to Existing Programs

The course can be taken by any student meeting the prerequisite demands, but is especially designed to be part of the following undergraduate programs. However, check with your advisor on the relevance in your specific program.

- Environmental and Sustainability Studies, B.A.
- Environmental Science, B.S., all concentrations, but especially:
    - Conservation (CNSV)
    - Human and Ecosystem Response to Climate Change (HERC)□

The class is intended to become a synthesis course in the BA Environmental and Sustainability Studies and the BS Environmental Science.

Scheduling

The course will be given 10.30-13.10 on Fridays in room L004 in Thompson Hall on the Fairfax campus. The excursions will last longer than regular lecture hours due to travel time. More information on the excursions will be provided in class.

Credits
3 credits

Profile and objectives of the course
Aim of the course is to improve the understanding of strategic planning at the regional level. Central focal areas of the course are Strategic Environmental Assessment and the case study, Shenandoah National Park. During the course, you will develop your own SEA for Shenandoah NP.

Learning outcomes are the following. After this course students are expected to be able to:

1. Discuss the ecological and socio-political aspects of nature conservation at the regional level
2. Analyze plans for nature conservation
3. Apply SEA to the field of nature conservation
4. Prepare a professional report of and orally present the results

Educational activities
The course includes the following activities:
- Preparing for and attending (guest) lectures and field trips
- Presenting the planning documents of Shenandoah NP
- Preparing short assignments on the literature
- Writing a report and presenting the findings

Examination and grading
In principle all activities of the course are mandatory. This is necessary since all aspects of the course are meant to provide input for writing the report. Participation in all lectures and field trips is a prerequisite for passing the course. One meeting can be missed due to illness or unforeseen circumstances, if you inform the instructor by email in advance.

The examination has the following elements:
1. Presence during lectures and field trips (no grade, but prerequisite to pass)
2. Short assignments on the literature (30% of the final grade)
3. Presentation of Shenandoah NP planning documents (10%)
4. Final exam part I: Report (50%)
5. Final exam part II: Presenting the report (10%)

The minimum grade to pass for all elements is 60 points. You will receive further instructions on the report during the course.

Assessment strategy

Learning outcomes		Short assignments	Presenting the NP plans	Report & presentation
1.	Discuss the ecological and socio-political aspects of nature conservation at the regional level	x	x	x
2.	Analyze plans for nature conservation		x	
3.	Apply SEA to the field of nature conservation			x
4.	Prepare a professional report of and present the results			x
	Contribution to final grade (%)	30	10	60

Scores will be summed to a 0–100 scale, and then converted into grades (A–F).

Final weighted average score course	*Letter grade*
97-100	A+
93-96	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
60-69	D
0-59	F

Acknowledgement of risk for field trips
The class will include field trips to Shenandoah NP. Transportation to the NP will be provided by GMU. The field trips will include some hiking and outdoor activities. More detailed information will be provided during the course.

Academic integrity
Plagiarism is not accepted. Students are required to be familiar and comply with the requirements of the GMU Honor Code. The software program SafeAssign will be used to check for originality where appropriate.

Disability accommodations
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, http://ods.gmu.edu. All academic accommodations must be arranged through the ODS.

Learning materials and resources

The main learning material for the course is the academic literature (see list below). Links to all publications are provided below, with some publications available through Blackboard. The powerpoint presentations of the lectures will be published on Blackboard after the lectures.

Nr.	*Publication*	*Topic*
Required literature (for assignments)		
1.	Adams, W.M. and J. Hutton. 2007. People, Parks and Poverty: Political Ecology and Biodiversity Conservation. *Conservation and Society* 5(2): 147-183. http://www.conservationandsociety.org/text.asp?2007/5/2/147/49228	Global political aspects of conservation
2.	Chaker, A. et al. 2006. A review of strategic environmental assessment in 12 selected countries. *Environmental Impact Assessment Review* 26: 15-56. http://dx.doi.org/10.1016/j.eiar.2004.09.010	SEA
3.	Fundingsland Tetlow, M. and M. Hanusch. 2012. Strategic environmental assessment: the state of the art, Impact Assessment and Project Appraisal 30(1): 15-24. http://dx.doi.org/10.1080/14615517.2012.666400	SEA
4.	Jaeger, R.G. 1980. Density-Dependent and Density-Independent Causes of Extinction of a Salamander Population. *Evolution* 34(4): 617-621. http://www.jstor.org/stable/2408016	Wildlife conservation (Shenandoah salamander)
5.	Lovett, G.M. et al. 2015. Non-Native Forest Insects and Pathogens in the U.S.: Impacts and Policy Options. *Ecological Applications. See Blackboard. Please do not share with others, since the publication is still in press.*	Invasive species
6.	Popkin, G. 2015. Battling a giant killer: The iconic eastern hemlock is under siege from a tiny invasive insect. *Science* 349(6250): 803-805. http://dx.doi.org/10.1126/science.349.6250.802	Invasive species (hemlock woolly adelgid)
7.	Powell, K.M. 2007a. Chapter 1: Introduction. In: Powell, K.M. *The Anguish of Displacement: The Politics of Literacy in the Letters of Mountain Families in Shenandoah National Park.* University of Virginia Press. Charlottesville, VA: 1-15. *See Blackboard*	History (displacement of park inhabitants)
8.	Powell, K.M. 2007b. Chapter 2: Literacy, Status, and Narrative Representation. In: Powell, K.M. *The Anguish of Displacement: The Politics of Literacy in the Letters of Mountain Families in Shenandoah National Park.* University of Virginia Press. Charlottesville, VA: 17-56. *See Blackboard*	History (displacement of park inhabitants)
9.	Reid, 2004. Effectiveness of a confinement strategy for reducing campsite impacts in Shenandoah National Park. *Environmental Conservation* 31(4): 274-282. http://dx.doi.org/10.1017/S0376892904001602	Campsite management
10.	Spencer, R.D. et al. 2007. How Agencies Respond to Human-black Bear Conflicts: A Survey of Wildlife Agencies in North America. *Ursus* 18(2): 217-229. http://dx.doi.org/10.2192/1537-6176(2007)18[217:HARTHB]2.0.CO;2	Wildlife conservation (black bears)

Additional reading		
11.	Duxbury, J. et al. 2015. Erosion rates in and around Shenandoah National Park, Virginia, determined using analysis of cosmogenic10 Be. *American Journal of Science* 315: 46-76.	Erosion
12.	Kanno, Y. 2015. Seasonal weather patterns drive population vital rates and persistence in stream fish. *Global Change Biology 21*: 1856-1870.	Weather effects on fish (trout)
13.	Kovacs, K.F. et al. 2013. Cost of potential emerald ash borer damage in U.S. communities, 2009-2019. *Ecological Economics* 69: 569-578. http://dx.doi.org.mutex.gmu.edu/10.1016/j.ecolecon.2009.09.004	Invasive species (emerald ash borer)
14.	NPS. 2014. Long-Range Interpretative Plan. Shenandoah National Park Virginia. National Park Service, U.S. Department of the Interior. http://www.nps.gov/shen/getinvolved/planning.htm. *See Blackboard*	Shenandoah NP
15.	NPS. 2015. Foundation Document Shenandoah National Park Virginia. April 2015. National Park Service, U.S. Department of the Interior. http://www.nps.gov/shen/getinvolved/planning.htm. *See Blackboard*	Shenandoah NP
16.	FS. 2013. Emerald Ash Borer Research: A Decade of Progress on an Expanding Pest Problem. US Forest Service Northern Research Station Research Review No. 20. Summer 2013. *See Blackboard*	Invasive species (emerald ash borer)
17.	Reich, J. 2001. Re-Creating the Wilderness: Shaping Narratives and Landscapes in Shenandoah National Park. *Environmental History* 6 (1): 95-117.	History
18.	Snyder, C.D. 2015. Accounting for groundwater in stream fish thermal habitat responses to climate change. *Ecological Applications* 25(5): 1397-1419.	Climate effects on fish (trout)

Preliminary outline and schedule of the course program

	Date	Topic	Lecturer	Literature (literature in brackets is additional – not required material)
1.	January 22	• Lecture: Introduction to the course • Explaining assignment presentations Shenandoah planning documents	• Ingrid Visseren-Hamakers	
2.	January 29	• **Presentations Shenandoah planning documents** • Explaining literature assignments	• Ingrid Visseren-Hamakers	• (NPS 2014; 2015)
3.	February 5	• Lecture: SEA and assignment	• Ingrid Visseren-Hamakers	• Chaker et al. 2006 • Fundingsland Tetlow and Hanush 2012
4.	February 12	• Lecture: Forest management & invasive forest insects and diseases	• Dr. Andrew Liebhold, US Forest Service	• (FS, 2013) • (Kovacs et al. 2013) • Lovett et al. 2015 • Popkin, 2015
5.	February 19	• Lecture: Wildlife conservation	• Dr. Jennifer Sevin, Virginia Tech	• Jaeger 1980 • Spencer 2007
6.	February 26	• Lecture: Policy and political aspects	• Jim Northup, Superintendent Shenandoah NP	• Adams and Hutton 2007
7.	March 4	• Lecture: Social aspects	• Dr. Katrina Powell, Virginia Tech	• Powell, 2007a; 2007b • (Reich, 2001)
Spring break March 7-13				
8.	March 18	• SEA assignment		
9.	March 25	• ALL DAY: Excursion Shenandoah NP headquarters		• Reid, 2004
10.	April 1	• SEA assignment		
11.	April 8	• ALL DAY: Excursion Shenandoah NP		
12.	April 15	• SEA assignment		
13.	April 22	• SEA assignment		
14.	April 29	• SEA assignment		
15.	May 6	• **Presentations** • **Hand in SEA report** (1 paper copy and on Blackboard)		