

Syllabus for FNR 31 Introduction to Geospatial Concepts

Course Information

Semester & Year: Spring 2021

Course ID & Section #: FNR 31: V0816

Instructor's name: Valerie Elder

Lecture: Asynchronous: Canvas Modules Lab: Asynchronous: Canvas Modules

Course units: 3

Instructor Contact Information

Zoom "Walks in the Woods" Office Hours:

Office hours: Monday 1:30-2:30

Link: https://cccconfer.zoom.us/j/94724339797?pwd=OUpPRXImNG54aDBCZzJ5aEViR25Ldz09

Password: 476618

Email address: Valerie-elder@redwoods.edu, or message in CANVAS.

GIS Live Lab: lab help and live demos (if needed)

Wednesday's 7-8 PM – if no one joins at 7 the Zoom meeting may be closed by 7:15

Join from PC, Mac, Linux, iOS or Android:

https://cccconfer.zoom.us/j/91483634427?pwd=a1VCM2ZaMWZCMkUyTzF5bGZmanIZQT09

Password: GISROCKS

This semester FNR31 is fully online, and will be mostly asynchronous. An asynchronous course means that there will be no set times that you need to be online, but you will still have due dates, and should make a work plan that suits your schedule in order to meet course deadlines. There are elements of this course that will be synchronous, but optional. For example, each week there will be an 'open lab' scheduled through zoom where the instructor will be conducting a lab demo if necessary and be available to help with lab assignments.

Catalog Description

An introduction to geospatial concepts. Students will learn the theory and application of GPS technology, cartography, GIS software, and remote sensing techniques.

Course Student Learning Outcomes

1. Discuss acquisition and utilization of geospatial data from various sources and integration into geographic information systems.

- 2. Discuss common geospatial characteristics of maps including projection systems, landmarks and features, scales, and frame of reference.
- 3. Analyze strengths and weaknesses of global positioning system (GPS) data and discuss basic operational parameters of the various systems in current use.
- 4. Lab Specific Outcome: Use software to develop maps from data acquired from various sources.

Additional Course Information

Course Format: FNR31 is offered as a 16-week course though College of the Redwoods (CR). This course was adapted from the Humboldt State University (HSU) GSP 101 Geospatial Concepts course. This partnership between CR and HSU creates a streamline path for students who plan on transferring to a four-year institution. In addition to easy transferability, the skills learned in this course will prepare any student to move forward with their education in Geographic Information Systems.

The modules are divided into two-week blocks with each week covering a chapter in the textbook. The modules are cumulative and will need to be completed before the next module will be open. This means you must complete each module before you can move forward in the class. It is extremely important to manage your time and not be late, because it is easy to fall behind. The class is set up in a way to discourage tardiness and provide incentive to stay on top of your assignments. Some students might think they can work through multiple labs at a time, trying to catch up, and this is just not an option for this course.

Expected Work Load: The expected workload at is calculated at 3 hours per week for each unit in a standard 16-week course. For the combined lecture and lab, this amounts to nine hours per week. Everyone learns differently and some lab assignments are more difficult that others. From past teaching and learning experience I typically estimate around 8-12 hours per week depending on each individual student learning style. For example, personally I know I am on the slower end, so have to manage my time accordingly.

This course includes components related to fieldwork and data collection. The hallmark of this course is a geospatial mapping project that you will plan and execute from start to finish.

Prerequisites/co-requisites/ recommended preparation

This course is being taught in a hybrid format for Spring 2021 which means all of the lectures and some of the lab activities will be online-based and the remainder of the labs will be in-person field labs with COVID-19 health protocols in place. Because of this format students will be required to have access to adequate computer and internet access and familiarity with basic computer skills. Examples of this include:

- navigate a class in Canvas
- receive, respond and regularly check) messages sent to your CR email account
- download and upload files in Canvas assignments
- use a phone or digital camera (or webcam) to upload "selfies" to your online lab notebook
- use a word processor program (such as Microsoft Word or Google Docs)
- use a webcam or a phone to record and upload videos in Canvas
- use Zoom, email and canvas discussion boards to communicate with peers and instructor

Textbook

Geospatial Concepts: The Fundamentals of Geospatial Science, by Nicolas Malloy and Amy Rock.

The preferred platform for this text is the e-book provided through Kindle, as the canvas course is linked to this version. The other ebooks will be just as good and easy to navigate to the readings and activities on your own. The ebook versions allow for more of an interactive experience where the students are able to read through course material, watch videos, and follow class lab assignments. There are other beneficial features such as highlight and note taking. The e-books are around \$9.99 and very affordable; though there is a free PDF version that can be used, but wont have the same quality of inter-activeness as the e-book. If you decide to purchase the paperback, you would still need access to the videos and lab activities.

To purchase this book, choose one of the links below:

- HSU Press (Free PDF) (Links to an external site.)
- Paperback (Amazon) (Links to an external site.)
- Kindle (eBook) (Links to an external site.)
- Google (eBook) (Links to an external site.)
- Apple (eBook) (Links to an external site.)

Additional readings may be provided or assigned, in the form of materials available freely online or through the Humboldt State University library (HSU Press (Free PDF) link above.

Technical Requirements

As this is an online course, you already know you need reliable internet access (broadband or DSL) and a browser installed on your computer. If you encounter problems with their internet connection while working on this course, it is their responsibility to find an alternative internet access point, such as a public library. The **Chrome** browser is the recommended browser for interacting with the course. Note: Cookies and JavaScript must be enabled. Pop-up blockers should be configured to permit new windows from the Geospatial Institute and CR websites. Other browsers, such as Safari, Edge, and Microsoft Explorer are **not recommended for** this course.

If you do not have a personal computer that please refer to the College of the redwoods online support page. Additionally if your computer is not compatible with the GIS software email your instructor for virtual lab access. The virtual lab has limited space and will be reserved for students who do not have access to a personal computer that is capable of handling course software and materials. If you think that you may need access to the CR virtual lab, please contact the professor during the first week of the course.

Students working from personal computers that do not need the CR virtual lab are required to install or have access to the following software:

 ArcGIS Desktop Student Edition (ArcGIS student licenses are available for all students currently enrolled in a geospatial class.) YOU MUST EMAIL THE INSTRUCTOR OF THE COURSE WITHIN THE FIRST WEEK OF CLASS TO RECEIVE YOUR PERSONAL ACTIVATION CODE. This is extremely important because currently CR has an extremely limited virtual lab, and students will need to run the ArcGIS software from their personal computers to be able to participate in this course. IT IS REQUIRED. It does take some time 1-3 hours to download and set-up the software depending on your internet/experience.

• **File Decompression** Most newer computers come with an unzipping software) or (<u>7-Zip (Links to an external site.)</u> is a free, open-source file compression/decompression utility) <u>Installing 7zip on Windows 10 (Links to an external site.)</u>



- Microsoft Office (Links to an external site.)
- Adobe Acrobat Reader (Links to an external site.)
- Zoom (Links to an external site.)

Additional requirements if you are using your own computer:

Operating System Windows 7, Windows 8/8.1, 10 or higher

Processor 2 GHz or higher

Memory 8 GB of RAM

Graphics Card

NVIDIA or AMD is required to work properly with some of the ESRI ArcGIS

extensions.

Hard Drive Space 60GB free disk space

Plug-ins Adobe Reader [Download from Adobe]

Additional

Software

Java 1.7 or later (https://java.com/en/download/), Adobe Acrobat Reader

Speakers Required (or headphones)

Monitor Capable of at least 1024 x 768 resolution

Accessing the Software

Because of the transition to online instruction, access to software is the responsibility of individual students. If you will be working in the field, or other environment with intermittent internet access, please contact your instructor about other methods for acquiring the requisite course software.

• Office Hours: By appointment. If you need help with a lab assignment I will be available during 'open lab' hours that will be held every Wednesday from 7pm-8pm via zoom. General questions about the course format and content should be posted to the Question and Answer discussion forum. Personal matters should be restricted to direct email.

Accessibility

College of the Redwoods is committed to making reasonable accommodations for qualified students with disabilities. If you have a disability or believe you might benefit from disability-related services and accommodations, please contact your instructor or <u>Disability Services and Programs for Students</u> (DSPS). Students may make requests for alternative media by contacting DSPS based on their campus location:

- Eureka: 707-476-4280, student services building, 1st floor
- Del Norte: 707-465-2324, main building near library
- Klamath-Trinity: 530-625-4821 Ext 103

During COVID19—DSPS will email approved accommodations for distance education classes to your instructor. In the case of face-to-face instruction, please present your written accommodation request to your instructor at least one week before the needed accommodation so that necessary arrangements can be made. Last minute arrangements or post-test adjustments usually cannot be accommodated.

Student Support

Good information and clear communication about your needs will help you be successful. Please let your instructor know about any specific challenges or technology limitations that might affect your participation in class. College of the Redwoods wants every student to be successful.

Evaluation & Grading Policy

A: 94-100, A-: 90-<94, B+: 87-<90, B: 84-<87, B-: 80-<84, C+: 77-<80, C: 70-<77, D: 60-<70, F: <60

Your grade will be composed of online discussions (25%), quizzes (10%), lab activities (45%) and exams (20%).

See CANVAS for rubrics.

Late Assignments: Assignments turned in after the deadline will be deducted 10%*, each additional week the assignment is late an additional 10% will be deducted. Late work will not be accepted after April 30th. *Please stay in communication with me regarding late work*

Admissions deadlines & enrollment policies

Spring 2021 Dates

• Classes begin: 1/16/21

• MLK Jr. Birthday (all campuses closed): 1/18/21

• Last day to add a class: 1/22/21

• Last day to drop without a W and receive a refund: 1/29/21

- Census date: 2/01/21 or 20% into class duration
- Last day to petition to file P/NP option: 2/12/21
- Lincoln's Birthday (all campuses closed): 2/12/21
- President's Day (all campuses closed): 2/15/21
- Last day to petition to graduate or apply for certificate: 3/04/21
- Spring Break (no classes): 3/15/21 3/20/21
- Last day for student-initiated W (no refund): 4/02/21
- Last day for faculty-initiated W (no refund): 4/02/21
- Final examinations: 5/08/21 5/14/21
- *Semester ends: 5/14/21*
- Grades available for transcript release: approximately 5/31/21

Academic dishonesty

In the academic community, the high value placed on truth implies a corresponding intolerance of scholastic dishonesty. In cases involving academic dishonesty, determination of the grade and of the student's status in the course is left primarily to the discretion of the faculty member. In such cases, where the instructor determines that a student has demonstrated academic dishonesty, the student may receive a failing grade for the assignment and/or exam and may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Disruptive behavior

Student behavior or speech that disrupts the instructional setting will not be tolerated. Disruptive conduct may include, but is not limited to: unwarranted interruptions; failure to adhere to instructor's directions; vulgar or obscene language; slurs or other forms of intimidation; and physically or verbally abusive behavior. In such cases where the instructor determines that a student has disrupted the educational process, a disruptive student may be temporarily removed from class. In addition, the student may be reported to the Chief Student Services Officer or designee. The Student Code of Conduct (AP 5500) is available on the College of the Redwoods website. Additional information about the rights and responsibilities of students, Board policies, and administrative procedures is located in the College Catalog and on the College of the Redwoods website.

Inclusive Language in the Classroom

College of the Redwoods aspires to create a learning environment in which all people feel comfortable in contributing their perspectives to classroom discussions. It therefore encourages instructors and students to use language that is inclusive and respectful.

Setting Your Preferred Name in Canvas

Students have the ability to have an alternate first name and pronouns to appear in Canvas. Contact Admissions & Records

to request a change to your preferred first name and pronoun. Your Preferred Name will only be listed in Canvas. This does not change your legal name in our records. See the <u>Student Information Update</u> form.

Canvas Information

If using Canvas, include navigation instructions, tech support information, what Canvas is used for, and your expectation for how regularly students should check Canvas for your class.

Log into Canvas at https://redwoods.instructure.com

Password is your 8 digit birth date

For tech help, email its@redwoods.edu or call 707-476-4160

Canvas Help for students: https://www.redwoods.edu/online/Help-Student

Canvas online orientation workshop: https://www.redwoods.edu/online/Home/Student-

Resources/Canvas-Resources

Community College Student Health and Wellness

Resources, tools, and trainings regarding health, mental health, wellness, basic needs and more designed for California community college students, faculty and staff are available on the California Community Colleges Health & Wellness website.

<u>Wellness Central</u> is a free online health and wellness resource that is available 24/7 in your space at your pace.

Students seeking to request a counseling appointment for academic advising or general counseling can email counseling@redwoods.edu.

Emergency procedures / Everbridge

College of the Redwoods has implemented an emergency alert system called Everbridge. In the event of an emergency on campus you will receive an alert through your personal email and/or phones. Registration is not necessary in order to receive emergency alerts. Check to make sure your contact information is up-to-date by logging into WebAdvisor https://webadvisor.redwoods.edu and selecting 'Students' then 'Academic Profile' then 'Current Information Update.'

Please contact Public Safety at 707-476-4112 or <u>security@redwoods.edu</u> if you have any questions. For more information see the Redwoods Public Safety Page.

In an emergency that requires an evacuation of the building anywhere in the District:

- Be aware of all marked exits from your area and building
- Once outside, move to the nearest evacuation point outside your building
- Keep streets and walkways clear for emergency vehicles and personnel

Do not leave campus, unless it has been deemed safe by the campus authorities.

Del Norte Campus Emergency Procedures

Please review the <u>Crescent City campus emergency map</u> for campus evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information, see the <u>Redwoods Public Safety Page</u>.

Eureka Campus Emergency Procedures

Please review the <u>campus emergency map</u> for evacuation sites, including the closest site to this classroom (posted by the exit of each room). For more information on Public Safety go to the <u>Redwoods Public Safety Page</u> It is the responsibility of College of the Redwoods to protect life and property from the effects of emergencies within its own jurisdiction.

In the event of an emergency:

- 1. Evaluate the impact the emergency has on your activity/operation and take appropriate action.
- 2. Dial 911, to notify local agency support such as law enforcement or fire services.
- 3. Notify Public Safety 707-476-4111 and inform them of the situation, with as much relevant information as possible.
- 4. Public Safety shall relay threat information, warnings, and alerts through the Everbridge emergency alert system, Public address system, and when possible, updates on the college website, to ensure the school community is notified.
- 5. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet, (evacuation to a safe zone, shelter in place, lockdown, assist others if possible, cooperate with First Responders, etc.).
- 6. If safe to do so, notify key administrators, departments, and personnel.
- 7. Do not leave campus, unless it is necessary to preserve life and/or has been deemed safe by the person in command.

Klamath Trinity Campus Emergency Procedures

Please review the responsibilities of, and procedures used by, the College of the Redwoods, Klamath-Trinity Instructional Site (KTIS) to communicate to faculty, staff, students and the general public during an emergency. It is the responsibility of College of the Redwoods, Klamath-Trinity Instructional Site (KTIS) to protect life and property from the effects of emergency situations within its own jurisdiction.

- 1. In the event of an emergency, communication shall be the responsibility of the district employees on scene.
 - a. Dial 911, to notify local agency support such as law enforcement or fire services.
 - b. If safe to do so, notify key administrators, departments, and personnel.
 - c. If safe to do so, personnel shall relay threat information, warnings, to ensure the school community is notified.
 - d. Contact Jolene Gates 530-625-4821 to notify of situation.
 - e. Contact Hoopa Tribal Education Administration office 530-625-4413
 - f. Notify Public Safety 707-476-4111.
- 2. In the event of an emergency, the responsible district employee on scene will:
 - a. Follow established procedures for the specific emergency as outlined in the College of the Redwoods Emergency Procedure Booklet.
 - b. Lock all doors and turn off lights if in lockdown due to an active shooter or similar emergency.
 - c. Close all window curtains.
 - d. Get all inside to safe location Kitchen area is best internal location.
 - e. If a police officer or higher official arrives, they will assume command.
 - f. Wait until notice of all is clear before unlocking doors.

- g. If safe to do so, move to the nearest evacuation point outside building (Pooky's Park), directly behind the Hoopa Tribal Education Building.
- h. Do not leave site, unless it has been deemed safe by the person in command. Student Support Services (required for online classes)

Student Support Services

The following online resources are available to support your success as a student:

- <u>CR-Online</u> (Comprehensive information for online students)
- Library Articles & Databases
- Canvas help and tutorials
- Online Student Handbook

<u>Counseling</u> offers assistance to students in need of professional counseling services such as crisis counseling.

Learning Resource Center includes the following resources for students

- <u>Academic Support Center</u> for instructional support, tutoring, learning resources, and proctored exams. Includes the Math Lab & Drop-in Writing Center
- Library Services to promote information literacy and provide organized information resources.
- Multicultural & Diversity Center

Special programs are also available for eligible students include

- <u>Extended Opportunity Programs & Services (EOPS)</u> provides services to eligible income
 disadvantaged students including: textbook award, career academic and personal
 counseling, school supplies, transportation assistance, tutoring, laptop, calculator and
 textbook loans, priority registration, graduation cap and gown, workshops, and more!
- The TRiO Student Success Program provides eligible students with a variety of services including trips to 4-year universities, career assessments, and peer mentoring. Students can apply for the program in Eureka or in Del Norte
- The <u>Veteran's Resource Center</u> supports and facilitates academic success for Active Duty Military, Veterans and Dependents attending CR through relational advising, mentorship, transitional assistance, and coordination of military and Veteran-specific resources.
- Klamath-Trinity students can contact the CR KT Office for specific information about student support services at 530-625-4821

Other information:

Drop Policy: You may be dropped from the class if you miss 3 or more weeks of class participation, discussion, assignments or labs prior to the end of week 10.

Student Work Samples

Below are some work samples completed by previous students. Reviewing work samples helps students to understand the scope, length, and quality of work related to written assignments.

Note: The examples below are not intended to represent the specific requirements or instructions. Requirements **may change over time**. Always refer to the instructions in Canvas when determining the requirements for any assignment.

- Cartographic-Social-Equality (Links to an external site.)
- Case Law Involving the Use of Maps (Links to an external site.)
- Mapping Noise Pollution Data Using GPS 01 (Links to an external site.)
- Mapping Noise Pollution Data Using GPS 02 (Links to an external site.)
- Mapping Food Deserts in Southern California Counties (Links to an external site.)
- Food Deserts in Southern California

Disclaimer

The specifics of this Course Syllabus can be changed at any time, and you will be responsible for abiding by any such changes. Significant changes to the syllabus will be communicated to you via Canvas announcements.