

Request for Approval of Transfer Credits

Date: 05/16/2019

Purpose: The Request for Approval of Transfer Credits (RATC) form is used to request approval of transfer credit that was awarded from another college or university. The RATC authorizes the Graduate College to make changes to the student's Academic Advisement Report (AAR), so transfer credits can be directed to meet a previous course requirement. Please refer to the most recent [Graduate Catalog](#), Graduate Academic Regulations chapter, Transfer Credits section for complete policy regulations.

Student Information

Student ID# 114105113
 First Name Paige
 Last Name Ellestad
 Email Address paigeellestad@u.boisestate.edu
 Graduate Program* Ecology, Evolution, & Behavior
 Advisor Sven Buerki
 Catalog Year* 2018/2019
 Anticipated Completion Term* Spring 2022 (ex: Spring 2020)

Courses to be Transferred

Please complete the table below with your transfer course information. An official transcript must be on file with the Graduate College for the institution(s) listed. You can enter up to 10 transfer courses on this form.

In the "How Transfer Credits Should be Applied" box, please indicate the Boise State University equivalent course name for direct replacement, or designate the requirement type (such as elective, emphasis area, etc) for each transfer course listed. If you need help determining the requirement type, please reference the degree requirements box from your selected [Graduate Catalog](#).

Delete	University	Course Prefix	Course Number	Course Title	How Credits Should be Applied	Credit	Grade	Semester	Year
Delete	Virginia Tech	NR	5724	Conservation Ecology	elective	3	A-	Fall	2016
Delete	Virginia Tech	NR	5884	International Environmental La	elective	3	A-	Fall	2016
Delete	Virginia Tech	NR	5884	Landscape Systems and Strate	elective	3	A	Fall	2016
Delete	Virginia Tech	NR	5884	Climate Change Science	elective	3	A-	Spring	2017

(Be careful not to create a blank entry, otherwise the form will not be able to submit)

Upload Supporting Documents

Please upload a syllabus for each course listed in the table by clicking on the **Add Supporting Documents** button at the bottom of the form.

If a syllabus is not available, please provide information on how your grade was assigned.

Decision

Action	Date		
Advisor	Sven Buerki	Approved	05/20/2019
Program Coordinator	James Smith	Approved	06/03/2019
Graduate College		Approved	06/04/2019

NR 5884: International Environmental Law & Policy

Instructor: Jennifer K. Wills

Course Description

International environmental law has been a dynamic legal sector over the past 30 years. Starting from a mere handful of agreements 30 years ago, focused primarily on pollution of the marine environment and the conservation of migratory birds and marine mammals, the field consists of over 700 agreements today, addressing diverse issues such as climate change, depletion of the ozone layer, regulation of trade in endangered species, and prevention of transboundary air pollution. Additionally, there has been steadily increasing impetus for expanding the purview of international environmental law, including causes of action for transboundary environmental harm and recognition of the rights of future generations to a healthy environment.

Knowing when to engage an attorney on a project is a critical skill for environmental professionals. We will examine environmental law and policy from several perspectives, including domestic (U.S.) and international.

Having successfully completed this course, the student will be able to:

- Explain the difference between treaties, protocols, law, and policy
- Explain jurisdictional responsibilities (e.g., what issues are addressed by international law versus domestic law)
- Research the laws that relate to environmental issues using available tools and resources
- Understand the role that science and economics play in law and policy
- Analyze a case or project for its legal and policy implications

This is a 3 credit hour “core” course in the Master of Natural Resources degree. It serves as a graduate-level introduction to the subject. There are no prerequisites.

Required Text

INTERNATIONAL ENVIRONMENTAL LAW AND POLICY, 4th EDITION by Hunter, Salzman, and Zaelke (Foundation Press 2011). ISBN-13 978-1599415383

The text is available at various online bookseller sites, including Amazon, which has the book in hard copy and paperback. When I last checked, paperback was not in stock new but there were many used copies available. The new hardback is very expensive. Unfortunately, there is no e-book available but the book can be rented. Reading assignments will not cover the book in its entirety.

Other resources will be posted our course page on Canvas and may include articles, videos, and treaty and statutory texts. Each week's reading(s) will be posted and available on Canvas by noon Eastern time on the Friday before the week they will be discussed. This is to give you time to start reading before class the following Monday, should you choose to do so. You could post your answers to the Discussion questions and your reflection as early as the Monday of class (or as late as the deadline---but please see the Discussion forum rubric about grading) and you can post responses as soon as others post their answers. Reflections will be due each Thursday, by 9:00pm Eastern time.

Educational Philosophy

This course is not independent study. It is interactive and structured to follow the standard semester-based academic calendar. I would like all students to feel comfortable taking this class and feel confident about asking questions. I want to cover the basics of law and policy before diving into some of the specific areas where you are likely to encounter legal issues as an environmental professional. Over time, you will become comfortable with these issues, some even to the point of questioning your attorney's advice (respectfully, of course)!

It is my expectation that you each bring different interests and experiences to class and that your collective interests will enrich the course. While my experience is mainly in U.S. environmental regulatory law, your interest may be state laws or the law of a particular country or in a particular subject matter. Ideally, you will be able to use your paper from this class in your professional portfolio.

Evaluation

Grades will be based on the following:

- Participation in the Discussions forum (55%)
- An individual Environmental Treaty/International Agreement Research Paper (45%, broken into three parts: 5%, 10% and 30%)

You will see in Canvas that each graded assignment is worth a certain number of points. For example, one week's Discussion forum is worth up to 10 points or 5.5% of your grade. Some weeks may have multiple discussions, in which case all discussions for the week will be worth up to 10 points total.

A	90-100%
B	80-89%
C	70-79%
D	60-69%
F	< 60

Participation in the Discussions forum:

Over the course of this class, there will be ten weeks when your participation in the Discussions forum will be graded. Each week will have graded Discussions except for the weeks when there is another graded assignment due as well as the last week of class. Those weeks there will be Discussions but they will not be graded.

Class participation in the Discussions forum for which you will be graded will include your reflection and responses to the questions I post that week. It will also include commentary, questions and debate on your classmates' responses to the questions. It will include responding to your classmates' posts on your responses. Reading and commenting on comments made by your peers facilitates peer-to-peer learning. To understand how you will be evaluated on your Discussion contributions, see the Discussions Assessment Rubric under the Files tab on Canvas. Keep in mind that Discussions should be an ongoing conversation the entire week—don't wait until the night before they are due to participate!

As noted above, participation in the Discussions forum includes posting a “reflection”. Writing reflections helps you organize thoughts, solidify lessons learned, and look for opportunities to extend those lessons to other opportunities. In your reflection, summarize your thoughts and reactions to the readings by responding to the guiding questions listed in the Discussion forum. Those questions will generally be 1) How did the reading reinforce and help better understand something you already know? 2) How did the reading contradict something you already know and how might you explore that topic further and resolve that contradiction? 3) How might you generalize a lesson you learned from the reading and apply that insight to a new different situation or different problem? Reference the readings as well as your past experience and cite your sources of information. Don’t stress: I am not looking for right or wrong answers. There will not be a reflection for Week 1.

Feel free to post other discussion topics such as a news item that you read that week that is relevant to international environmental law and policy. While I wouldn’t want to go off topic on a regular basis, if there is a major event or a contemporary issue that I missed in the readings, we should discuss it. I have added a separate, pinned discussion for hot topics or news items. Post news items there.

Having never taught an online course before, I am basing some of this on other syllabi from professors with more experience. This includes the fact that there doesn’t need to be many threads to have a great conversation. Before posting a new thread, be sure to see what else has been posted. Would your new thread be repeating something that’s already been said? If so, respond to the existing thread rather than starting a new one.

I am not going to provide comments on each post; rather, I will be looking at your posts generally, and evaluating according to the Discussion forum rubric. I will post the first Discussion grades by September 11 and then by the last day of the month after that (i.e., September 30; October 31; November 30).

Individual Environmental Treaty Research Paper

Each student will write a short (\leq 10 pages) research paper on a treaty or other international agreement of interest to the student. The paper should discuss the treaty, its impact on environmental protection, trade, and/or the global economy. The paper should be supported by references such as journal articles, books, and reports by prominent domestic and international bodies. You will get three grades for this paper. The initial grade will be 5% of your grade and will be for identifying the treaty you want to write about and why. The second grade will be 10% and will be for the outline of your paper. The remaining 30% will be for the paper itself.

Additional details about the organization of this paper will be provided.

Structure and Workload

This semester-long course covers 14 weeks plus a Finals week for wrap up. In each week we will have series of activities organized into Lessons (aka Modules). The activities will be strongly discussion-based and will provide a follow up to the reading(s) for the week. Activities are designed for individual work that is shared with the group. Reference material comes in the form of texts, journal articles, news, reports, policy documents, and videos. In total there are 10 graded Discussions and a paper. There are no exams.

For the sake of organization, the lessons are grouped into three blocks. The first block, *Understanding International Environmental Law and Policy*, runs eight weeks. The second block consists of three weeks focusing on *Hazardous Waste*. The remaining block focuses on *Treaties/International Agreements and Individual Assignments*, and will consist of learning about and reviewing the different treaties and international agreements addressed in those papers.

This is an asynchronous, online course, which means there will be no assigned time you must be available. You will have great flexibility in determining your own work times. This is a valuable strength from an online format and we should take advantage of it. However, if you only do work on this course one day of the week, you will miss out on the interaction with your peers, which is a highly valuable component of this course. I strongly advise regular activity throughout each week to get the most out of the 15 weeks, to ensure your interaction with your fellow students is vibrant and informative, and to get a decent grade for the course.

Logistics

This online course is delivered asynchronously via Canvas (<https://vt.instructure.com> -- log in using your VT PID and password). Canvas is the new VT Learning Management Software. If you are not familiar with Canvas, it is essential to learn how to use its tools as soon as possible. Log into Canvas and look for the training tab for students. I've included a Canvas Pointers document in the Files tab in Canvas.

You will find each week's activities and introductory material in the Pages tab on the Canvas course site. The Discussions tab is where you will do most of your work. To make it easier to navigate I have created a Module for each week that contains links to all the pages, discussion

threads, readings and assignments you need. The way discussions work in Canvas you will have to look at the Discussions tab to know whether there is a new post; you will not see this from the Modules tab.

Communication

Please note that I am required to use my VT email and your VT email addresses when communicating with you. Please plan to check your VT email regularly.

I am also available by phone, text, FaceTime, or Skype (jenkwills). Feel free to call me if necessary. I have another job so I may not be able to answer right away. Email is another way to set up a phone call. Setting up a time to talk is often beneficial.

Course questions that might be of interest to the rest of the class should be posted to the IELP Fall 2016 Discussion forum, which is meant for general course questions. If you think there's the possibility that others might benefit from the answer to your question, please post it! Likewise, if you have a question, please check the forum before emailing me, as I might have already posted the answer.

We are all colleagues; we have had different life experiences and we have different opinions. Respect and civil discourse are essential so feel free to disagree with your colleagues, and me, but do it respectfully.

University Resources

Having this course in an online medium yields many positives. But please remember that we still have resources in Blacksburg at our disposal. Three are worth mentioning here:

IT Support/Canvas

When you log into Canvas, there is a Help button. If you are having technical problems with the software, use this. There are solutions to common problems and an email link for troubleshooting. General computing questions are answered here:

<https://www.computing.vt.edu/>.

Library Support

The library has many books and articles available electronically. Become familiar with their resources—the librarians are happy to help you with this (<http://www.lib.vt.edu/>).

Writing Center Support

The Writing Center (<http://www.composition.english.vt.edu/writing-center/students.html>) is physically located in the library. If you happen to live in Blacksburg you should use the in-person services. Distance education students can arrange for a conference via Skype with a writing coach. This is an excellent teaching service resource. Excellent writing is invaluable and feedback is critical to improve this skill. Please note this is a teaching service, not an editing

service. In order to set up an appointment, use the online form at <http://www.vt.mywconline.com>.

If you have any further questions, email the assistant director, Jennifer Lawrence (jlwrnc@vt.edu).

Honor Code and Academic Standards

The tenets of the Virginia Tech Graduate Honor Code will be strictly enforced in this course, and all assignments shall be subject to the stipulations of the Graduate Honor Code as outlined in the Graduate Catalog at <http://www.ncr.vt.edu>. For more information on the Graduate Honor Code, please refer to the GHS Constitution, located online at <http://ghs.grads.vt.edu/>. Please contact me immediately if you have questions.

When bringing in outside materials to class discussion and/or your papers, please be sure to fully cite your sources using a standard citation format (such as APA or Chicago Manual of Style). When at all possible, you should go to primary material that is credible and/or scholarly (peer-reviewed journal articles, government documents, NGO white papers, news articles from respected news outlets, etc.). Please steer clear of unreliable web sources such as Wikipedia!

We take plagiarism very seriously and will take infractions to honor court. If you have any questions about what constitutes plagiarism, don't guess--ASK! In general, your writing must be your own unless it is in quotation marks. Simply changing a word or two from someone else's writing does not mean that you are paraphrasing – that's still plagiarism. Not citing paraphrased work is also plagiarism. In other words, if the material you are discussing is not your own and is not common knowledge, it needs a citation. Again, please ask if you have any questions about this as the semester proceeds.

Accommodations

If you need adaptations or accommodations because of a disability please contact me as soon as possible. You will also need to contact [Services for Students with Disabilities](#).

In the case of a personal or medical emergency that impacts your ability to participate in the class and/or keep up with coursework, the sooner I'm aware the more assistance I can provide so please contact me directly at jenwills@vt.edu or (404) 408-3878 or have someone close to you do so.

About Jennifer



Moab, Utah in April 2016

working at EPA, I was a judicial law clerk with the Kentucky Supreme Court and the U.S. Court of Appeals for the Sixth Circuit. I graduated from the University of Kentucky College of Law. I'm from Kentucky, now living in Virginia with my family. I love mountain biking, trail running and gardening.

I am an environmental lawyer with the United States Environmental Protection Agency. I started with EPA in the regional office in Atlanta where I worked on recovering funds for the cleanup of hazardous waste sites as well as addressing sites with serious environmental hazards. I have worked in EPA's Washington, D.C. office for more than 9 years focusing on the regulation of chemicals, including those found in consumer products (e.g., lead in paint, flame retardants in furniture, phthalates in plastics). I've worked on international issues during my time at the EPA as well, including a trip to the United Nations in New York for the Commission on Sustainable Development. I've also written about hazardous materials in the international context. In 2011, I was a Brookings Fellow in the office of Senator Frank R. Lautenberg where I worked on a wide variety of environmental issues. Prior to

SYLLABUS – Fall 2016

The syllabus is subject to change as new topics and case studies are available or current events create important learning opportunities. NOTE: Each section runs one week (Monday through the following Sunday). Some topics will span two weeks but the syllabus and discussions are organized by individual weeks. We will use hazardous waste as an example throughout the course to provide context for the concepts you will be learning.

Unit I: Introduction to International Environmental Law and Policy

Week One (08/22 – 08/28): Class Introductions and Global Environmental Problems

Week Two (08/29 – 09/04): Science and Technology

Week Three (09/05 – 09/11): Economics and Environmental Protection

Week Four (09/12 – 09/18): Internatl Environmental Lawmaking: International Agreements

Week Five (09/19 – 09/25): Internatl Env. Lawmaking: Agreements (cont) & Customary Law

SELECT TREATY/AGREEMENT FOR PAPERS: Submit by Friday, September 23 at 11:59pm Eastern.

Week Six (09/26 – 10/02): Making Internatl Environmental Law Work

Week Seven (10/03 – 10/09): Principles & Concepts in Internatl Environmental Law

Week Eight (10/10 – 10/16): Principles & Concepts in Internatl Environmental Law (cont)

Unit II: Hazardous Waste: Environment Impact and International & Domestic Regulation

Week Nine (10/17 – 10/23): Hazardous Waste and the Environment

OUTLINES OF PAPERS DUE: Submit by Monday, October 17, at 11:59pm Eastern

Week Ten (10/24 – 10/30): Import and Export of Hazardous Waste

Week Eleven (10/31 – 11/06): Disposal of Hazardous Waste

Unit III: Treaties and Individual Assignments

Week Twelve (11/07 – 11/13): Treaties and Other International Agreements

INDIVIDUAL TREATY PAPERS DUE! Post to Discussion forum by Sunday, November 13, at 11:59pm Eastern

Week Thirteen (11/14 – 11/20): Treaties and Other International Agreements

THANKSGIVING HOLIDAY (11/19-11/27)

Week Fourteen (11/28 – 12/04): Discuss Individual Assignments

Week Fifteen (12/05 – 12/07): Discuss Individual Assignments (cont)

Conservation Ecology

Fall Semester 2016 - Online

NR 5724 - 3 Credits

Virginia Polytechnic Institute and State University

College of Natural Resources and Environment

National Capital Region

INSTRUCTOR

Megan M. Draheim, Ph.D.
mdraheim@vt.edu

ONLINE OFFICE HOURS

By appointment (online hours available via phone or Skype)

REQUIRED TEXT

R.B. Primack. 2014. *Essentials of Conservation Biology* (6th Edition), Sinauer Associates.
ISBN: 978-1-605-35289-3

Other readings will be available on Scholar.

The course syllabus is a work in progress. Changes and updates will be made to accommodate the needs and interests of the students. Modifications may also be made if natural resource issues surface during the semester that may provide a unique learning experience for students. I also consider this syllabus to be a contract between my students and myself. We are both responsible for everything stated within this document!

COURSE DESCRIPTION

Human activities are having a cumulative effect on the natural systems upon which life depends. Future land and ocean management decisions will occur in the face of unprecedented change and uncertainty in environmental conditions. As a result, more integration of the traditional natural resources fields will be required to develop innovative approaches to preserve biodiversity and ensure the sustainability of the earth's ecosystems, for both our health and the health of the planet. Conservation Ecology provides insights to the many benefits and services that nature offers and explores strategies for management options to sustain ecological integrity and the production of goods and services. It is an interdisciplinary approach to harmonizing the interactions between people and nature at ecosystem scales in both urban and rural landscapes. The course is designed to explore the knowledge, theories, and research related to the total environment in which we practice conservation. Emphasis will be on the synthesis and integration of knowledge, skills and abilities that are needed as conservation issues become more complex. The course utilizes a problem-based format to

encourage students to actively participate in their own learning by researching and analyzing real-life problems. The instructor's role is to model inquiry strategies and guide students in exploring relevant content.

GOAL AND EDUCATIONAL OBJECTIVES:

Goal: To provide students with a foundation for future learning that will allow them to integrate knowledge of the conservation ecology disciplines and generate innovative approaches that will enhance and sustain natural resources for future generations.

Course Objectives: Upon completion of the course, students will be able to:

- Develop a framework for critical thinking about conservation ecology problems and issues, and relate that knowledge to practical management applications.
- Incorporate current scientific knowledge and technologies into holistic analyses of variables that affect conservation issues.
- Identify the potential for conflict among simultaneous management objectives.
- Recognize and appreciate the roles and relationships of the economic and social sciences in the conservation of renewable natural resources.
- Estimate how changing environmental conditions may impact biodiversity at the genetic, species and ecosystem levels.
- Identify factors and processes that threaten biological integrity and estimate their potential impacts.
- Explore careers related to a holistic approach to natural resource management.

COURSE CALENDAR:

Note that each section runs two weeks (Monday through the following Friday). This will allow for a more flexible schedule in terms of the online discussion forums, but keep in mind that the forum discussions should be an on-going process – don't wait until Thursday night to participate, or your participation grade will suffer! Also note that, although you get two weeks for each section, the sections do overlap. In other words, a new section starts each Monday. This might be confusing at first, but I've found it works well to facilitate class discussion. See the next section for more on this.

Unit I: Introduction to Conservation Ecology

Section One (August 22 – September 2): What is Conservation Ecology?

Reading:

- Primack Chapter One
- Additional readings on Canvas

Assignment:

- Student introductions posted to Canvas early in the week
- Forum discussion

Section Two (August 29 – September 9): Biodiversity

Reading:

- Primack Chapters 2 and 3
- Additional readings on Canvas

Assignment:

- Forum discussion
- Break into groups for group assignment

Section Three (September 6* – September 16): Human Dimensions of Conservation Ecology, Part I

Reading:

- Primack Chapters 4 and 5
- Additional readings on Canvas

Assignment:

- Forum Discussion
- Topic choices for group assignment due September 7
- Introduction to individual citizen science project

*Note the University is closed on September 5th for Labor Day

Section Four (September 12 – September 23): Human Dimensions of Conservation Ecology, Part II

Reading:

- Primack Chapter 6
- Additional readings on Canvas

Assignments:

- Forum discussion

Unit Two: Major Threats to Biodiversity

Section Five (September 19 – September 30): Extinction

Readings:

- Primack Chapters 7 and 8
- Additional readings on Canvas

Assignments:

- Forum discussion

Section Six (September 26 – October 7): Threats to Biodiversity, Part I

Reading:

- Primack Chapter 9
- Additional readings on Canvas

Assignments:

- Forum discussion

Section Seven (October 3 – October 14): Threats to Biodiversity, Part II

Reading:

- Primack Chapter 10
- Additional readings on Canvas

Assignments:

- Forum discussion

Unit Three: Conservation Applications and Solutions

Section Eight (October 10 – October 21): Population Ecology

Reading:

- Primack Chapters 11 and 12
- Additional readings on Canvas

Assignments:

- Forum discussion

Section Nine (October 17 – October 28): Conservation Techniques

Reading:

- Primack Chapters 11 and 12
- Additional readings on Canvas

Assignments:

- Forum discussion

Section Ten (October 24 – November 4): Protected Areas, Part I

Reading:

- Primack Chapters 15 and 16
- Additional readings on Canvas

Assignments:

- Forum discussion

Section Eleven (October 31 – November 11): Protected Areas, Part II

Reading:

- Primack Chapter 17
- Additional readings on Canvas

Assignments:

- Forum Discussion
- GROUP ASSIGNMENT DUE NOVEMBER 7

Section Twelve (November 7 – November 18): Beyond Protected Areas

Reading:

- Primack Chapters 18 and 19
- Additional readings on Canvas

Assignments:

- Forum Discussion

Section Thirteen (November 14 – December 2)*: Sustainable Development and Conservation Ecology

Reading:

- Primack Chapters 20 and 21
- Additional readings on Canvas

Assignments:

- Forum discussion
- CITIZEN SCIENCE ASSIGNMENT DUE MONDAY DECEMBER 5

*Note that because of Thanksgiving Break this section is longer than usual

Section Fourteen (November 28 – December 7): Looking Forward

Reading:

- Primack Chapter 22
- Additional readings on Canvas

Assignments:

- Forum discussion

Final Exams Distributed Friday December 9th at 5pm and due Tuesday December 13 at 11pm

- Finals will be open book/open note, but timed (3 hours)

CANVAS

Course announcements, information, assignments, and other documents will be posted on Canvas, accessible with your PID and Password at www.canvas.vt.edu, or Quick Links on the Virginia Tech Home Page. If you are not yet familiar with Canvas, I highly recommend spending some time learning the system. We rely heavily on Canvas for both online and in-person classes in our department, so spending some time now will save you a lot of trouble later. VT has helpful documents and support staff if you have questions, and of course feel free to ask me, as well.

OVERVIEW OF ASSIGNMENTS:

Each week students will be required to complete course readings, including chapters from the required text (Primack) as well as additional readings, which will be available on the course's Scholar site. There is quite a bit of reading in the class because of the amount of ground we need to cover; however, the amount of reading is typical of most graduate courses. If you haven't developed your ability to read quickly, this might be a good

opportunity to do so! Being able to skim material while retaining the major points is an important life skill, especially in this field (where new research is constantly adding to our understanding of complex issues).

This is a writing intensive course, in part because excellent writing skills are necessary to have a successful career in the natural resources field, and in part because writing will be the main way we will communicate in our online classroom. Students are expected to participate weekly in online forum discussions related to the readings and other course work; this will constitute the majority of your participation grade. In addition, you will have two major assignments during the course of the semester. One of the assignments will be a group project, and the other an individual project. In general, forum discussions will be due Friday nights at 11:55 pm and the forum will be closed at midnight. However, in the case of forum discussions I highly recommend you “post early and post often,” as our goal will be to have a conversation about our weekly topics, not a series of individual posts (remember that a good deal of your grade will reflect your participation in these forum discussions). See the discussion forum evaluation section later in this syllabus for more information.

I expect you all to be respectful of each other during class discussions. We will have students with a variety of backgrounds and perspectives, so I anticipate that from time to time some of you will disagree with others. This is actually great, I think, and where we can all learn from each other. However, it should go without saying that these sorts of conversations must be conducted sensitively and with respect. I generally have students with a wide variety of experiences in this class, from those with years of experience in the natural resource or conservation field to those with very little (or even none). In my opinion, this variety makes for great classes, as we will bring different perspectives to the table, and I expect that we will all learn from each other.

More details about your major projects will be provided in separate documents as the semester goes on.

The final exam will be cumulative, made up primarily of essay-type questions. It will be open book and notes; however, it will be timed (three hours maximum allowed).

SOURCES, CITATIONS, AND SUBMISSIONS

I will be posting a separate document on writing assignments to Scholar, but wanted to raise a few important points here. In most of your assignments you will be using research to back up your claims, so a word about sources. I use the “**credible or scholarly**” test when evaluating whether or not a source is appropriate to use in scholarly work. Many web sources do not fall into that category, including sites like Wikipedia and other web-only based reference sites, as well as many “random” news sites (unless you are sharing an article with the class for purposes of discussion, or have a good reason for citing it). On the other hand, government documents and NGO white papers taken from the web (from established, credible NGOs) are appropriate for this course, as are journal articles (either obtained from the VT library site or directly through the journal’s website if it’s open access). Note that citing webpages directly is not appropriate. When at all possible,

you should go to primary material (in other words, read and cite the actual journal article, not a news article written about it). If you are ever uncertain about whether or not a source passes the “credible or scholarly” test, please ask! I’d much rather have you come to me than take points off of an assignment. Also, see below in the “Honor Code” section as for some thoughts on plagiarism.

Please submit all assignments as Word documents, and use the following titling format: Last Name(s)_Assignment Title_CEFa16. For example, if I were turning in the Case Study assignment, the title of my document would be: Draheim_Case Study_CEFa16. For the group assignments, be sure to include *all* of your group members’ last names in the document title. **Points will be taken off for document titles that do not follow this format.** This might seem like a small point, but it makes my life much easier if everyone uses this format, especially as I teach multiple classes.

GRADING

Course participation: 30%

Biome Assignment: 25%

Citizen Science Assignment: 25%

Cumulative Final: 20%

A: 94-100%

A-: 90-93%

B+: 87-89%

B: 84-86%

B-: 80-83%

C+: 77-79%

C: 74-76%

C-: 70-73%

D: 60-69%

F: < 60%

LATE POLICY

You should make every effort to submit assignments to Scholar on time. However, if you know ahead of time that you will not be able to do so, please let me know as soon as possible – it’s much easier for me to grant an extension if I know ahead of time then if I do not know until after the due date has passed.

In general, *unexcused* late assignments will be docked points according to how late they are. Assignments turned in 1-2 days late will be docked 3% of the assignment’s grade.

Assignments turned in 3-6 days late will be docked 7% of the assignment’s grade.

Assignments turned in 7-13 days late will be docked 15% of the assignment’s grade, and assignments turned in 14-21 days late will be docked 30% of the assignment’s grade.

Assignments more than 3 weeks late will not be accepted (**all of this is true unless prior arrangements have already been made**).

PROFESSOR AVAILABILITY

As this is an online course, most of our communication will take place via writing, either through Scholar or through email. **Please note that all course-related email communication will need to go through your VT email account, per University requirements.** It is your responsibility to check this account on a regular basis; not doing so could result in you missing important information. This is true not only for this class but for every class at VT.

I will be actively participating in the class Mondays at 9am through Thursdays at 5pm. If you post a question or send me an email within that timeframe, I will respond to you within 24 hours (although I usually am able to give you a much shorter turn-around time). If you send me an email Thursday at 6pm, I might be able to respond to you before Monday, but don't be surprised if you do not hear from me until then.

Important: When you send me an email about the course, please include "Conservation Ecology" in the subject line. Otherwise it might take me longer to respond to your email.

I will be traveling from time to time during the semester, and this might slightly alter those timeframes. I will try to minimize this as much as possible but will ask for your patience. My current travel and “offline” dates are below. I don’t anticipate being offline for more than a day or two at any given time, even when I am out of town, but there might be time zone differences, etc. More dates might be added as the semester goes on.

October 3-4
October 11-12
October 17

I will also be available via Skype, Google Hangout, or phone when needed. My schedule is generally flexible, so I am sure we will be able to set up a time to talk if you like.

For those of you outside of the National Capital region, note that all times are given in Eastern Standard/Daylight Time.

GRADUATE HONOR CODE

The tenets of the Virginia Tech Graduate Honor Code will be strictly enforced in this course, and all assignments shall be shall subject to the stipulations of the Graduate Honor Code as outlined in the Graduate Catalog at <http://www.ncr.vt.edu>. For more information on the Graduate Honor Code, please refer to the GHS Constitution, located online at <http://ghs.grads.vt.edu/>. Please contact the instructor immediately if you have questions.

I take plagiarism very seriously, and will take infractions to honor court. If you have any questions about what constitutes plagiarism, please ask! In general, your writing must be your own unless it is in quote marks (and please don’t over-quote!). Simply changing a word or two from someone else’s writing does not mean that you are paraphrasing – that’s still plagiarism. Not citing paraphrased work is also plagiarism. In other words, if

the material you are discussing is not your own and is not common knowledge, it needs a citation. Again, please ask if you have any questions about this as the semester proceeds.

In addition, keep in mind that all writing assignments must be original work, written specifically for this class. In other words, do not recycle a paper from another class for an assignment in this class.

SPECIAL ACCOMMODATIONS

If you need adaptations or accommodations because of a disability, or if you have emergency medical information to share with me, please contact me as soon as possible.

COURSE EVALUATIONS

I am always looking for ways to improve my courses, and will value any input that you have. You will be asked to complete a formal course evaluation at the end of the semester, but I also encourage you to provide any suggestions or comments that you might have during the semester, so that adjustments can be made if necessary. I also might ask you to fill out an optional, anonymous survey after your final grades are posted which will help me improve this course in the future.

FORUM DISCUSSION EVALUATION

To my mind, one of the most important parts of graduate school is the discussion you have with your classmates and professors. Since this is an online class, we need to make some adjustments in order to keep this aspect of graduate work. Luckily, I think I can safely say that much of the discussion I've had in online courses at VT has exceeded class discussions in face-to-face courses I've taught elsewhere. It does require a bit of effort from everyone, though.

The purpose of the discussion forum is to engage in a conversation, not post essays that simply reiterate what other students have already said. To that end, it is also important to follow through on conversation threads and respond back to your classmates. In other words, ideally you'll post to the same discussion a few times over the course of the week, not just routinely post once a week to multiple discussions. Note that you do not have to respond to every question every week!

So how do you earn an "A" for your participation grade? I'd say that as long as you post to the forum several times a week (it does not need to be everyday), follow through on discussions, bring outside resources and your own experiences into the conversation where appropriate, and are respectful of everyone's viewpoints, you'll be in the "A" range. In many ways, posting to the forum several times a week and not just once is the most important point here, as this is how we'll advance our conversation (if everyone waits until Thursday night to post, the discussion will be truncated).

Note that every post does not have to be perfect! In other words, don't let perfection be the enemy of the good. This is especially true in follow-up discussion, for example, but never feel that you can't respond to a post simply because you don't have enough time to write a lengthy essay and do outside research.

Finally, you don't have to finish all of the readings before you start posting; often times the questions refer to one specific reading, so you can get started early. I will give you some mid-semester feedback, but feel free to ask me how you're doing at any point during the semester.

Climate Change Science

Instructor: Dr. Adam J. Kalkstein

Phone: 302-584-0644 (mobile)

E-mail: climate@vt.edu

Description and Justification:

As average global temperatures continue to rise, it is imperative to not only understand the science behind climate change, but also its potential ramifications and impacts. Using scientific research, this course begins by exploring the why, how, and when behind climate change. Contemporary readings will be used to spark discussion and debate surrounding the potential implications of climate change, with topics ranging from natural disasters to human health. The course will culminate in a “Congressional Briefing” students will prepare synthesizing their knowledge of the subject, as well as proposing a political solution.

Climate change is one of the preeminent environmental issues of our time, and a deep understanding of this problem is vital for students in the Master of Natural Resources (MNR) program. This course will not only discuss the science and impacts of climate change, but it will also allow students to think critically to develop their own potential solutions to the problem. The ability to analyze a problem, examine its potential ramifications, and then to develop solutions represents skills that are imperative to any graduate student. Ultimately, this course will allow students to be active, contributing members of the scientific community with regards to climate change.

Text:

This course will contain several readings per week from peer-reviewed publications and/or professional organizations. In addition, each student will participate in a “book club” throughout the semester, with students selecting one of three possible books, each containing a different perspective on climate change.

Option 1:

Title: Climate Change: The Facts

Edited by Alan Moran

ISBN: 978-0986398308

Option 2:

Title: This Changes Everything: Capitalism vs. The Climate
Author: Naomi Klein
ISBN: 978-1451697391

Option 3:

Title: Climate Change: What Everyone Needs to Know
Author: Joseph Romm
ISBN: 978-0190250171

Option 4:

Title: The Madhouse Effect: How Climate Change Denial Is Threatening Our Planet, Destroying Our Politics, and Driving Us Crazy
Author: Michael Mann and Tom Toles
ISBN: 978-0231177863

Goals:

Having successfully completed this course, the student will be able to:

- Describe the physical processes responsible for earth's greenhouse effect
- Identify the potential causes, both natural and anthropogenic, behind global climate change
- Recognize the numerous impacts of climate change on the earth system, including effects on human health and activity, ecosystems, oceans, and the atmosphere
- Discuss the mission of the Intergovernmental Panel on Climate Change (IPCC) and the Kyoto Protocol, and outline some of the controversies surrounding them
- Communicate the uncertainty and complexity related to the science and impacts of climate change
- Synthesize knowledge about climate change to propose possible solutions which will be outlined in a final paper simulating a congressional briefing

Prerequisites/Requirements:

Students must be of graduate standing.

Evaluation:

It is possible to accumulate 250 points in this course. The breakdown of points is as follows:

Reflections: 10 points over 9 weeks = 90 points total (36% of grade)

Responses: 5 points over 9 weeks = 45 total (18% of grade)

Book Club: 50 points total (20% of grade)

 Book Club Plan = 2 points (group grade)

 Being a leader = 5 points (indiv)

Being a secretary = 3 points (indiv)
Synopsis turned in each week as group = 5 points (x3) = 15 points (group grade)
Book Review = 15 points (indiv)
Individual contribution grade = 5 points (indiv)
Book Review Discussion Postings = 5 points (indiv)
Policy Paper: 65 points total (26% of grade)

Components of Course

1. REFLECTIONS:

Why?

A reflection on the readings ensures that you are thinking about what you are reading. It also allows us to interact with each other and discuss the readings.

What?

Every week you will be given your readings on Monday (except for the first week).

You will then have to post a reflection of the reading in the week's forum.

This is not simply a summary, but rather shows that you have thought about the material. It should be approximately a page and should include *at least* two of the following elements to demonstrate that you have read the material.

- A question you'd like to pose to others.
- What puzzles you?
- Implications of what you read.
- An application of what you read.
- An example from elsewhere that fits something you read.
- A limitation of the study you read.

2. RESPONSES

Why?

I want us to learn from each other!

What?

You will need to read at least two other reflections and respond to each in the forum. You can respond with clarification, answer a question they posed, disagree (respectfully of course!), or elaborate.

3. BOOK CLUB

Why?

There are many opinions out there on climate change. This will allow you to read a book written from one scholar's perspective, engage in discussion with your "book club", and review the book for others.

What?

There are many elements to the book club. Throughout the semester, you will each take a turn acting as a leader and secretary (see Book Club Plan for details on these roles) of your book club. Three times during the semester, you will be required to hold a conference call with each other and discuss the readings. You will also be required to post a synopsis online for others to read. Individually, you will write a book review on what you have read. Finally, as a class, we will compare and contrast our respective books in an online discussion forum.

Note: Please see Book Club Book Review Instructions for more information.

4. POLICY PAPER

Why?

Encourages students to think critically to apply the concepts they learned into practical solutions.

What?

The course will culminate in a congressional briefing-style paper, where students are now "experts" and must brief Congress with an answer to the question "What can we do about climate change?"

Your paper must cite research so it would be prudent throughout the semester to take notes for this final paper, and to keep track of the sources so that you cite them appropriately.

Honor Code

The Undergraduate Honor Code pledge that each member of the university community agrees to abide by states:

"As a Hokie, I will conduct myself with honor and integrity at all times. I will not lie, cheat, or steal, nor will I accept the actions of those who do."

Students enrolled in this course are responsible for abiding by the Honor Code. A student who has doubts about how the Honor Code applies to any assignment is responsible for obtaining specific guidance from the course instructor before submitting the assignment for evaluation. Ignorance of the rules does not exclude any member of the University community from the requirements and expectations of the Honor Code. For additional information about the Honor Code, please visit: www.honorsystem.vt.edu.

COURSE SCHEDULE:

Week	Assignments
Jan 17	Reading week (reflection due Thurs, responses due Sunday)
Jan 23	Reading week (reflection due Thurs, responses due Sunday)
Jan 30	Reading week (reflection due Thurs, responses due Sunday), book club plan due by Feb 5
Feb 6	Reading week (reflection due Thurs, responses due Sunday)
Feb 13	Book Club Week (leader questions due Mon, secretary post due Sun)
Feb 20	Reading week (reflection due Thurs, responses due Sunday)
Feb 27	Reading week (reflection due Thurs, responses due Sunday)
March 6	SPRING BREAK
March 13	Book Club Week (leader questions due Mon, secretary post due Sun)
March 20	Reading week (reflection due Thurs, responses due Sunday)
March 27	Reading week (reflection due Thurs, responses due Sunday)
April 3	Book Club Week (leader questions due Mon, secretary post due Sun)
April 10	Book Review Due on April 10; Participate in discussion
April 17	Reading week (reflection due Thurs, responses due Sunday)
April 24	Policy Paper Work Week
May 1	Policy Paper due on May 1!

Course Syllabus

[Jump to Today](#)

NR 5884: Landscape Systems and Strategies

Virginia Tech

Dr. Dan Marcucci

Hay, Houses, and Copper in Utah Valley

Course Description

The cumulative effects of global trends such as increasing population, expanding cities, improving living standards, accelerating climate change, shifting agriculture, and moving coastlines combine with local pressures on individual landscapes. Over the next century, these keystone processes will fundamentally alter landscapes across the globe creating new challenges for productivity, sustainability, resilience, and adaptability. Landscapes are definable frames of human activities and natural systems, ranging from highly altered, such as urban or agricultural lands, to predominately natural, such as wild or resource lands. We rely on landscape organization for essential social and ecosystem services. The imperative for sustainability requires that we engender conservation, development, and governance processes that treat landscapes with a long view.

Landscape Systems and Strategies examines sustainability at the pivotal scale of the landscape. By planning large landscapes for both the intermediate and long term, we will develop the theory and conceptual knowledge to approach global sustainability as an activity of intellectual discovery leading to application. The objective is to construct a vision for sustainable landscapes, and to acquire tools that can affect landscape change.

Course Format and Prerequisites

This is a core course (3 credit hours) in the Master of Natural Resources degree. It serves as an introduction at the graduate level. It is taught primarily as a small group seminar with some aspects of a workshop course integrated into the activities.

There are no prerequisites.

Syllabus

The Reconnection Agenda

1. The Landscape Concept: Landscape Connections/Disconnections
2. Functions, Services and Values of Landscapes
3. Landscape Change and Resilience
4. Physical Connections in the Landscape
5. Social Connections in Landscapes
6. The Reconnection Agenda for Future Landscapes

Landscapes as Coupled Natural and Human Systems

7. Biodiversity Planning/San Diego County
8. Cities in the Wilderness – Endangered Species & Protected Areas
9. Discovering The Paraná Delta
10. Sustaining The Paraná Delta
11. Landscape Services on the Marcellus Play
12. Marcellus Landscape Impacts
13. Isla de Vieques: Landscape Development, Island Biogeography, & Las Bombas
14. Vieques Futures

Case Studies

- Personal Landscape
- Willamette Basin, Oregon
- San Diego County, California
- Paraná River Delta, Argentina

- Marcellus Play, Mid-Appalachians
- Isla de Vieques, Puerto Rico

The syllabus and case studies are subject to change as new topics and case studies are available or current events create irreplaceable teachable moments.

Learning Outcomes

Having successfully completed this course, the student will be able to:

- evaluate the function and services of specific landscapes
- describe landscape creation and the processes of change of specific landscapes
- integrate 21st century urban centers with their ecoregional landscapes
- appraise the impacts of landscapes on culture and culture on landscape
- envision strategies for sustaining and sustainable landscapes

Educational Approach

This course is not independent study. It is structured and interactive, and hopefully innovative. My philosophy is to provide you with the resources and structure for you to gain a strong understanding of Landscape Systems and Strategies for a sustainable 21st century. Often, I will be presenting case studies and real world examples first, so we have a shared context and an understanding of the purpose for your detailed studies. In other words, we are going to start with the landscapes. Then we will go into the detailed knowledge of landscape ecology. The Selman (2012) text was written in Europe and concentrates heavily on landscapes from the highly developed world. We will expand the lessons to look at cases from around the globe, including the United States.

It is my hope that you each bring different interests to the course and that your collective interests enrich the course. While I have scholarly interests in ecoregional planning, you may be interested in a network of rain gardens across a neighborhood. This course is intentionally designed for you to select specific topics and individual landscapes for more

in depth inquiry.

Texts and Resources

Case study analysis and writing is the core pedagogical element of the course. The structure is inverted in that case studies (contemporary, historical, and projected) are provided first to create a shared context for understanding sustainable landscapes and more importantly, addressing the cumulative effects of 21st century trends. Reference material is presented in the form of textbooks, scholarly articles and published reports as resources to bring to discovery, analysis, and application. As much as possible I will use multiple forms and media in the lesson plans. Case studies are provided from a variety of published and online resources.

Required texts:

We will use this text in its entirety. You should buy it. It is also available as an e-book from the publisher. The library has a hard copy. There is an e-book at the library also, although I believe only one of you can be reading it at a time.

- Selman, Paul. 2012. *Sustainable Landscape Planning: The Reconnection Agenda*. Pp. 166. (Paperback: \$57.95. 978-1-84971-263-7)

We will also be using this book in our first project. It is a classic of 20th century American conservation writing. Many of you will have read it, but we will look at it anew with a landscape perspective. In any case it is worth having on your shelf, so buy it.

- Leopold, Aldo. 1949. *A Sand County Almanac: and Sketches Here and There*. (There are many editions – choose one that suits you.)

Selected other readings:

Meinig, DW. 1979. “The Beholding Eye” in *The Interpretation of Ordinary Landscapes*.

Tuan, Yi-Fu. 1974. *Topophilia*. Chapters 8 and 9.

Millennium Ecosystem Assessment, 2005. *Ecosystems and Human Well-being: Synthesis*. Chapter 2: How have ecosystem services and their uses changed? Island Press, Washington, DC. Pp. 39-48.

Müller, R. de Groot & L. Willemen. 2010. Ecosystem Services at the Landscape Scale: The Need for Integrative Approches. *Landscape Online* 23, 1-11.

Marcucci, Daniel J. 2000. Landscape history as a planning tool. *Landscape and Urban Planning* 49 (2000) 67-81.

Botequilha Leitao, Andre; Joseph Miller; Jack Ahern; Kevin McGarigal. 2006. Measuring Landscapes: A Planner's Handbook. Chapter 1: Landscape Ecology: A Spatial and Human-Oriented Ecology. Island Press. Pp. 1-26.

Babbitt, Bruce. 2005. Cities in the Wilderness: A new vision of land use in America. Chapter 2: Cities in the Wilderness. Island Press. Pp. 55-96.

Layzer, Judith A. 2008. Natural Experiments: Ecosystem-Based Mangement and the Environment. Chapter 4: Saving San Diego's Coastal Sage Scrub. MIT Press. Pp. 71-101.

Recommended Texts:

There is no need to buy the recommended texts. These have good background knowledge that informs this course. We will not reference these directly. They are offered as further reading. Collectively, they provide a strong reference base for our topics.

- Farina, Almo. 2006. *Principles and Methods of Landscape Ecology: Towards a Science of Landscape*.
- McHarg, Ian. 1995 (1970). Design with Nature. New York: Wiley & Sons. (Paperback: \$65.00. 978-0-471-11460-4)

- Selman, Paul H. 2006. *Planning at the Landscape Scale*. Routledge.
- Steiner, Frederick. 2016. *Human Ecology: How Nature and Culture Shape our World*. Washington, DC: Island Press.
- Steiner, Frederick. 2008. *The Living Landscape: An Ecological Approach to Landscape Planning*. Second Edition. Washington, DC: Island Press.
- Steinitz, Carl; Arias, Hector; et al. 2003. *Alternative Futures for Changing Landscapes: The Upper San Pedro River Basin in Arizona and Sonora*. Washington, DC: Island Press.

Structure and Workload

This semester-long course covers 14 weeks plus a final week for wrap up. In each week we will have series of activities organized into lessons (aka modules). The activities will be strongly discussion-based on reading and writing with other fun stuff (mapping, videoing, etc.) thrown in. Activities are designed for individual work that is shared with the group as well as some collaborative group work. Reference material comes in the form of texts, journal articles, news, reports, policy documents, videos, maps, and anything else we can get our hands on. **In total there are 14 graded Lessons.** There will be essentially one Lesson per week, starting on Wednesdays, with initial work done by the next Tuesday. The plan is for follow up work on the Lesson to continue past that. There will also be an ungraded introduction called “Lesson 0,” which contains personal introductions and a commons for the course. **There are no exams in this graduate seminar. There will be two graded projects that relate are in the form of personal essays.** One will be due around midterm and the other towards the end of the semester.

For the sake of organization, the lessons are grouped into blocks. The first block, “The Reconnection Agenda,” runs six weeks and follows the structure of our required text (Selman 2012). Selman’s main thesis centers on the connections, or disconnections, in the cultural landscape and what to do about them. The second block is strongly case study based and is titled “Landscapes as Coupled Natural and Human Systems.” We examine the biophysical concepts of landscape by looking at the core principles of landscape

ecology. We also focus on the pragmatic issues for sustainable landscapes in the 21st century.

This is an asynchronous online course, which means there will be no assigned time you must be available. You will have great flexibility in determining your own work times. This is a valuable strength from the format and we should take advantage of it. However, if you only do work on this course one day of the week, you will miss out on the interaction with your peers, which is a highly valuable component of this course. I strongly advise steady activity throughout each week to get the most out of the 15 weeks.

Logistics

This course will be conducted online asynchronously via Canvas (<https://vt.instructure.com> -- log in using your VT PID and password). Canvas is the new Learning Management Software (aka, LMS <== isn't that a dreadful name?). **If you are not familiar with Canvas, it is essential to learn how to use its tools as soon as possible.** Log into Canvas and look for the training tab for students. Also, there is a standing Discussion for us to troubleshoot learning Canvas (yes, I do get the irony of that!). Canvas has some advantages over other LMS, but in my experience, you have to be vigilant to make the Discussions work effectively. More about this later.

You will find the activities and introductory material to the week's content for each unit in the Pages tab tool on the Canvas site for this course. The Discussions tab is where you will do most of your work. To make it easier to navigate I have created a Module for each Lesson that contains links to all the pages you need. HOWEVER, the way discussions works in Canvas you will have to look at the Discussions tab to know what is new.

Communication

Please note that I am required to use my VT email and your VT email addresses when communicating with you. Please plan to check it regularly.

I am also available by phone, text, FaceTime, or Skype. Feel free to call me if necessary. Setting up a time to talk is often beneficial.

We are all colleagues, healthy debate is good. Of course, respect and civil discourse are essential.

University Resources

Having this course in an online medium yields many positives. But please remember that we still have resources in Blacksburg at our disposal. Three are worth mentioning here.

IT Support/Canvas

- When you log into Canvas, there is a Help button. It keeps moving around but as of today (08/16/16) it is a question mark at the bottom left of the page. If you are having technical problems with the software, use this. There are solutions to common problems and an email link for troubleshooting.
- General computing questions are answered here: <https://www.computing.vt.edu/>.

Library (<http://www.lib.vt.edu/>)

- The library has many books and articles available electronically. Become familiar with their resources.
- There is also a direct link to Library Help on the course's Scholar page. Look on the left sidebar.

The Writing Center (<http://www.composition.english.vt.edu/writing-center/students.html>)

- The Writing Center is physically located in the library. If you happen to live in Blacksburg you should use the in-person services.
- Distance education students can arrange for a conference via Skype with a writing coach. This is an excellent teaching service resource. Excellent writing is invaluable and feedback is critical to improve this skill. Please note this is a teaching service, not an editing service. In order to set up an appointment, email the assistant director, Jennifer Lawrence (jlwrc@vt.edu). She will forward your request to the writing coach

for distance education.

About the Professor

A little bit about me. I am an environmental and landscape planner with degrees in both landscape architecture (MLA-UPenn) and city and regional planning (PhD-UPenn). I worked for several years in planning for a regional non-profit and became a member of the American Institute of Certified Planners. I taught for over 10 years, the bulk of which was teaching environmental, coastal, and landscape planning at East Carolina University. My research and professional interests focus on how large landscapes will adapt to climate change and other forces (urbanization, agricultural intensification, etc.) I have a particular interest in the Roanoke Valley. We will have plenty of time to get to know each other better this session, but if you have any specific questions now, let me know.

Me visiting my daughter in Fairbanks, Alaska.

Evaluation

Evaluation for this course will be based on engaged and thoughtful participation in each week's activities/discussion (70% of total grade) and project grades (30%). Students will be evaluated each week on their discussion contributions. Grades for discussion will be posted every other week in order to provide feedback to students. Please see the [evaluation rubric for class discussions](#).

A: 94-100%

A-: 90-93%

B+: 87-89%

B: 84-86%

B-: 80-83%

C+: 77-79%

C: 74-76%

C-: 70-73%

F: < 69.9%

Honor Code and Academic Standards

The tenets of the Virginia Tech Graduate Honor Code will be strictly enforced in this course, and all assignments shall be shall subject to the stipulations of the Graduate Honor Code as outlined in the Graduate Catalog at <http://www.ncr.vt.edu>. For more information on the Graduate Honor Code, please refer to the GHS Constitution, located online at <http://ghs.grads.vt.edu/>. Please contact the instructor immediately if you have questions.

When bringing in outside materials to class discussion and/or your projects, please be sure to fully cite your sources using a standard citation format (such as APA). When at all possible, you should go to primary material that is credible and/or scholarly (peer-reviewed journal articles, government documents, NGO white papers, news articles from respected news outlets, etc.). Please steer clear of unreliable web sources such as Wikipedia!

We take plagiarism very seriously, and will take infractions to honor court. If you have any questions about what constitutes plagiarism, please ask! In general, your writing must be your own unless it is in quote marks. Simply changing a word or two from someone else's writing does not mean that you are paraphrasing – that's still plagiarism. Not citing paraphrased work is also plagiarism. In other words, if the material you are discussing is not your own and is not common knowledge, it needs a citation. Again, please ask if you have any questions about this as the semester proceeds.

Accommodations

If you need adaptations or accommodations because of a disability, or if you have

emergency medical information, please contact me as soon as possible, if you have not done so.

After the semester is over is too late to bring relevant information to my attention.

Calendar

Canvas automatically generates the calendar below based on graded activities. I am not that fond of this, nor do I know how to control it, or delete it. Use the Modules tab to see where we are in the coursework. I will play with this Canvas feature some more.

Course Summary:

Date	Details
Fri Aug 26, 2016	Assignment <u>INTRODUCTIONS</u> due by 11:59pm
Tue Aug 30, 2016	Assignment <u>Lesson 1: Landscape Concept: Suggestions and Feedback for Lesson 1</u> due by 11:59pm
	Assignment <u>Lesson 1: Landscape Concepts: Critical analysis of the readings</u> due by 11:59pm
	Assignment <u>Lesson 1: Landscape Concepts: Perceiving landscapes</u> due by 11:59pm
Tue Sep 6, 2016	
Assignment	<u>Lesson 2: Critical Analysis of the Readings</u> due by 11:59pm
Assignment	<u>Lesson 2: Landscape Services on your Personal Case Study</u> due by 11:59pm
Assignment	<u>Lesson 2: Suggestions and Feedback</u> due by 11:59pm
Assignment	<u>Lesson 2: Sustainable Landscapes</u> due by 11:59pm
Tue Sep 13, 2016	
Assignment	<u>Lesson 3: Connecting Sustainability with Landscape</u> due by 11:59pm

Change and Resilience

Assignment	Lesson 3: Keystone Processes	due by 11:59pm
Assignment	Lesson 3: Landscape Regimes	due by 11:59pm
Assignment	Lesson 3: Willamette River Basin	due by 11:59pm
Assignment	Lesson 3: Suggestions and Feedback	due by 11:59pm

Tue Sep 20, 2016

Assignment	Lesson 4: Suggestions and Feedback	due by 11:59pm
Assignment	Lesson 4: Willamette Basin Landscape Detail	due by 11:59pm

Tue Sep 27, 2016

Assignment	Lesson 5: Cultural ecosystem services	due by 11:59pm
Assignment	Lesson 5: Landscape aesthetics	due by 11:59pm
Assignment	Lesson 5: Sense of Place	due by 11:59pm
Assignment	Lesson 5: Suggestions and Feedback	due by 11:59pm

Sun Oct 2, 2016

Assignment	Project 1: A Sand County Almanac essays	due by 11:59pm
Assignment	Project 1: A Sand County Almanac general discussion	due by 11:59pm

Tue Oct 4, 2016

Assignment	Lesson 6: Alternative Future Scenarios	due by 11:59pm
Assignment	Lesson 6: Landscape Scale	due by 11:59pm
Assignment	Lesson 6: Normative Assumptions	due by 11:59pm
Assignment	Lesson 6: Open Discussion	due by 11:59pm
Assignment	Lesson 6: The Reconnection Agenda	due by 11:59pm

Tue Oct 11, 2016

Assignment	Lesson 7: Open Thread	due by 11:59pm
Assignment	Lesson 7: San Diego County: Landscape Mosaics	due by 11:59pm
Assignment	Lesson 7: San Diego County: Vegetation Communities	due by 11:59pm

Tue Oct 18, 2016

Assignment	Lesson 8: Compromise is good or bad?	due by 11:59pm
Assignment	Lesson 8: Endangered Species Protection	due by 11:59pm
Assignment	Lesson 8: Favorite passages from the Readings	due by 11:59pm
Assignment	Lesson 8: Land Use and Conservation	due by 11:59pm
Assignment	Lesson 8: Landscape Change	due by 11:59pm
Assignment	Lesson 8: Open Thread	due by 11:59pm

Tue Oct 25, 2016

Assignment	Lesson 9: Open Thread	due by 11:59pm
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Assignment	Lesson 9: Paraná Delta: Context	due by 11:59pm
Assignment	Lesson 9: Paraná Delta: Ecology	due by 11:59pm
Assignment	Lesson 9: Paraná Delta: History	due by 11:59pm
Assignment	Lesson 9: Paraná Delta: Human Uses	due by 11:59pm
Assignment	Lesson 9: Paraná Delta: Visual	due by 11:59pm

Tue Nov 1, 2016

Assignment	Lesson 10: Open Thread	due by 11:59pm
Assignment	Lesson 10: Paraná Delta: Conservation	due by 11:59pm
Assignment	Lesson 10: Paraná Delta: Landscape (Ecosystem) Services	due by 11:59pm
Assignment	Lesson 10: Paraná Delta: Landscape Change	due by 11:59pm
Assignment	Lesson 10: Paraná Delta: Scenario Writing	due by 11:59pm
Assignment	Lesson 10: Paraná Delta: Sostenible del Delta del Paraná	due by 11:59pm

Tue Nov 8, 2016

Assignment	Lesson 11: Marcellus: Direct Impacts of Fracking	due by 11:59pm
Assignment	Lesson 11: Marcellus: History of the Mid-Appalachians in the Marcellus region	due by 11:59pm
Assignment	Lesson 11: Marcellus: Landscape Attributes (Everyone chip in on this prompt.)	due by 11:59pm
Assignment	Lesson 11: Marcellus: Marcellus Formation	due by 11:59pm
Assignment	Lesson 11: Marcellus: Natural Gas Extraction	due by 11:59pm
Assignment	Lesson 11: Marcellus: Open Thread	due by 11:59pm
Assignment	Lesson 11: Marcellus: Virtual Field Trip	due by 11:59pm

Tue Nov 15, 2016

Assignment	Lesson 12: Marcellus: Cumulative Impacts on Landscapes	due by 11:59pm
Assignment	Lesson 12: Marcellus: Economic Impacts	due by 11:59pm
Assignment	Lesson 12: Marcellus: Environmental Impact Assessment	due by 11:59pm
Assignment	Lesson 12: Marcellus: Indirect Impacts on Landscapes	due by 11:59pm
Assignment	Lesson 12: Marcellus: Mitigation	due by 11:59pm
Assignment	Lesson 12: Marcellus: Open Thread	due by 11:59pm

Mon Nov 28, 2016

Assignment	Lesson 13: Isla de Vieques: Base Closure and NWR Establishment and Cleanup	due by 11:59pm
Assignment	Lesson 13: Isla de Vieques: Open Discussion	due by 11:59pm
Assignment	Lesson 13: Isla de Vieques: Applying Sustainable Tourism in Vieques	due by 11:59pm
Assignment	Lesson 13: Isla de Vieques: Core Principles of Island	due by 11:59pm

[Biography](#)

Assignment [Lesson 13: Isla de Vieques: Ecology of Caribbean and Vieques](#) due by 11:59pm

Assignment [Lesson 13: Isla de Vieques: Landscape History of Vieques](#) due by 11:59pm

Tue Dec 6, 2016

Assignment [Lesson 14: Vieques Futures: Open Thread](#) due by 11:59pm

Mon Dec 12, 2016

Assignment [Project 2: Option 1: Protected Areas and Landscape Sustainability essays](#) due by 11:59pm

Assignment [Project 2: Option 2: Literature and Landscape essays](#) due by 11:59pm

Assignment [Project 2: Landscape Protection open discussion](#) due by 11:59pm

Assignment [Lesson 15: Sustainable Landscapes: Reflective Practitioner \(aka The Take Away\)](#)

Assignment [Lesson 15: Sustainable Landscapes: Suggestions for Dan and A Final Open Thread](#)



Purpose: The Request for Approval of Transfer Credits (RATC) form is used to request approval of transfer credit that was awarded from another college or university. The RATC authorizes the Graduate College to make changes to the student's Academic Advisement Report (AAR), so transfer credits can be directed to meet a previous course requirement. Please refer to the most recent [Graduate Catalog](#), Graduate Academic Regulations chapter, Transfer Credits section for complete policy regulations.

APPROVED 06/04/19

Student Information

Student ID# 114105113

First Name Paige

Last Name Ellestad

Email Address paigeellestad@u.boisestate.edu

Graduate Program* Ecology, Evolution, & Behavior

Advisor Sven Buerki

Catalog Year* 2018/2019

Anticipated Completion Term* Spring 2022 (ex: Spring 2020)

Courses to be Transferred

Please complete the table below with your transfer course information. An official transcript must be on file with the Graduate College for the institution(s) listed. You can enter up to 10 transfer courses on this form.

In the "How Transfer Credits Should be Applied" box, please indicate the Boise State University equivalent course name for direct replacement, or designate the requirement type (such as elective, emphasis area, etc) for each transfer course listed. If you need help determining the requirement type, please reference the degree requirements box from your selected [Graduate Catalog](#).

Delete	University	Course Prefix	Course Number	Course Title	How Credits Should be Applied	Credit	Grade	Semester	Year
Delete	Virginia Tech	NR	5724	Conservation Ecology	elective	3	A-	Fall	2016
Delete	Virginia Tech	NR	5884	International Environmental La	elective	3	A-	Fall	2016
Delete	Virginia Tech	NR	5884	Landscape Systems and Strate	elective	3	A	Fall	2016
Delete	Virginia Tech	NR	5884	Climate Change Science	elective	3	A-	Spring	2017

(Be careful not to create a blank entry, otherwise the form will not be able to submit)

Upload Supporting Documents

Please upload a syllabus for each course listed in the table by clicking on the **Add Supporting Documents** button at the bottom of the form.

If a syllabus is not available, please provide information on how your grade was assigned.

Decision

	Action	Date
Advisor	Approved	05/20/2019
Program Coordinator	Approved	06/03/2019
Graduate College		