NREM 3012 - Applied Ecology and Conservation Laboratory

OKLAHOMA STATE UNIVERSITY
Department of Natural Resource Ecology and Management
Fall 2019
SYLLABUS

I. Course Information:

Meeting Location: Ag Hall 169 (and various field sites)

Day/Time:

Section 1 - Tuesday 1:30-5:20 pm
Section 2 – Wednesday 1:30-5:20 pm
Section 3 – Thursday 1:30-5:20 pm

Instructor of record:

Dr. Scott Loss
Email: scott.loss@okstate.edu; Office phone: 405-744-4607; Office location: 544 Ag Hall

Instruction leaders:

Yevgeniya Malyutina (Section 1 - Tuesday) – 467 Ag Hall; yevgeniya.malyutina@okstate.edu
Caleb McKinney (Section 2 - Wednesday) – 474B Ag Hall; caleb.mckinney@okstate.edu
Georgia Riggs (Section 3 – Thursday) – 305 Noble Research Center; georgia.riggs@okstate.edu

Office hours:

Dr. Loss: by appointment (email me at: scott.loss@okstate.edu) or stop by if door open
Instruction leaders: Time and location of regular office hours to be announced

II. Course Materials:

There is no text book or lab manual for the course. Class activities will be based on a series of stand-alone lab exercises. There will also be an assigned reading in some weeks.

III. Course Description:

Understanding how “textbook” ecological concepts apply to on-the-ground natural resource management and conservation is central to becoming a successful wildlife, fisheries, forest, and rangeland manager. Equally important is gaining hands-on field experiences that clarify links between principle and practice and expose students to a science-based understanding of ecological interactions and science-based resource management. This class will cover a variety of ecosystems (from prairies to woodlands to waters) and ecological scales (from individual organisms to ecosystems) and we will employ a variety of data collection techniques that are used to investigate ecological systems and monitor and manage resources.
The overarching theme of the class will be to teach students how to take a scientific inquiry-based approach to ecology and natural resource conservation and management. Components of this scientific approach include: noticing and describing patterns from field observations, developing questions and hypotheses based on observations and data, designing sampling and data collection approaches to address questions/hypotheses, collecting, analyzing, and summarizing data in writing, and drawing conclusions and making management recommendations. Gaining the perspective of a scientific investigator-ecologist is beneficial to students regardless of their future career in natural resource ecology and management.

How this class relates to Fish, Forest, Range, and Wildlife resources

This class is part of the NREM core curriculum, taken by all NREM students. In particular this class covers overarching concepts and methods related to science-based ecology and resource management that are important for all NREM degree options. Other examples of specific concepts and methods include:

Range resources:

- The use of fire and grazing to create heterogeneous rangeland landscapes that enhance livestock productivity and benefit the broad diversity of plant and animal species inhabiting rangelands
- Interactions among belowground (soil, mycorrhizal fungi, and invertebrates including invasive earthworms) and aboveground (plants, livestock, and wildlife) components of rangeland systems
- Effects and management of woody plant encroachment (e.g., by eastern redbud) in rangelands
- Field sampling techniques of relevance to rangeland resources including approaches to measure vegetation density and cover and to sample for soil-dwelling invertebrates (earthworms)

Forest resources:

- History and management of cross timbers oak forests, woodlands, and savannahs, including by use of fire, herbicides, and mechanical thinning
- Effects and management of woody plant encroachment (e.g., by eastern redbud) into forest, woodland, and savannah ecosystems
- Field sampling techniques of relevance to forest resources including approaches to measure tree density, basal area, canopy closure, understory vegetation cover, and hydrological components (e.g., soil moisture and infiltration rates and watershed-level hydrological processes)

Wildlife resources:

- Linkages between the above rangeland and forestry concepts and management approaches and applications to wildlife ecology and management in rangelands and forests
- The ecology of diseases (e.g., tick-borne and mosquito-borne) that affect wildlife and humans and for which wildlife play a key role in disease transmission as reservoir hosts
- Field sampling techniques of relevance to wildlife resources including approaches to measure wildlife habitat (e.g., the above-described forest and rangeland vegetation measurement approaches) and to capturing, measuring, and handling wildlife (mist netting and banding of birds)

Fish resources:

- The ecology of aquatic gradients in Oklahoma reservoirs, including abiotic and biotic factors influencing fish community structure
- Field sampling techniques of relevance to fish resources, including approaches to capture, measure, and handle fish (backpack electrofishing and seining).
IV. Course Objectives:

1. Students will see in-the-field examples of how ecological principles inform real-world research, conservation, and management of natural resources.

2. Upon course completion, students will have been exposed to all components of the scientific method and will understand the basics of experimental design and methods for ecological studies. Specifically, students will be able to:
   - Develop testable research questions and hypotheses based on field observations and data.
   - Have a basic understanding of common pitfalls that can be encountered when designing ecological studies and data collection/monitoring protocols.
   - Collect data and conduct basic graphing and analysis to identify patterns and evidence that contribute to answering ecological research questions and addressing scientific hypotheses.
   - Based on all of the above steps, draw conclusions about research questions and support for hypotheses, identify data limitations, and identify management implications and follow-up research questions.

3. Students will gain experience with many field methods that are useful for collecting data to understand ecological interactions and to monitor, manage, and conserve natural resources, including wildlife, forestry, fisheries, and rangeland resources.

4. Students will become familiar with and gain experience implementing the basics of preparing scientific lab reports.

5. Students will gain extensive experience collaborating in a team setting.

V. Teaching Approach:

The course will be taught at the junior level with the expectation that students have already been introduced to the major areas of NREM through earlier and concurrent coursework. The class will be broken into several modules with each module either 1 or 2 weeks long. In each module, we will first become familiar with an ecosystem, landscape, ecological process, research topic, and/or natural resource management system of interest through brief field lectures and discussions, as well as introduction to and training on data collection methods. Some lab modules will culminate with a formal lab report write-up based on the data collected during the lab. Because this may be many students’ first experience writing natural resource-themed lab reports, we will also cover report-writing basics, and a template will be provided for the first report assignment with students led toward increasing independence in writing throughout the semester. Substantial class time will also be devoted to introducing key concepts related to hypothesis development, study design, and basic data analysis and interpretation, and what constitutes sufficient evidence for drawing conclusions, making management recommendations, and identifying further research needs. Students will be encouraged toward an increasing level of independence in each lab module, and the culmination of the class will be a 4-week lab module where students work in groups during class time to conduct a more substantial independent research project addressing a natural resource ecology question of their choosing at OSU’s Lake Carl Blackwell property. The lab report from the final project will serve as the final exam for the class.
VI. Assignments

**Lab reports:** One learning objective for this course is to become familiar with and gain experience implementing the basics of preparing scientific lab reports. There will be 4 total lab report assignments, including 1 fill-in-the-blank report template assignment and 3 more formal lab report assignments. Lab reports must be turned in **by the beginning of the week’s class period to receive the possibility of full credit. Responses turned in late will be proportionally reduced by 20% for every day they are late.**

**Group research project:** Students will work in groups during the final 4-week lab module to conduct small research projects that address a question with direct application to management of a particular species, landscape, resource, or ecosystem. The project will be completed at OSU’s Lake Carl Blackwell property and will be based on a research question of the group’s choosing, selected in consultation with the instructors. In addition to a final report, there will also be a project proposal assignment that will form a component of the final project grade.

VII. Evaluation:

**Standards:** Grade structure is A-F. The grade achieved depends on demonstrated level of mastery and understanding of course content.

**Grading scale:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>Superior, substantial mastery of course content</td>
<td>90 to 100</td>
</tr>
<tr>
<td>B</td>
<td>Good, excellent understanding of course content</td>
<td>80 to 90</td>
</tr>
<tr>
<td>C</td>
<td>Average, understands course content</td>
<td>70 to 80</td>
</tr>
<tr>
<td>D</td>
<td>Minimal, some increased knowledge</td>
<td>60 to 70</td>
</tr>
<tr>
<td>F</td>
<td>Failing, lack of effort, no change in knowledge</td>
<td>&lt; 60</td>
</tr>
</tbody>
</table>

**Components of grade:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance</td>
<td>15%</td>
</tr>
<tr>
<td>Respectful participation, asking of questions, and contribution to discussions</td>
<td>10%</td>
</tr>
<tr>
<td>Lab reports (4 total)</td>
<td>50%</td>
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<tr>
<td>Independent research project</td>
<td>25%</td>
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<tr>
<td><strong>Total:</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**Attendance Policy and Other Expectations:**

**Attendance and tardiness:** This course meets only once a week and in most weeks, we will either be meeting in the field or heading into the field shortly after the beginning of course periods. *Therefore, attendance and on-time arrival to class are critical.* After one absence of any type, all absences (**even excused absences**) will result in proportionally reduced attendance scores. This equates to a one “free absence” policy, and recognizes that things come up and that students must occasionally miss class. However; on our end, it also removes the need for instructors to make arbitrary decisions about what constitutes an excusable absence. Please note that, due to the field- and experience-based nature of the course, missing a class may make it more difficult to complete lab report assignments. Instructors can help answer specific questions related to missed classes, but it is not our obligation to re-lecture students for missed material.
General Expectations: Read any assigned readings prior to class; ask questions, provide insights, and respectfully participate in discussions related to the week’s exercises; turn in lab reports on time (late assignments will have 20% subtracted for each day late); use the course Canvas page and frequently check university email, but note that the instructors have no obligation to check and respond to email in the late evening and early morning, and do not expect an instantaneous response after typical business hours or on weekends.

Academic Misconduct: Although we encourage collaborative discussion and exchange of ideas among students, plagiarism will not be tolerated. All reports must be your original writing (or for group work, the original effort of your collective group), and for writing assignments that are applicable, you must put all ideas into your own words and cite references for facts and ideas that are not your own. If it is determined that a student has engaged in plagiarism, he or she will be given an “F” grade on the assignment and, depending on the infraction, may face additional sanctions from the University up to/including expulsion. Even copying a single sentence or definition from a website, textbook, or other source without putting it into your own words and attributing the source is plagiarism and has resulted in corrective actions being taken previously in this course. See the OSU Student Code of Conduct for further details: studentconduct.okstate.edu/code.

Disabilities or special needs: Students with disabilities or special needs requiring accommodation are urged to notify Dr. Loss of this circumstance during the first week of class. You should also contact OSU Student Disability Services with at least two weeks advanced notice to ensure accommodations: 405-744-7116.

Weather: Because the class is primarily taught in the field, inclement weather may force an adaptation of the overall schedule and of weekly activities and assignments. However, unless dangerous weather occurs (e.g., lightning in the immediate vicinity), we will likely continue with the planned class schedule, so prepare accordingly. In the most extreme example, the temperature during one semester of this course ranged from 28 to 103 degrees, so be prepared to deal with a wide variety of conditions.

Safety: There are several issues related to entering into the field for class, including heat/dehydration, biting/stinging insects, lightning, etc. Although, instructors will ensure that we do not enter or stay in the field under unsafe conditions, there are additional steps that students must take to ensure their safety. By far the most dangerous condition we will encounter is sun and heat, which can (and has) led to heat exhaustion and heat stroke. Because of issues in the past, students will be required (with no tolerance) to wear appropriate dress for the conditions and to bring at least 32 ounces of water to each class. For more information, see the OSU field safety slideshow on the course Canvas page.
### VIII. Course Calendar (Dr. Loss reserves the right to revise the calendar)

<table>
<thead>
<tr>
<th>Week</th>
<th>Week of</th>
<th>Topic</th>
<th>Reading/Assignment Due (beginning of class period)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Aug 19</td>
<td>Introduction to Ecology &amp; Scientific Inquiry (AGH 169)</td>
<td>View: Field safety powerpoint</td>
</tr>
<tr>
<td>2</td>
<td>Aug 26</td>
<td>Landscape Heterogeneity Lab (OSU Research Range)</td>
<td>Read: Weir et al. (pp. 1-21)</td>
</tr>
<tr>
<td>3</td>
<td>Sept 2</td>
<td>Fish Ecology Lab – Week 1 (Lake Carl Blackwell)</td>
<td>Assignment due: Landscape heterogeneity lab report</td>
</tr>
<tr>
<td>4</td>
<td>Sep 9</td>
<td>Oak Savannah Management/Overstory-Understory Vegetation Lab (Lake Carl Blackwell)</td>
<td>Assignment due: Oak Savannah lab report</td>
</tr>
<tr>
<td>5</td>
<td>Sep 16</td>
<td>Fish Ecology Lab – Week 2 (Lake Carl Blackwell)</td>
<td></td>
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<tr>
<td>6</td>
<td>Sep 23</td>
<td>Disease Ecology Lab – Week 1: Birds (Sanborn Lake)</td>
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<tr>
<td>7</td>
<td>Sep 30</td>
<td>Lab report trouble-shooting session (AGH 169)</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Oct 7</td>
<td>Invasive Earthworm/Soil Ecology Lab – Week 1 (Cross Timbers Ecological Research Station)</td>
<td>Assignment due: Fish Ecology lab report</td>
</tr>
<tr>
<td>9</td>
<td>Oct 14</td>
<td>Invasive Earthworm/Soil Ecology Lab – Week 2 (Cross Timbers Ecological Research Station)</td>
<td>Assignment due: Invasive earthworm lab report</td>
</tr>
<tr>
<td>10</td>
<td>Oct 21</td>
<td>Disease Ecology Lab – Week 2: Ticks (Sanborn Lake)</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Oct 28</td>
<td>Independent Research Lab – Week 1– Selection of project/study design working session (AGH 169)</td>
<td>Assignment due: Independent research project proposal</td>
</tr>
<tr>
<td>12</td>
<td>Nov 4</td>
<td>Red cedar/Hydrology Lab (Cross Timbers Ecological Research Station)</td>
<td>Assignment due: Independent research project proposal</td>
</tr>
<tr>
<td>13</td>
<td>Nov 11</td>
<td>Independent Research Lab – Week 2: Data collection working session (Lake Carl Blackwell)</td>
<td>Be ready: with project proposal/study design finalized</td>
</tr>
<tr>
<td>14</td>
<td>Nov 18</td>
<td>Independent Research Lab – Week 3: Data collection working session (Lake Carl Blackwell)</td>
<td>Be ready: with project data entered/summarized</td>
</tr>
<tr>
<td>15</td>
<td>Nov 25</td>
<td>NO CLASS – THANKSGIVING WEEK</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Dec 2</td>
<td>Independent Research Lab – Week 4: Data analysis, interpretation working session (AGH 169)</td>
<td>Assignment due: Independent research – Final Project Report</td>
</tr>
<tr>
<td>Finals</td>
<td>Dec 9</td>
<td>FINALS WEEK</td>
<td></td>
</tr>
</tbody>
</table>
IMPORTANT DATES
Last day to add a class (without instructor permission) 8/26/2019
Last day to drop a course with no grade and 100% refund 8/26/2019
Last day to add a class (requires instructor & advisor permission) 8/30/2019
Last day to drop a course or withdraw from the University with an automatic “W” and receive a partial refund (requires advisor signature) 8/30/2019
Last day to post 6 week grades 10/2/2019
Last day to file graduation application (for name to appear in Fall Commencement program) 11/1/2019
Last day to drop a class or withdraw from the University with an automatic “W” 11/8/2019
Last day to withdraw from all OSU classes with an assigned grade of “W” or “F” 11/22/2019
Pre-Finals Week 12/2/2019-12/6/2019
Final examinations 12/9/2019-12/13/2019
Final grades due from faculty 12/18/2019

Note: Outreach, Internet, and short courses have unique drop/add and refund deadlines; look up the specific deadlines for these courses on the Short, Internet, and Outreach Class Schedules page of the Registrar’s website http://registrar.okstate.edu/SIO-Schedule.

Fall Semester Holidays
University Holiday 9/2/2019
Student’s Fall Break 10/25/2019

DROPPING A COURSE AND WITHDRAWING FROM THE UNIVERSITY, students often confuse these terms. Dropping a Course (or courses) may occur during the first twelve weeks of the semester. This means, however, that you are still enrolled in at least one other OSU course. Exceptions to the deadlines above may only be considered by petition due to documented extraordinary circumstances and committee approval. The Retroactive Drop/Withdraw Petition and the Petition for a Refund of Tuition and Fees forms are available on the Registrar’s website http://registrar.okstate.edu/Forms.

Withdrawing from the university means dropping all courses and you are no longer enrolled for the current semester. This may occur until the Friday before pre-finals week. The withdrawal process is initiated with your academic advisor. For additional information and dates, go to: http://academicaffairs.okstate.edu/content/adding-dropping-and-withdrawing-courses.

ALERTS AND RESCHEDULING
If the OSU campus officially closes due to inclement weather or other emergencies, alerts are provided to local news media and posted on the OSU website. Missed exams, classes, or assignments may be rescheduled at times outside the normal meeting schedule. If valid, documented circumstances prohibit students from attending the rescheduled classes, instructors should provide reasonable alternative means for makeup.

SEEK ANSWERS TO YOUR QUESTIONS
The OSU faculty and staff want you to be successful in your educational pursuits. If you have questions or concerns, seek help EARLY. We are here to assist you.

ACADEMIC INTEGRITY
101 Whitehurst/405-744-5627/http://academicintegrity.okstate.edu
OSU is committed to maintaining the highest standards of integrity and ethical conduct. This level of ethical behavior and integrity will be maintained in this course. Participating in a behavior that violates academic integrity (e.g., unauthorized collaboration, plagiarism, multiple submissions, cheating on examinations, fabricating information, helping another person cheat, unauthorized advance access to examinations, altering or destroying the work of others, and altering academic records) will result in an official academic sanction. Violations may subject you to disciplinary action including the following: receiving a failing grade on an assignment, examination or course, receiving a notation of a violation of academic integrity on your transcript, and being suspended from the University. You have the right to appeal the charge.

COPYRIGHT & FAIR USE POLICY OF COURSE MATERIALS
Course materials may not be published, leased, sold to others, or used for any purpose other than appropriate OSU-related individual or group study without the written permission of the faculty member in charge of the course and other copyright holders. This paragraph grants you a limited license giving you access to materials for this course, including PowerPoint slides, audio/video recordings, written, or other materials, for appropriate OSU-related educational use only. Lectures should not be recorded without permission from the faculty member and must not be further disseminated or shared.

CLASS ATTENDANCE
Class attendance is a critical component of learning; therefore, you are expected to attend and participate fully in all scheduled class meetings. Many instructors consider attendance so essential that your grade may be affected by your absence. SOME DEPARTMENTS AND PROFESSORS HAVE MANDATORY ATTENDANCE POLICIES. If no written attendance policy is provided before the last day to add a class without instructor permission, no penalty may be assessed for class absences although you may not be permitted to make up certain in-class activities. If you are required to participate in official university-sponsored activities or military training, you should receive an excused absence unless the written course attendance policy indicates otherwise. If you will be absent from class for sponsored activities, you must provide prior notification of the planned absence to the instructor. You may be required to submit assignments or take examinations before the planned absence.

PRE-FINALS WEEK POLICY
Final examinations are scheduled at the end of each semester and are preceded by pre-finals week, which begins seven days prior to the first day of finals. During pre-finals week, all normal class activities will continue; however, no assignment, test, or examination accounting for more than 5% of the course grade may be given; and no activity or field trip may be scheduled that conflicts with another class. This excludes makeup and laboratory examinations, out-of-class assignments (or projects) made prior to pre-finals week and independent study courses. No student or campus organization may hold meetings, banquets, receptions, or may sponsor or participate in any activity, program, or related function that requires student participation. For additional information, contact the Office of Academic Affairs, 405-744-5627, 101 Whitehurst.
**FINAL EXAM OVERLOAD POLICY**

In the event you have three or more final exams scheduled for a single day, you are entitled to arrange with the instructor of the highest numbered course (4 digit course number) or two highest, if you have four finals on one day, to re-schedule that examination(s) at a time and place of mutual convenience during final exam week. If the final exam overload includes a common final exam, the common final exam is excluded from rescheduling unless multiple common exams are scheduled at the same time. You should submit this request in writing, with a copy of your class schedule, at least two weeks prior to the beginning of final exam week. The instructor has one week prior to the beginning of final exam week to arrange a mutually convenient time and place for administration of the final exam. After one week, if an agreement cannot be reached, take the request to the department head.

**INFORMATION TECHNOLOGY**

**Student Email** - OSU uses your OKSTATE.EDU email address as a primary form of communication. Students are expected to check their OSU email on a frequent and consistent basis to remain informed of their official university business. If you do not use the OSU email system you must redirect your okstate.edu email using the Orange-Key System (www.okay.okstate.edu). Failure to maintain an accurate email address may result in missed or lost university communications. For email assistance contact the IT Helpdesk at 405-744-HELP (4357).

**Computer Labs** - A complete description of computer labs and hours of operations are available at their website: https://it.sp.okstate.edu/technology/support/desktop/public/labs.htm

Lab information is also available by calling the Information Technology Help Desk at 405-744-HELP (4357).

**EQUAL OPPORTUNITY**

409 General Academic Building/405-744-7607
https://is2many.okstate.edu/

OSU is committed to maintaining a learning environment that is free from discriminatory conduct based on race, color, religion, sex, sexual orientation, gender identity, national origin, disability, age or protected veteran status. OSU does not discriminate on the basis of sex in its educational programs and activities. Examples of sexual misconduct and/or sex discrimination include: sexual violence, sexual harassment, sexual assault, domestic and intimate partner violence, stalking, or gender-based discrimination. OSU encourages any student who thinks that he or she may have been a victim of sexual misconduct or sexual discrimination to immediately report the incident to the Title IX Coordinator (405-744-7737) or Deputy Title IX Coordinator (405-744-5470). Students may also report incidents of sexual misconduct or sex discrimination to a faculty or staff member, who is then required by federal law (Title IX) to notify the Title IX or Deputy Title IX Coordinator. If a reporting student would like to keep the details confidential, the student may speak with staff in the Student Counseling Center (405-744-5472) or one of the University’s Sexual Assault Victim Advocates (Mon-Fri 8 AM-5 PM, 405-564-2129 or 24 Hour Help Line 405-624-3020).

**STUDENT DISABILITY SERVICES**

315 Student Union/405-744-7116/http://eds.okstate.edu/

According to the Americans with Disabilities Act, each student with a disability is responsible for notifying the University of his/her disability and requesting accommodations. If you think you have a qualified disability and need special accommodations, you should notify the instructor and request verification of eligibility for accommodations from Student Disability Services. Please advise the instructor of your disability as soon as possible, and contact Student Disability Services, to ensure timely implementation of appropriate accommodations. Faculty have an obligation to respond when they receive official notice of a disability but are under no obligation to provide retroactive accommodations. To receive services, you must submit appropriate documentation and complete an intake process to verify the existence of a qualified disability and identify reasonable accommodations.

**STUDENT CONDUCT EDUCATION AND ADMINISTRATION**

328 Student Union/405-744-5470/http://studentconduct.okstate.edu/

By enrolling at Oklahoma State University, you accept responsibility for complying with all University policies and contracts, and for local, state and federal laws on- or off-campus that relate to the University’s mission. The Student Code of Conduct educates students about their civic and social responsibilities including policies and procedures involving student misconduct.

In general, the University expects students to aspire to follow and promote the Cowboy Community Standards or integrity, community, social justice, respect, and responsibility.

**EDMOND LOW LIBRARY HOURS**

www.library.okstate.edu

405-744-9775 or 405-744-9741

Sunday

Noon-7:00 PM

Monday-Thursday

7:30 AM-10:00 PM

Friday

7:30 AM-6:00 PM

Saturday

Noon-7:00 PM

*For holiday and intersession hours, check http://library.okstate.edu/about/hours

*Contact the following for information on hours of operation:

- Architecture Library
  405-744-6047
- Curriculum Materials Library
  405-744-6310
- Veterinary Medicine Library
  405-744-6655

**WHERE TO GO FOR HELP**

**ACADEMIC RELATED SERVICES**

**Instructor** - If you have questions regarding your class, talk to your instructor. Faculty members usually include their office hours and/or phone number in the class syllabus. If you cannot locate this information, set a time to meet with your instructor by speaking with him/her prior to or immediately following your class session or check with the departmental office on when the instructor may be available.

**Academic Advisor** - All students will benefit by conferring with an advisor on a regular basis. If you do not know your advisor or would like to learn more, talk to the Student Academic Services Director for your college.

**Bursar**

113 Student Union/405-744-5993
http://bursar.okstate.edu/

The Bursar Office bills and collects tuition, fees, campus housing, and other university related charges. The Bursar Office also processes and disburses all federal and campus-based funds to students’ bursar accounts and refunds any overpayments on students’ bursar accounts.

**Career Services**

360 Student Union/405-744-5253
http://hireousgrads.com


**Concurrent Student Services and Advising**

University College/040 Student Union/405-744-1389
http://universitycollege.okstate.edu/concurrent/index.html

Find out about academic services for concurrent students or to schedule your next advising appointment.

**Foreign Language Placement Test**

206 Gunderson Hall/405-744-9547
http://languages.okstate.edu/

Students with prior foreign language experience in French, German, or Spanish who take the placement exam and then score a ‘B’ or higher in a more advanced class, will get up to 6 credit hours for the classes below it. Schedule your free test by emailing Nick Howland at nick.howland@okstate.edu.
Multicultural Affairs
240 Student Union/405-744-5481
http://oma.okstate.edu/
Academic, career, and personal success programs are available. Student organizations representing diverse communities and annual events are offered.

Pre-Professional Student Services
University College/040 Student Union/405-744-1389
https://universitycollege.okstate.edu/preprofessional/
Pre-professional services for students from any major on campus, including coordination of contacts with health care professional schools and student interview processes.

Registrar
322 Student Union/405-744-6876
http://registrar.okstate.edu/
The Office of the Registrar provides services related to the creation and maintenance of student academic records. We are here to assist students with enrollment, official transcript requests, degree and enrollment verification, updating personal information in the Student Information System, graduation, and other services.

Scholarships & Financial Aid
119 Student Union/405-744-6604
http://financialaid.okstate.edu
Over 80 percent of Oklahoma State University students received scholarships, grants, work, and low-interest loans totaling over $320 million last year. Contact the Office of Scholarships & Financial Aid to apply for financial aid or to meet with a financial aid counselor.

Transfer Students Services
University College/104 North Classroom Building/405-744-1390
http://universitycollege.okstate.edu/transfer/index.html
This office provides undergraduate transfer students with a seamless transition to OSU by collaborating with various departments on campus, including the Office of Undergraduate Admissions, the LASSO Center, the Office of the Registrar, and Financial Aid.

University Assessment and Testing
107 University Assessment and Testing Building/405-744-5958
http://uat.okstate.edu/
Campus and national tests as well as testing accommodations are provided.

Veteran Benefit Services
322 Student Union/405-744-6343
http://registrar.okstate.edu/Veteran-Benefit-Services
This office provides information and assistance in completing the appropriate forms to apply for educational benefits through the U.S. Department of Veterans Affairs and through the State of Oklahoma.

Veteran Student Academic Services
University College/104 North Classroom Building/405-744-1390
http://universitycollege.okstate.edu/veteran/index.html
This office works with veteran and military-affiliated students to aid in their transition from military service to successful careers by ensuring they succeed academically through coordination of support services from both on- and off-campus entities.

Health Related Services
Counseling Psychology Clinic
107 Public Information Office/405-744-6980
https://education.okstate.edu/cep_clinic/index.html
Faculty and graduate students offer high quality and cost efficient psychological and mental health services to students Monday through Friday.

University Counseling Services
320 Student Union/405-744-5458
https://ucs.okstate.edu/
Services include personal counseling, the Alcohol & Substance Abuse Center, and stress management through the Reboot Center.

University Health Services
1202 W. Farm Road/405-744-7665
http://uhs.okstate.edu/
An allergy clinic, lab services, x-ray, travel clinic, women's clinic and pharmacy are among the services offered at this campus outpatient medical clinic.

Wellness Department
405-744-5510
http://wellness.okstate.edu/
Intramurals, group fitness and sports clubs are among the many programs and services available through the Wellness Department.

CAMPUS LIFE RELATED SERVICES
Fraternity & Sorority Affairs
211J Student Union/405-744-5490
https://icl.okstate.edu/gsorority/
For questions and comments about fraternity and sorority organizations, contact Fraternity and Sorority Affairs.

Housing & Residential Life
100 Iba Hall/405-744-5592
http://reslife.okstate.edu
For questions and comments about housing and residential life, contact the Housing administration office.

Leadership and Campus Life
211 Student Union/405-744-5488
http://icl.okstate.edu
Get involved through student organizations; the Center for Ethical Leadership; International Students & Scholars; Non-traditional Student Services; and Parent & Family Relations.

Service-Learning Volunteer Center
211G Student Union/405-744-5145
https://icl.okstate.edu/volunteer/
Find volunteer opportunities and earn the recognition C.O.R.D. to wear at graduation.

University Dining Services
076 Student Union/405-744-4424
http://dining.okstate.edu/
For questions and comments about meal plans or university dining operations, contact University Dining Services.

ACADEMIC SUPPORT RESOURCES AND TUTORING
Learning and Student Success Opportunity (LASSO) Tutoring Center
021 Classroom Building/405-744-3309
https://universitycollege.okstate.edu/lasso/
LASSO offers free individual and group tutoring for a variety of courses.

Academic Development Center
Kerr-Drummond Mezzanine/405-744-5905
https://reslife.okstate.edu/current-residents/academics
Tutoring and supplemental instruction are available on select weekday, weekend, and evening hours.
STUDENT ACADEMIC SERVICES CENTERS

Agricultural Sciences & Natural Resources
136 Agricultural Hall/405-744-5395
Contact: Dr. Deb VanOverbeke
http://casnr.okstate.edu/students/ssc
Academic support and career guidance resources are available for CASNR students.

Arts & Sciences
213 Life Sciences East/405-744-5658
Contact: Dr. Amy Martindale
https://cas.okstate.edu/advising
Academic support and career guidance resources are available for Arts & Sciences students.

Education, Health & Aviation
106 Willard Hall/405-744-6350
Contact: Dr. Amy Gazaway
http://education.okstate.edu/watson
Academic support, advisement and career counseling is available to all education majors.

Engineering, Architecture & Technology
111 Engineering North/405-744-5276
Contact: Mr. Lance Milis
https://studentservices.okstate.edu/advising
Academic advising and career services are available for all CEAT students. Tutoring is offered for general math, science, and engineering courses.

Human Sciences
101 Human Sciences/405-744-2772
Contact: Ms. Kristi Seuhs
https://humanosciences.okstate.edu/academics/center-student-success.html
Academic support and career guidance resources are available for Human Sciences students.

Spears School of Business
155 Business Building/405-744-2772
Contact: Ms. Marissa McIntyre
https://business.okstate.edu/student-services/
Academic advisement is provided for freshmen through seniors in all business major areas.

University College Advising
214 Student Union/405-744-5333
Contact: Ms. Missy Wikle
https://universitycollege.okstate.edu/uca/
University College Advising has academic advisors to help with your academic needs, whether planning your semester schedule, teaching your First-Year Seminar class, looking at degree options, or helping to bridge the gap between student life and academic success. Call or visit the office anytime Monday through Friday, between 8:00 a.m. and 5:00 p.m.

DISCIPLINE SPECIFIC TUTORING

Accounting
416 Business Building/405-744-2863
https://spears.okstate.edu/accounting/ace/
Support is provided to all students enrolled in classes offered by the OSU School of Accounting.

Biology
303 Life Sciences West
http://bio1114.okstate.edu
Tutoring is provided for BIOL 1114.

College of Engineering, Architecture & Technology Tutoring
ENDEAVOR 102/405-744-1750
https://studentservices.okstate.edu/coaching
Tutoring is provided for Engineering and Engineering Science courses.

The Language Lab
205 Gunderson Hall/405-744-9547
http://languages.okstate.edu/
Two 28-user labs fully equipped with personal computers and listening/recording devices are available. Students may practice vocabulary building and grammar in the target language.

Graduate Research and Writing Lab
306 Edmon Low Library/405-744-1241
http://info.library.okstate.edu/RLS/grads
Offers one-on-one consultations, workshops, and other services for graduate students.

History
101 S Murray Hall/405-744-5680
http://history.okstate.edu/contact
Tutoring is given for Survey of History and upper division courses.

Mathematics Learning Success Center
5th Floor Edmon Low Library/405-744-5818
https://miscookstate.com/
The MLSC provides drop-in tutoring for all students enrolled in 1000 and 2000 level mathematics classes.

Writing Center
440 Student Union/405-744-6671
http://osuwritingcenter.okstate.edu
The Writing Center helps writers throughout the composing process; plan to visit early and often throughout the semester, not just the day before an assignment is due. Tutors work with students to improve brainstorming, organizational, and composing techniques. Multiple locations are available on campus, as well as online tutoring.

FOR MORE INFORMATION

go.okstate.edu/apps
The OSU app is your link to campus departments, OSU news, and maps. The Orange Shield app is the official safety app of OSU.

my.okstate.edu
This portal connects students to a wide range of campus services including links to student email, the library, and the Online Classroom and Community (D2L).

For other comments and inquiries, please contact academics@okstate.edu.