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Course Information

- **Course times and location:** The course will run from Tuesday 12th January 2021 to Tuesday 20th April 2021. Meeting times are Tuesdays and Thursdays between 9:35am – 10:25 am in Zoom
  - **Zoom Link:** https://osu.zoom.us/j/94383680643?pwd=UVpUL0NUbzRpd0I5TytRTktNdGVrZz09
- **Credit hours:** 2
- **Mode of delivery:** Distance Learning

Instructors

<table>
<thead>
<tr>
<th>Course leader</th>
<th>Course lecturer</th>
<th>Course TA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr. G. Matt Davies</td>
<td>Dr. Scott Demyan</td>
<td>Jeremy Block</td>
</tr>
<tr>
<td>412B Kottman Hall</td>
<td><a href="mailto:demyan.4@osu.edu">demyan.4@osu.edu</a></td>
<td>406A Kottman Hall</td>
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<td>Tel: 614 292 3567</td>
<td></td>
<td>E-mail: <a href="mailto:block.165@osu.edu">block.165@osu.edu</a></td>
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<td>E-mail: <a href="mailto:davies.411@osu.edu">davies.411@osu.edu</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twitter: @fireregimes</td>
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<table>
<thead>
<tr>
<th>Office hours</th>
<th>Office hours</th>
<th>Office hours</th>
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<tbody>
<tr>
<td>I will be available via Zoom at the following times</td>
<td>By appointment</td>
<td>Online office hours via Zoom at the following times:</td>
</tr>
<tr>
<td>Tue: 11:00 am – 12:00 pm</td>
<td>Thu: 11:00 am – 12:00 pm</td>
<td>Wed: 11:00 am - 12:00 pm</td>
</tr>
<tr>
<td>Or email to make an appointment for a phone or video meeting</td>
<td></td>
<td>Fri: 11:00 am - 12:00 pm</td>
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</table>
Course Prerequisites

ENR2100; or Biology 1114 (or equivalent); or permission of instructor

Course Description

The aims of the course are to:

- Evaluate the philosophical and ecological concepts which underpin decision-making in ecosystem restoration
- Explore the concept of “Adaptive Management” as it pertains to ecosystem restoration including the development of project objectives, choice of interventions, monitoring to detect change and reevaluation of future management
- Describe the practical application of key tools and interventions, and their ecological outcomes, in case-study ecosystems
- Investigate the logistical, practical, financial and ecological constraints on restoration projects

Learning Outcomes

By the end of this course students will be able to:

- Describe the planning tools that ecologists use to tackle restoration problems
- Identify the ecological principles that guide decision making during restoration
- Choose appropriate restoration interventions for specific ecological problems
- Make informed trade-offs between the economic and ecological costs and benefits of different restoration interventions

Course Schedule

Refer to the CarmenCanvas course for up-to-date due dates.
<table>
<thead>
<tr>
<th>Week</th>
<th>Assignments</th>
<th>Topics (Tue/Thur)</th>
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<tbody>
<tr>
<td>11th Jan</td>
<td>Quiz</td>
<td>No class - students should attend EPN Webinar* Course Introduction</td>
</tr>
<tr>
<td>18th Jan</td>
<td>Quiz</td>
<td>Myths of Restoration Naturalness</td>
</tr>
<tr>
<td>25th Jan</td>
<td>Quiz</td>
<td>Reference States The Land Ethic</td>
</tr>
<tr>
<td>1st Feb</td>
<td>Mid-term 1</td>
<td>Adaptive Management Logic Model</td>
</tr>
<tr>
<td>8th Feb</td>
<td>Quiz</td>
<td>Restoring soil health Invasive species</td>
</tr>
<tr>
<td>15th Feb</td>
<td>Quiz</td>
<td>Remediating soil compaction Herbicide</td>
</tr>
<tr>
<td>22nd Feb</td>
<td>Assessment break</td>
<td>INSTRUCTIONAL BREAK (no class Tuesday) Site hydrology</td>
</tr>
<tr>
<td>1st Mar</td>
<td>Storyboard Quiz</td>
<td>Soil organic matter Forest structure</td>
</tr>
<tr>
<td>8th Mar</td>
<td>Quiz</td>
<td>Organic soil amendments Chainsaw</td>
</tr>
<tr>
<td>15th Mar</td>
<td>Mid-term 2</td>
<td>Managing soil erosion Restoration monitoring</td>
</tr>
<tr>
<td>22nd Mar</td>
<td>Quiz</td>
<td>Community composition Seed</td>
</tr>
<tr>
<td>29th Mar</td>
<td>Assessment break</td>
<td>Rewilding INSTRUCTIONAL BREAK (no class Thursday)</td>
</tr>
<tr>
<td>Date</td>
<td>Activity</td>
<td>Topic</td>
</tr>
<tr>
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<tr>
<td>5th Apr</td>
<td>Quiz</td>
<td>Functional groups</td>
</tr>
<tr>
<td>12th Apr</td>
<td>Quiz</td>
<td>Fire regimes</td>
</tr>
<tr>
<td>19th Apr</td>
<td>Mid-term 3</td>
<td>Biotic Interactions</td>
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</table>

*Weeks indicated in green will be guest lectures delivered by Prof. Scott Demyan*

*Students are expected to register for and attend the January 12th Environmental Professional Network Webinar. This runs from 10:00 am - 11:30 am, approximately the same time as the normal class*

### Course Reading

I don’t teach from a textbook but recommend you study the relevant background reading in the following texts:


*Several copies are available in the Library*


### Recommended additional reading

Additional papers, reports and multi-media resources relevant to the restoration tools described on the course will be provided on Carmen. You are strongly recommended to read them and to consider the results and concepts they discuss. These resources should be taken as a starting point for further reading not as an exhaustive list.

### How This Course Works

**Mode of delivery:** This course is 100% online. There are synchronous (real time) sessions in Zoom each week on Tuesdays and Thursday from 9:35-10:25 a.m. The rest of your work is found in Carmen and can be completed around your own schedule during the week.
Pace of online activities: This course is divided into weekly modules that are released one week ahead of time. Students are expected to keep pace with relevant deadlines but may schedule their efforts freely within that time frame.

Credit hours and work expectations: This is a 2 credit-hour course. According to Ohio State bylaws on instruction (go.osu.edu/credithours), students should expect around 2 hours per week of time spent on direct instruction (instructor content and Carmen activities, for example) in addition to 4 hours of homework (reading and assignment preparation, for example) to receive a grade of [C] average.

Attendance and participation requirements: Research shows regular participation is one of the highest predictors of success. With that in mind, I have the following expectations for everyone’s participation:

- **Participating in online activities for attendance:** You are expected to log in to the course in Carmen every week. During most weeks you will probably log in many times. If you have a situation that might cause you to miss an entire week of class, discuss it with me as soon as possible.
- **Zoom meetings and office hours:** The course will be delivered online via synchronous video lectures. All lectures will be recorded and posted on Carmen following the class but we strongly encourage attendance in order to participate in small group discussions, short quizzes and polls that will help ensure you have grasped key concepts. Office hours, are optional.

Required Materials and/or Technologies

- All required reading materials will be provided on Carmen or will be available via to OSU library

Required Equipment

- **Computer:** current Mac (MacOS) or PC (Windows 10) with high-speed internet connection.
- **Webcam:** built-in or external webcam, fully installed and tested
- **Microphone:** built-in laptop or tablet mic or external microphone
- **Other:** a mobile device (smartphone or tablet) to use for BuckeyePass authentication

If you do not have access to the technology you need to succeed in this class, review options for technology and internet access (go.osu.edu/student-tech-access).

Required Software

**Microsoft Office 365:** All Ohio State students are now eligible for free Microsoft Office 365. Visit the installing Office 365 (go.osu.edu/office365help) help article for full instructions.

**CarmenCanvas Access**
You will need to use BuckeyePass (buckeyepass.osu.edu) multi-factor authentication to access your courses in Carmen. To ensure that you are able to connect to Carmen at all times, it is recommended that you do each of the following:

- Register multiple devices in case something happens to your primary device. Visit the BuckeyePass - Adding a Device (go.osu.edu/add-device) help article for step-by-step instructions.
- Request passcodes to keep as a backup authentication option. When you see the Duo login screen on your computer, click Enter a Passcode and then click the Text me new codes button that appears. This will text you ten passcodes, good for 365 days, that can each be used once.
- Install the Duo Mobile application (go.osu.edu/install-duo) on all of your registered devices for the ability to generate one-time codes in the event that you lose cell, data, or Wi-Fi service.

If none of these options will meet the needs of your situation, you can contact the IT Service Desk at 614-688-4357 (HELP) and IT support staff will work out a solution with you.

Technology Skills Needed for This Course

- Basic computer and web-browsing skills
- Navigating CarmenCanvas (go.osu.edu/canvasstudent)
- CarmenZoom virtual meetings (go.osu.edu/zoom-meetings)
- Recording a slide presentation with audio narration and recording, editing and uploading video (go.osu.edu/video-assignment-guide)

Technology Support

For help with your password, university email, CarmenCanvas, or any other technology issues, questions or requests, contact the IT Service Desk, which offers 24-hour support, seven days a week.

- Self Service and Chat: osu.edu/it
- Phone: 614-688-4357 (HELP)
- Email: servicedesk@osu.edu

Assignments and Grading

How Your Grade is Calculated
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<thead>
<tr>
<th>Assignment Category</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekly Quiz</td>
<td>15</td>
</tr>
<tr>
<td>Mid-term Exams (3)</td>
<td>30</td>
</tr>
<tr>
<td>Video report</td>
<td>50</td>
</tr>
<tr>
<td>Participation</td>
<td>5</td>
</tr>
</tbody>
</table>

**Descriptions of Major Course Assignments**

Full instruction for all assignments will be posted in Carmen

**Weekly Quiz 15%**: A short quiz will be posted following each week's lectures. These are designed to help you check you’ve grasped key concepts and will help you prepare for the mid-term exams. Your lowest three scores will be dropped but a 2% penalty will be applied to your final grade for each incomplete quiz.

**Mid-term Exams 30%**: In weeks 4, 10 and 15 exams on the preceding course thematic sections will be posted on Carmen at three points during the semester. You will have 24 hours to complete and submit your answers. The exams will include a mixture of multiple-choice and short-answer questions.

**Video Report 50%**: This assignment will be comprised of two elements – i) a storyboard worth 10 points and ii) a video report worth 40 points

- Students will work in groups to identify a local ecosystem restoration challenge and create a ten-minute video report describing the issue and what restoration principles and tools they would use to solve it. Students may wish to make use of resources available from the Ohio Digital Union (https://odee.osu.edu/digital-union) to help with this assessment.

- Groups must submit a storyboard halfway through the semester. Using a series of pictures, screen shots from footage or slides, and a maximum of 500 words you should provide a sense of the: i) Structure of your video - a list of the topics/issues you'll discuss; ii) Media, shots or scenes you intend to use in your film; iii) Location, character and restoration challenges at your site.
• Videos will be shared in a class with an invited audience in the final week. Up to 5% extra credit will be awarded to videos selected for showing.
• Peer evaluation will be used to ensure all team members contributed equally

**Participation** 5%: Participation will be evaluated through a register of class attendance and tracking of student engagement with on-line course materials.

**Extra credit** up to a maximum of 5% will be awarded to students for:

1. Exemplary in person (i.e. live) attendance records (> 90%)
2. Evidence of participating in relevant additional activities outside the classroom (e.g. tree planting or invasive removal volunteer events). Normally this can take the form on e-mailing a selfie at, and short-description of, the event concerned. Please be attentive to following appropriate health and safety guidelines and maintain social distancing.

**Academic integrity and collaboration:** The University's degrees and other academic awards are given in recognition of a student's personal achievement. All work submitted by students for assessment is accepted on the understanding that it is the student's own effort.

Plagiarism is defined as the submission or presentation of work, in any form, which is not one's own, without acknowledgement of the sources. Plagiarism includes inappropriate collaboration with others. Special cases of plagiarism can arise from a student using his or her own previous work (termed auto-plagiarism or self-plagiarism). Auto-plagiarism includes using work that has already been submitted for assessment at this University or for any other academic award.

The incorporation of material without formal and proper acknowledgement (even with no deliberate intent to cheat) can constitute plagiarism. Work may be considered to be plagiarised if it consists of:

- a direct quotation;
- a close paraphrase;
- an unacknowledged summary of a source;
- direct copying or transcription.

With regard to essays, reports and dissertations, the rule is: if information or ideas are obtained from any source, that source must be acknowledged according to the appropriate convention in that discipline; and any direct quotation must be placed in quotation marks and the source cited immediately. Any failure to acknowledge adequately or to cite properly other sources in submitted work is plagiarism.

Plagiarism is considered to be an act of fraudulence and can result in a charge of academic misconduct. More information on avoiding plagiarism can be found here: [http://library.osu.edu/projects-initiatives/copyright-resources-center/using-materials/plagiarism](http://library.osu.edu/projects-initiatives/copyright-resources-center/using-materials/plagiarism)

**Late Assignments**
Please refer to Carmen for due dates. Due dates are set to help you stay on pace and to allow timely feedback that will help you complete subsequent assignments. Students may be granted an extension to the deadline if a good reason is given. Extensions will not be given in retrospect. A penalty of 5% per 24 hours (or part thereof) late will be applied to all submissions up to a maximum of 5 days after which a grade of zero will be returned.

**Instructor Feedback and Response Time**

I am providing the following list to give you an idea of my intended availability throughout the course. Remember that you can call 614-688-4357 (HELP) at any time if you have a technical problem.

- **Preferred contact method:** If you have a question, please contact me first through my Ohio State email address. I will reply to emails within **48 hours on days when class is in session at the university**.
- **Class announcements:** I will send all important class-wide messages through the Announcements tool in CarmenCanvas. Please check your notification preferences (go.osu.edu/canvas-notifications) to ensure you receive these messages.
- **Discussion board:** I will check and reply to messages in the discussion boards once a week.
- **Grading and feedback:** For assignments submitted before the due date, I will try to provide feedback and grades within **fourteen days**. Assignments submitted after the due date may have reduced feedback and grades may take longer to be posted.

**Grading Scale**

A (100-93%); A (92-90%); B+ (89-87%); B (86-83%); B-(82-80%); C+ (79-77%); C (76-73%); C-(72-70%); D+ (69-67%); D (66-60%); E (below 60%).

**Discussion and Communication Guidelines**

[Example: The following are my expectations for how we should communicate as a class. Above all, please remember to be respectful and thoughtful.]

- **Writing style:** While there is no need to participate in class discussions as if you were writing a research paper, you should remember to write using good grammar, spelling, and punctuation. A more conversational tone is fine for non-academic topics.
- **Tone and civility:** Let's maintain a supportive learning community where everyone feels safe and where people can disagree amicably. Remember that sarcasm doesn't always come across online. I will provide specific guidance for discussions on controversial or personal topics.
- **Citing your sources:** When we have academic discussions, please cite your sources to back up what you say. For the textbook or other course materials, list at least the title and page numbers. For online sources, include a link.
- **Backing up your work:** Consider composing your academic posts in a word processor, where you can save your work, and then copying into the Carmen discussion.
• **Synchronous sessions**: During our Zoom sessions I ask you to use your real name and a clear photo of your face in your Carmen profile. During our full-group lecture time, you may turn your camera off if you choose. When in breakout rooms or other small-group discussions, having cameras and mics must be turned on. You are always welcome to use the free, Ohio State themed virtual backgrounds (www.osu.edu/downloads/zoom-backgrounds.html). Remember that Zoom and the Zoom chat are our classroom space where respectful interactions are expected.]

**Creating an Environment Free from Harassment, Discrimination, and Sexual Misconduct**

The Ohio State University is committed to building and maintaining a community to reflect diversity and to improve opportunities for all. All Buckeyes have the right to be free from harassment, discrimination, and sexual misconduct. Ohio State does not discriminate on the basis of age, ancestry, color, disability, ethnicity, gender, gender identity or expression, genetic information, HIV/AIDS status, military status, national origin, pregnancy (childbirth, false pregnancy, termination of pregnancy, or recovery therefrom), race, religion, sex, sexual orientation, or protected veteran status, or any other bases under the law, in its activities, academic programs, admission, and employment. Members of the university community also have the right to be free from all forms of sexual misconduct: sexual harassment, sexual assault, relationship violence, stalking, and sexual exploitation.

**To report harassment, discrimination, sexual misconduct, or retaliation** and/or seek confidential and non-confidential resources and supportive measures, contact:

1. Online reporting form at equity.osu.edu,
2. Call 614-247-5838 or TTY 614-688-8605,
3. Or Email equity@osu.edu

The university is committed to stopping sexual misconduct, preventing its recurrence, eliminating any hostile environment, and remedying its discriminatory effects. All university employees have reporting responsibilities to the Office of Institutional Equity to ensure the university can take appropriate action:

- All university employees, except those exempted by legal privilege of confidentiality or expressly identified as a confidential reporter, have an obligation to report incidents of sexual assault immediately.
- The following employees have an obligation to report all other forms of sexual misconduct as soon as practicable but at most within five workdays of becoming aware of such information: 1. Any human resource professional (HRP); 2. Anyone who supervises faculty, staff, students, or volunteers; 3. Chair/director; and 4. Faculty member.

This course adheres to The Principles of Community adopted by the College of Food, Agricultural, and Environmental Sciences. These principles are located on the Carmen site for this course; and can also be found at https://go.osu.edu/principlesofcommunity. For additional
information on Diversity, Equity, and Inclusion in CFAES, contact the CFAES Office for Diversity, Equity, and Inclusion (https://equityandinclusion.cfaes.ohio-state.edu). If you have been a victim of or a witness to a bias incident, you can report it online and anonymously (if you choose) at https://studentlife.osu.edu/bias/report-a-bias-incident.aspx.

Your Mental Health

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. No matter where you are engaged in distance learning, The Ohio State University’s Student Life Counseling and Consultation Service (CCS) is here to support you. If you find yourself feeling isolated, anxious or overwhelmed, on-demand mental health resources (go.osu.edu/ccsondemand) are available. You can reach an on-call counselor when CCS is closed at 614-292-5766. 24-hour emergency help is available through the National Suicide Prevention Lifeline website (suicidepreventionlifeline.org) or by calling 1-800-273-8255(TALK). The Ohio State Wellness app (go.osu.edu/wellnessapp) is also a great resource.

Accessibility Accommodations for Students with Disabilities

Requesting Accommodations

The university strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability including mental health, chronic or temporary medical conditions, please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services (SLDS). After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. In light of the current pandemic, students seeking to request COVID-related accommodations may do so through the university's request process, managed by Student Life Disability Services.

Disability Services Contact Information

- Phone: 614-292-3307
- Website: osu.edu
- Email: slds@osu.edu
- In person: Baker Hall 098, 113 W. 12th Avenue

Accessibility of Course Technology
This online course requires use of CarmenCanvas (Ohio State's learning management system) and other online communication and multimedia tools. If you need additional services to use these technologies, please request accommodations as early as possible.

- CarmenCanvas accessibility (osu.edu/canvas-accessibility)
- Streaming audio and video
- CarmenZoom accessibility (go.osu.edu/zoom-accessibility)

**Copyright for Instructional Materials**

The materials used in connection with this course may be subject to copyright protection and are only for the use of students officially enrolled in the course for the educational purposes associated with the course. Copyright law must be considered before copying, retaining, or disseminating materials outside of the course.