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| <br><b>FLORIDA ATLANTIC UNIVERSITY</b>   | <b>NEW COURSE PROPOSAL</b><br><b>Graduate Programs</b>   |   | UGPC Approval _____<br>UFS Approval _____<br>SCNS Submittal _____<br>Confirmed _____<br>Banner Posted _____<br>Catalog _____ |
|   | <b>Department</b> Geosciences<br><br><b>College</b> Science<br><i>(To obtain a course number, contact erudolph@fau.edu)</i>                |   |  |
| <b>Prefix</b> EVR<br><br><b>Number</b> 6115   | <i>(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)</i><br><b>Lab Code</b>   | <b>Type of Course</b><br>Select one<br>Lecture  | <b>Course Title</b><br><br>Paleoenvironmental Reconstruction   |
| <b>Credits</b> <i>(Review Provost Memorandum)</i><br><br>3  | <b>Grading</b> <i>(Select One Option)</i><br><br><b>Regular</b> <input checked="" type="radio"/><br><b>Sat/UnSat</b> <input type="radio"/> | <b>Course Description</b> <i>(Syllabus must be attached; see Guidelines)</i><br><br>This seminar broadly examines paleoenvironmental research with a focus on environmental change across the Holocene. Emphasis on the application of environmental/climate proxies and interpreting past human influence as related to changes in environments, fire histories, and climate stress. |  |
| <b>Effective Date</b> <i>(TERM &amp; YEAR)</i><br><br>Fall 2018   | <b>Prerequisites</b><br><br>None   |   | <b>Corequisites</b><br><br>None  |
|   |  | <b>Registration Controls</b> <i>(Major, College, Level)</i>   |  |
| <i>Prerequisites, Corequisites and Registration Controls are enforced for all sections of course</i>  |  |   |  |
| <b>Minimum qualifications needed to teach course:</b><br>Member of the FAU graduate faculty and has a terminal degree in the subject area (or a closely related field.) |  | <b>List textbook information in syllabus or here</b><br><br>NA  |  |
| <b>Faculty Contact/Email/Phone</b><br>Erik Johanson / ejohanson@fau.edu / 561-297-4153  |  | <b>List/Attach comments from departments affected by new course</b><br><br>NA   |  |

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| <b>Approved by</b><br>Department Chair _____<br>College Curriculum Chair _____<br>College Dean _____<br>UGPC Chair _____<br>UGC Chair _____<br>Graduate College Dean _____<br>UFS President _____<br>Provost _____ | <b>Date</b><br>2/16/2018<br>3-8-18<br>3-8-18<br>_____<br>_____<br>_____<br>_____ |
|--|--|

Email this form and syllabus to [UGPC@fau.edu](mailto:UGPC@fau.edu) one week before the UGPC meeting.

GRADUATE COLLEGE

MAR 08 2018

Received

# Paleoenvironmental Reconstruction

## EVR 6115

Tuesday 4:00 – 6:50 PM  
Room: SE 413

### Instructor Contact Information

Erik N. Johanson, PhD  
ejohanson@fau.edu

Office: SE-43 Room 474  
Office Hours: Tuesday 1:30 – 3:30 PM

### Course Objective

This seminar broadly examines paleoenvironmental research with a focus on environmental change across the Holocene. We will also interpret past human influence as related to changes in environments, fire histories, and climate stress. Class discussions will focus on familiarizing students with a variety of environmental proxies and their application in published research. We will introduce concepts associated with reconstructing past climates and developing environmental histories. Students will have the opportunity to analyze proxies in the Environmental Change Laboratory and learn the basics of lake/wetland sediment coring in the field.

Semester schedule, syllabus, readings, and assignments are posted on Canvas ([canvas.fau.edu](https://canvas.fau.edu)).

There is no text for this class. Readings to be uploaded throughout the semester. Check Canvas often!



### Format

The course will be taught as a seminar. Classes will typically consist of student-led discussion of the assigned readings. Additionally, we will dedicate a week to both in-lab experience and in-field experience. The semester will conclude with in-class student presentations of their term project.

### Readings

This is a reading-focused seminar. The Professor will assign at least two readings per class. Additionally, each of the two discussion leaders must select one additional reading per class. Expect 4–6 readings per week posted at least a week in advance on Canvas.

### Prerequisites & Degree Requirements

This course assumes no prior background. Graduate students from any related discipline are encouraged to register. Advanced undergraduate students may register with permission from the Professor.

GRADUATE COLLEGE

MAR 08 2018

Received



## Grade Breakdown

**A: 93-100**

**A-: 90-92**

**B+: 87-89**

**B: 83-86**

**B-: 80-82**

**C+: 77-79**

**C: 73-76**

**C-: 70-72**

**D: 60-69**

*No extra credit is accepted in this course.*

## Course Evaluation

|                                      |            |
|--------------------------------------|------------|
| <b>Seminar Leadership</b>            | <b>40%</b> |
| <b>Term Paper Presentation</b>       | <b>25%</b> |
| <b>Term Paper</b>                    | <b>25%</b> |
| <b>Participation &amp; Abstracts</b> | <b>10%</b> |

### **Seminar Leading (40%)**

Seminar leadership will be structured as 2-3 students leading discussion for that week's article and topics. Each student will be responsible for leading at least one seminar during the semester. All students are expected to read closely all readings for every class meeting, but the student(s) charged with leading a given week's seminar are expected to do whatever additional work necessary to present that week's ideas in their proper context.

Seminars should, in general, follow this format: quickly introduce the main author(s) with a short biography, then review the content and concepts of the reading through discussion, followed by a critique of the research or subject. Discussion leaders should work on developing questions to stimulate conversation and they are expected to steer the discussion appropriately.

Seminar leaders will each select one additional reading (peer-reviewed article) that compliments the assigned readings and is related to the week's topic. While I expect discussion leaders to equally cover the leadership of the week's readings, you should be prepared to take the lead on your selected article. Discussion leaders must submit their selected article to the Professor 7 days in advance of their seminar leading class for approval.

### **Project (Paper 25% and Presentation 25%)**

Your course project will be an oral PowerPoint-style presentation and 15-page term paper. Students will be assigned a region to research as related to its environmental and climate histories. You should provide background for your region, a synthesis of recent paleoenvironmental research including details on proxies used, critiques of research in that region, a focus on environmental change issues, and discussion on how people have altered their environment and have been affected by change.

Presentations should be approximately 10 minutes with penalties assessed for those going well over or under the time. You are responsible for getting the presentation to me *before* class and for bringing a backup with you. I highly recommend that you rehearse your presentation to ensure it fits within your given time and isn't too short or too long.

Papers should include a compressive literature review of paleoenvironmental research in your assigned region. Be sure to focus on peer-reviewed articles. Papers should be approximately 15

pages without counting the required cover page and references. Times New Roman size 11-font, double spaced with 1 inch margins. Proper in-text citations and a bibliography are expected. You may use the citation style of your choice, but a guide will also be posted. Additionally, a grading rubric will be provided on Canvas. The paper is due electronically during the Final Exam period time (no in-class meeting that day).

## **Participation & Abstracts (10%)**

This grade is based on (1) *attendance*, (2) *engagement*, and (3) *weekly abstracts*. Outstanding attendance and engagement are expected. Given that this class meets only once per week, significant learning is only possible if you attend regularly and engage actively with the professor and class. Consistent attendance and active engagement also indicate that you care about the course, which is a factor that matters for evaluating borderline grades at the end of the semester. Engagement further implies that you read all the required readings and supported the other students leading class discussion. Be prepared to say something each week!

**Weekly abstracts** are one paragraph reviews of each of the week's readings. These abstracts relate the student's understanding of the main points of the readings, and any associated questions or criticisms that the student may have. Completing your abstracts will improve your in-class performance. Bring a printout with you to class and be prepared to turn it in at the end. A good general outline for the abstracts is as follows:

1. What is the thesis of the individual reading?
2. How does the author(s) argue the thesis and what notable methods are used?
3. What are your positive reactions to the individual reading (if any)?
4. What are your negative reactions to the individual reading (if any)?

## **My Goal as a Teacher**

My goal is to make this course as enjoyable and beneficial to you as possible. You will leave this course with useful knowledge that I hope will provide you with a new outlook on the world around you. I am here to assist and support you through the learning process. When you are away from campus, do not hesitate to e-mail any questions you may have, but allow for my response within 24 hours (sometimes longer). If you have any questions about anything discussed in class, please ask me during or after class, or come see me in my office.

## **Disability Policy Statement**

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability affecting execution of coursework must register with the Office of Student Accessibility Services (SAS) located in Boca in the SU, room 133 (561-297-3880); in Davie in MD I (954-236-1222); in Jupiter in SR 117 (561-799-8585); or Treasure Coast in CO 128 (772-873-3305) and follow all OSD procedures. For more information, please visit the SAS website at [www.fau.edu/sas/](http://www.fau.edu/sas/).

## **Academic Integrity (Honor Code Policy Statement)**

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high-quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. Students are responsible for informing themselves about the Honor Code standards before performing any academic work. The link to more



detailed information about academic honesty can be found at:  
[http://www.fau.edu/ctl/4.001\\_Code\\_of\\_Academic\\_Integrity.pdf](http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf)

Scholastic dishonesty includes, among other things: plagiarism (which includes copying and pasting written material from the internet), copying other's work during a test, and using notes during a test. The instructor reserves the right to use the Turn-it-in service to check all written work for plagiarism. Any test or written assignment for which you are caught cheating will be marked as a zero grade, and the incident will be reported in accordance with Honor Code regulations.

### **Classroom Etiquette**

University policy on the use of electronic devices states: "In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions." The only exception will be determined and announced by the instructor for special purposes, as indicated.

### **Civility Statement**

Civility is genuine respect and regard for others: politeness, consideration, tact, good manners, graciousness, cordiality, affability, amiability and courteousness. Civility enhances academic freedom and integrity, and is a prerequisite to the free exchange of ideas and knowledge in the learning community. Our community consists of students, faculty, staff, alumni, and campus visitors. Community members affect each other's well-being and have a shared interest in creating and sustaining an environment where all community members and their points of view are valued and respected.

### **Attendance Policy Statement**

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

| <b>Student's Responsibility</b>   | <b>Instructor's Responsibility</b>   |
|---|--|
| <ul style="list-style-type: none"><li>• Be prepared for all classes</li></ul>                             | <ul style="list-style-type: none"><li>• Be prepared for all class</li></ul>                            |
| <ul style="list-style-type: none"><li>• Be respectful of others</li></ul>                                 | <ul style="list-style-type: none"><li>• Be respectful of the students</li></ul>                        |
| <ul style="list-style-type: none"><li>• Actively contribute to the learning activities in class</li></ul> | <ul style="list-style-type: none"><li>• Create and facilitate meaningful learning activities</li></ul> |
| <ul style="list-style-type: none"><li>• Abide by the Honor Code</li></ul>                                 | <ul style="list-style-type: none"><li>• Evaluate all fairly and equally</li></ul>                      |

THE INSTRUCTOR RESERVES THE RIGHT TO REVISE, ALTER AND/OR AMEND THIS SYLLABUS, AS NECESSARY. STUDENTS WILL BE NOTIFIED IN CLASS, CANVAS, AND/OR BY EMAIL OF ANY SUCH REVISIONS, ALTERATIONS AND/OR AMENDMENTS.

## EVR 6115 – Paleoenvironmental Reconstruction Seminar – Spring 2018

| Date     |              | Content/Topic   | Discussion Leaders   |
|----------|--------------|---|----------------------|
| 1        | 09-Jan       | Class Introduction  | Johanson             |
| 2        | 16-Jan       | Introduction to Paleoenvironmental Research & Environmental Proxies / Environmental Change Lab Tour | Johanson             |
| 3        | 23-Jan       | Lake and Wetland Sediments I ( <i>organic</i> )   | 1. _____<br>2. _____ |
| 4        | 30-Jan       | Lake and Wetland Sediments II ( <i>inorganic</i> )  | 1. _____<br>2. _____ |
| 5        | 06-Feb       | Stable Isotopes and Biomarkers  | 1. _____<br>2. _____ |
| 6        | 13-Feb       | Dendrochronology and Hazards  | 1. _____<br>2. _____ |
| 7        | 20-Feb       | Dendroclimatology   | 1. _____<br>2. _____ |
| 8        | 27-Feb       | Glaciers and Ice Sheets   | 1. _____<br>2. _____ |
| 9        | 06-Mar       | <i>Spring Break!</i>  |                      |
| 10       | 13-Mar       | Ocean Sediments   | 1. _____<br>2. _____ |
| 11       | 20-Mar       | Coral and Speleothems   | 1. _____<br>2. _____ |
| 12       | 27-Mar       | Paleoenvironmental Research and Society   | 1. _____<br>2. _____ |
| 13       | 03-Apr       | Field Coring / Lab Day  | Johanson             |
| 14       | 10-Apr       | <i>AAG Conference – No Class</i>  |                      |
| 15       | 17-Apr       | Presentations I   |                      |
| 16       | 24-Apr       | Presentations II  |                      |
| <b>F</b> | <b>1-May</b> | <b>Final Exam Period<br/>Papers Due / No In-Class Meeting</b>                                       | <b>4:00-6:30pm</b>   |

# Paleoenvironmental Reconstruction

## EVR 6115

Tuesday 4:00 – 6:50 PM

Room: SE 413

### Instructor Contact Information

Erik N. Johanson, PhD

[ejohanson@fau.edu](mailto:ejohanson@fau.edu)

Office: SE-43 Room 474

Office Hours: Tuesday 1:30 – 3:30 PM

### Course Objective

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### Readings

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detailed information about academic honesty can be found at:  
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| <b>Student's Responsibility</b>   | <b>Instructor's Responsibility</b>   |
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## EVR 6115 – Paleoenvironmental Reconstruction Seminar – Spring 2018

|           | <b>Date</b> | <b>Content/Topic</b>  | <b>Discussion Leaders</b> |
|-----------|-------------|---|---------------------------|
| <b>1</b>  | 09-Jan      | Class Introduction  | Johanson                  |
| <b>2</b>  | 16-Jan      | Introduction to Paleoenvironmental Research & Environmental Proxies / Environmental Change Lab Tour | Johanson                  |
| <b>3</b>  | 23-Jan      | Lake and Wetland Sediments I ( <i>organic</i> )   | 1. _____<br>2. _____      |
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| <b>5</b>  | 06-Feb      | Stable Isotopes and Biomarkers  | 1. _____<br>2. _____      |
| <b>6</b>  | 13-Feb      | Dendrochronology and Hazards  | 1. _____<br>2. _____      |
| <b>7</b>  | 20-Feb      | Dendroclimatology   | 1. _____<br>2. _____      |
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| <b>9</b>  | 06-Mar      | <i>Spring Break!</i>  |                           |
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| <b>16</b> | 24-Apr      | Presentations II  |                           |
| <b>F</b>  | 1-May       | <b>Final Exam Period<br/>Papers Due / No In-Class Meeting</b>                                       | <b>4:00-6:30pm</b>        |