COLLEGE OF AGRICULTURAL AND LIFE SCIENCES

The College of Agricultural and Life Sciences provides educational opportunities to students seeking a wide variety of careers. The students enrolled in the college come from diverse urban, farm, suburban, and rural nonfarm backgrounds, and they have an array of interests.

Students pursue careers in biotechnology, business, communications, engineering, conservation and recreation, health, or public service in agricultural, environmental, and biological sciences industries. Many students continue their education in graduate schools throughout the nation and world or enter professional schools in medicine or veterinary medicine.

EQUIPPING STUDENTS FOR 21ST-CENTURY CAREERS

The college's goal is to ensure that every student develops:

- specialized knowledge in at least one discipline, along with an education broad enough to meet the challenges of changing careers and opportunities
- the ability to think critically and creatively; to synthesize, analyze, and integrate ideas for decision making and problem solving
- the ability to communicate effectively through writing and speaking by observing, reading, listening, and using appropriate information technologies
- a global perspective; an appreciation for the interdependencies among individuals and their workplaces, communities, environments, and world; and an understanding of the interrelationships between science and society
- the ability to work with others in small or large groups, to recognize civic and social responsibilities, and to appreciate the uses of public policy in a democracy
- a respect for truth, a tolerance for diverse views, and a strong sense of personal and professional ethics

DEGREES/MAJORS/CERTIFICATES

The College of Agricultural and Life Sciences provides opportunities for study in a wide variety of department majors and interdisciplinary programs or specializations. In some instances, majors and degrees are offered cooperatively with other schools and colleges at UW–Madison. Students are responsible for knowing academic requirements for graduation and should consult with an advisor regularly.

Freshmen are encouraged to declare a degree and major so that an advisor can be assigned in their area of interest, but students are encouraged to change majors if academic or professional goals change. However, incoming first-year students unsure about which CALS major to declare may opt to remain undeclared while exploring their options. Interested students should contact CALS Transitional Advising and Outreach Services (https://cals.wisc.edu/academics/undergraduate-students/advising) for more information. In addition to their major, students may also elect to complete one or more certificate programs. See the Certificate Programs Offered—Official List (http://registrar.wisc.edu/documents/85_Official_Certificates.pdf) for a complete list. Some of the certificate programs offered in CALS are available to students across campus, regardless of their major.

- Agronomy, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/agronomy/agronomy-bs)
- Biochemistry, B.S. (CALS) (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biochemistry/biochemistry-bs)
- Biology, B.S. (CALS) (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/bacteriology/biology-bs)
- Entomology, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/entomology/entomology-bs)
- Environmental Sciences, B.S. (CALS) (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/environmental-sciences-bs)
- Forest Science, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/forest-science/forest-science-bs)
- Genetics and Genomics, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/genetics/genetics-genomics-bs)
- Horticulture, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/horticulture/horticulture-bs)
- Individual Major, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/individual-major-bs)
- Landscape Architecture, BSLA (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/landscape-architecture-bsla)
• Microbiology, B.S. (CALS) (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/bacteriology/microbiology-bs)
• Nutritional Sciences, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/nutritional-sciences/nutritional-sciences-bs)
• Nutritional Sciences, B.S. Nutrition and Dietetics (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/nutritional-sciences/nutritional-sciences-bs-nutrition-dietetics)
• Plant Pathology, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/plant-pathology/plant-pathology-bs)
• Soil Science, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/soil-science/soil-science-bs)

PEOPLE

CALS DEAN AND DIRECTOR
Kathryn VandenBosch
Meet the College Leadership (https://cals.wisc.edu/about-cals/leadership)

ACADEMIC DEAN’S OFFICE
CALS Office of Academic Affairs
116 Agricultural Hall
1450 Linden Drive
Madison, WI 53706

academicaffairs@cals.wisc.edu
608-262-3003

The Office of Academic Affairs is the academic dean’s office for CALS undergraduate students. The office assists students with university and college policies and procedures such as changing a major, transferring into CALS, awarding dean’s list, interpreting degree audit for graduation, student appeals, and more.

ACADEMIC AND CAREER ADVISING

Academic and career advising is supported in CALS departments by faculty and academic staff. CALS Academic Affairs offers the following resources for all CALS students:

TRANSITIONAL ADVISING AND OUTREACH SERVICES (TAOS)

CALS Transitional Advising and Outreach Services (TAOS) supports prospective, incoming, and continuing undergraduates to successfully transition into CALS. We do this through a variety of outreach, advising, and academic support initiatives. In addition to serving as the primary academic advising home for the CALS Undeclared Major (ALS 000), TAOS works with on- and off-campus students to explore academic opportunities in the college, oversees on-campus transfers, and coordinates CALS Student Orientation, Advising, and Registration (SOAR). In all of these efforts, TAOS supports CALS in creating a welcoming, inclusive learning environment for our diverse student body.

The undeclared major option (ALS 000) is primarily intended for first and second-year students who are unsure of which CALS major(s) they would like to pursue. CALS undeclared students must declare a major by their fourth semester on campus. Exceptions to these policies may be made when there are extenuating circumstances.

For more information on TAOS, transferring to CALS, or entering CALS as an undeclared first-year or continuing student, please contact the CALS Academic Affairs Office, 608-262-3003, academicaffairs@cals.wisc.edu.

DEAN ON CALL

Dean on Call is available in 116 Agricultural Hall from noon – 3:30, Monday through Friday during the academic year and Tuesday through Thursday during the summer. Students with emergency situations or questions regarding academic policies or procedures are welcome to utilize Dean on Call on a drop-in, first come, first served basis. Students typically consult with their advisor prior to meeting with a Dean on Call.

CAREER SERVICES

CALS Career Services provides resources and advising for students to explore career interests and develop skills as they seek employment or admission to graduate or professional programs. Advising appointment and programming information can be found on the Career Services website (https://cals.wisc.edu/academics/undergraduate-students/career-services). Contact Career Services at career@cals.wisc.edu.

ENTERING THE COLLEGE

ADMISSION

Information on admission to the university as a freshman, transfer, or international student is available through the Office of Admissions and Recruitment (http://www.admissions.wisc.edu).

Prospective students with questions about study in the College of Agricultural and Life Sciences may contact the Office of Academic Affairs (http://www.cals.wisc.edu/academics) at 608-262-3003.

First-Year Summer Start (http://www.cals.wisc.edu/quickstart): Incoming first-year CALS students can get a jump-start on their education by taking one or both of the following courses the summer prior to their first semester on campus: QuickStart: Foundations (online first-year seminar) and Quickstart: Connect2Campus (in-person campus immersion experience). Participants will learn about campus resources and opportunities as well as develop a personalized roadmap to reach their academic, personal, and career goals.

TRANSFER STUDENTS

Many students transfer into the College of Agricultural and Life Sciences from other schools and colleges at UW–Madison, from elsewhere in the UW System, or from other universities. The CALS Office of Academic Affairs can provide advice on transfer policies and degree requirements and help transfer students make plans to complete their education in the college. With some specialized majors in the college (e.g., biological systems engineering), an early transfer is advisable. Students should check with the CALS Office of Academic Affairs, 116 Agricultural Hall, 1450 Linden Drive, Madison, WI 53706; 608-262-3003; see also this website (https://cals.wisc.edu/academics/prospective-students).

Some students transfer after their freshman year, some as late as junior year, although a minimum of 30 credits in residence is required for all students. Transfer credits are evaluated by the UW–Madison Office of Admissions after the student has been accepted to the university.
Students transferring to UW–Madison from other UW System campuses or from a Wisconsin Technical College can evaluate course transferability using the Transfer Information System (TIS) (http://www.uwsa.edu/tis).

**ON-CAMPUS TRANSFER**

Students will be considered for transfer to the College of Agricultural and Life Sciences from other schools and colleges at UW–Madison if they:

1. are in good academic standing with the college or school in which they are enrolled,
2. meet any special requirements as specified by the intended major, and
3. have earned fewer than 86 credits, which is the threshold for senior status.

Students who have been dropped by another college or school must be readmitted to that college or school before being considered for transfer into the College of Agricultural and Life Sciences. However, being readmitted for transfer purposes by another school or college does not guarantee acceptance by CALS.

Ideally, the transfer should be initiated in advance of the semester in which enrollment is planned. Students may initiate the transfer process at any time during the semester. However, the Office of the Registrar determines when transfers may be completed; this window generally is open from approximately the second through the twelfth week of classes. Students may transfer during the summer session only if they are enrolled in summer courses. Consult the Office of Academic Affairs (http://www.cals.wisc.edu/academics) website or email (academicaffairs@cals.wisc.edu) for details.

**SPECIAL STUDENTS**

There are two basic categories of Special students at UW–Madison:

1. the College Special, who is allied with a college and must obtain an "Academic Action" from an academic dean to enroll each semester, and
2. the University Special, who is a nondegree student not allied with a particular college or school and is admitted through the Division of Continuing Studies (http://guide.wisc.edu/nondegree).

The College of Agricultural and Life Sciences Special student classification is currently on hiatus. Information about the University Special student classification is available from the Division of Continuing Studies (http://continuingstudies.wisc.edu/advising/prospective.htm).

**WISCONSIN EXPERIENCE**

From a first-year seminar course to completion of a culminating major-related capstone experience, CALS students have the opportunity to participate in multiple signature CALS experiences. These experiences are defined by high-impact experiential learning and serve as the foundation of a CALS education, regardless of a student’s major.

Here are ten ways to get involved and begin to create your own legacy on campus:

1. First-Year Summer Start (https://cals.wisc.edu/quickstart). Incoming first-year CALS students can get a jump-start on their education by taking one or both of the following courses the summer prior to their first semester on campus: QuickStart: Foundations (online first-year seminar) and QuickStart: Connect2Campus (in-person campus immersion experience). Participants will learn about campus resources and opportunities as well as develop a personalized roadmap to reach their academic, personal, and career goals.

2. First-Year Seminar (p. 4). All first-year CALS students are provided a seamless transition to college by enrolling in one of several seminars with typically fewer than 25 students, close interaction with the instructor, and the opportunity to participate in meaningful dialogue about their experiences at UW–Madison.

3. CALS Honors Program (https://cals.wisc.edu/academics/undergraduate-students/outside-the-classroom/honors-program). Highly motivated students can pursue a more rigorous course of study and be recognized for their achievements.

4. Study Abroad (https://cals.wisc.edu/academics/undergraduate-students/studyabroad). Students can choose from short-term programs of a few weeks to a full semester or year abroad based on their interests and academic plans. Combined with the International Studies (p. 4) requirement, CALS students develop the skills needed to successfully interact, motivate and work with a culturally diverse population.

5. Internships (https://cals.wisc.edu/academics/undergraduate-students/outside-the-classroom/internships). Real-world work or field experience will: (a) help students explore a career or job, (b) increase post-graduation employment opportunities, and (c) broaden professional networks.

6. Leadership and Student Organizations (https://cals.wisc.edu/academics/undergraduate-students/outside-the-classroom/leadership-programs). CALS has many opportunities for students to learn about and practice leadership including a leadership seminar, a leadership retreat, student organizations (over 30 in CALS and 1000 campuswide), and college committees.

7. Mentored Research / Independent Study (https://cals.wisc.edu/academics/undergraduate-students/outside-the-classroom/mentored-research-independent-studies). UW–Madison is known for its cutting-edge research. Students have the opportunity to be part of the discovery process by earning academic credit.

8. Service (http://www.morgridge.wisc.edu). CALS students have a strong record of service to the local, state, and international communities. Visit the Morgridge Center for opportunities.

9. Facilities (https://cals.wisc.edu/about-cals/visit-cals). CALS has outstanding facilities for student housing, instruction, and research. From the Allen Centennial Garden with the former dean’s residence to 13 Agricultural Research Stations, students experience hands-on and unique learning environments.

10. Capstone (p. 4). Students integrate and apply knowledge in a culminating learning experience designed to prepare them to address real-world problems after graduation.

The majority of CALS students complete several of the signature experiences above.

For example, in 2017-2018:

- 59% of CALS graduates completed internships or field experiences
- 50% of CALS graduates completed mentored research experiences
- 100% of CALS graduates completed a capstone experience
POLICIES AND REGULATIONS

Policies may be found on the Office of Academic Affairs KnowledgeBase (https://kb.wisc.edu/cals/academicaffairs).

REQUIREMENTS

All undergraduate students in CALS must satisfy a set of college and university requirements:

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin—Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (http://guide.wisc.edu/undergraduate/requirementsforundergraduatestudytext) section of the Guide.

General Education

- Breadth—Humanities/Literature/Arts: 6 credits
- Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
- Breadth—Social Studies: 3 credits
- Communication Part A & Part B *
- Ethnic Studies *
- Quantitative Reasoning Part A & Part B *

* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

UNIVERSITY DEGREE REQUIREMENTS

Total Degree

To receive a bachelor’s degree from UW—Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

Residency

Degree candidates are required to earn a minimum of 30 credits in residence at UW—Madison. "In residence" means on the UW—Madison campus with an undergraduate degree classification. "In residence" credit also includes UW—Madison courses offered in distance or online formats and credits earned in UW—Madison Study Abroad/Study Away programs.

Quality of Work

Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

In addition to the University General Education Requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Specific requirements for all majors in the college and other information on academic matters can be obtained from the Office of Academic Affairs (http://www.cals.wisc.edu/academics), College of Agricultural and Life Sciences, 116 Agricultural Hall, 1450 Linden Drive, Madison, WI 53706; 608-262-3003. Academic departments and advisors also have information on requirements. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies and Science), but courses counted toward university requirements may also be used to satisfy a college and/or a major requirement; similarly, courses counted toward college requirements may also be used to satisfy a university and/or a major requirement.

COLLEGE REQUIREMENTS FOR ALL CALS B.S. DEGREE PROGRAMS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.</td>
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<tr>
<td></td>
<td>Residency: Students must complete 30 degree credits in residence at UW—Madison after earning 86 credits toward their undergraduate degree.</td>
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<tr>
<td></td>
<td>First Year Seminar (p. 4)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International Studies (p. 4)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical Science Fundamentals</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>CHEM 103 General Chemistry I</td>
<td></td>
</tr>
<tr>
<td>or CHEM 108 Chemistry in Our World</td>
<td></td>
<td></td>
</tr>
<tr>
<td>or CHEM 109 Advanced General Chemistry</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Biological Science</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Additional Science (Biological, Physical, or Natural)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Science Breadth (Biological, Physical, Natural, or Social)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>CALS Capstone Learning Experience: included in the requirements for each CALS major (see &quot;Major Requirements&quot;) (p. 4)</td>
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</tbody>
</table>

Students are advised to complete introductory and basic course requirements (i.e., biological and physical sciences, chemistry, mathematics, communications, etc.) early in their academic programs.

Students must also satisfy a minimum of 15 credits in the selected major (these 15 credits may not be double counted with CALS or General Education requirements) and a Capstone course that meets the stated criteria (and may be included in the 15 credits toward the major).
CALS FIRST-YEAR SEMINAR REQUIREMENT

Courses meeting the CALS first-year seminar requirement must meet most of the following criteria:

- The course is designed specifically for first-year undergraduate students, to support their academic and personal transition to UW–Madison. For example, the course may acquaint students with academic, campus and community resources to assist in their transition through presentations, discussion, projects, or papers. Because students took this course, their transition to UW–Madison is more rapid and well supported.

- Course enroll fewer than 25 students or a significant portion of the course meets in groups of fewer than 25 students. A larger lecture course will be considered if students interact regularly in sustained and substantive small groups with a faculty member or well-prepared graduate student or peer. This interaction must go beyond review of material and question and answer and be an ongoing relationship.

- Students receive frequent feedback from the instructor(s) on their academic performance and receive a grade in the course.

- Students are put in circumstances that essentially demand they interact with faculty and peers about substantive matters. As a result of taking this course, students have gotten to know their instructor(s) and peers through meaningful course-related dialogue.

- Students will experience diversity through meaningful dialogue with people who are different from themselves and/or engage with diversity through course content which addresses inclusivity, diversity and identity.

- Students experience an integration of experiential and classroom learning. For example, students might be asked to attend a student organization meeting, meet with a faculty or staff member, or participate in research or service.

- Students have opportunities to integrate, synthesize and apply knowledge while exploring big questions and big ideas.

- The learning objectives for the course are aligned with the UW–Madison Essential Learning Outcomes (https://assessment.provost.wisc.edu/uw-madison-essential-learning-outcomes).

The following courses satisfy the criteria for the 2023-2024 academic year:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTEGSCI 140</td>
<td>Exploring Service in Science</td>
<td>1</td>
</tr>
<tr>
<td>INTER-AG 140</td>
<td>CALS QuickStart: Foundations</td>
<td>1</td>
</tr>
<tr>
<td>INTER-AG 155</td>
<td>Issues in Agriculture, Environment, and Life Sciences</td>
<td>1</td>
</tr>
<tr>
<td>INTER-AG 165</td>
<td>Introduction to International Issues in Agricultural &amp; Life Sciences</td>
<td>1</td>
</tr>
<tr>
<td>INTER-AG 175</td>
<td>WISE Seminar</td>
<td>1</td>
</tr>
<tr>
<td>INTEREGR 170</td>
<td>Design Practicum</td>
<td>3</td>
</tr>
<tr>
<td>INTER-HE 201</td>
<td>Belonging, Purpose and the Ecology of Human Happiness: EcoYou</td>
<td>3</td>
</tr>
<tr>
<td>ILS 138</td>
<td>CRC First-Year Seminar: Foundations of a Liberal Arts Education</td>
<td>1</td>
</tr>
</tbody>
</table>

First Year Interest Groups (All) 3

1. Approved topic: Multiculturalism & Social Justice (Seminar for Multicultural Learning Community)
2. Approved topics: First-Year Transition Active Student and PEOPLE First Year Experience Seminar
3. For more information, see http://figs.wisc.edu/

REQUEST TO CONSIDER COURSE FOR FIRST-YEAR SEMINAR REQUIREMENT

Faculty and staff interested in submitting a course to count for the First-Year Seminar requirement may complete an online survey (https://uwmadison.co1.qualtrics.com/jfe/form/SV_BvKNkkYTZsDzGFz) with the following information:

- Updated course syllabus
- Statement of how the course meets the criteria
- Contact information for the course coordinator

CALS INTERNATIONAL STUDIES REQUIREMENT

Required of all CALS majors, the intent of the International Studies requirement is to deepen student knowledge and understanding of international issues related to scientific and sociological themes in CALS; develop openness, awareness and respect with regard to other cultures; and prepare students to address global challenges as engaged employees and active citizens.

The following learning outcomes must be satisfied for courses to fulfill the international studies requirement:

- Identify and explain, to diverse audiences, global issues pertaining to one or more CALS Priority Themes (https://cals.wisc.edu/about-cals/initiatives/strategic-plan/priority-themes)
- Demonstrate critical thinking and comparative perspectives with respect to experiences or cultural approaches to international challenges

Courses that satisfy the 3-credit CALS International Studies requirement must meet all of the following criteria:

- Be connected to one or more of the CALS Priority Themes
- Include substantial international comparative content
- Include substantial non-U.S. content (typically >50% of the content or assignments or grade in the course)
• Facilitate active student engagement consistent with the learning outcomes and university assessment criteria
• Fulfill 3 credits (either by a single course or a pair of courses)

**APPROVED INTERNATIONAL STUDIES COURSES (EFFECTIVE FALL 2019)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AN SCI/DY SCI 370</td>
<td>Livestock Production and Health in Agricultural Development</td>
<td>3</td>
</tr>
<tr>
<td>A A E/ENVIR ST 244</td>
<td>The Environment and the Global Economy</td>
<td>4</td>
</tr>
<tr>
<td>A A E 319</td>
<td>The International Agricultural Economy</td>
<td>3</td>
</tr>
<tr>
<td>A A E/AGRONOMY/INTER-AG/ NUTR SCI 350</td>
<td>World Hunger and Malnutrition</td>
<td>3</td>
</tr>
<tr>
<td>A A E/INTL ST 373</td>
<td>Globalization, Poverty and Development</td>
<td>3</td>
</tr>
<tr>
<td>A A E/INTL ST 374</td>
<td>The Growth and Development of Nations in the Global Economy</td>
<td>3</td>
</tr>
<tr>
<td>A A E/ECON 473</td>
<td>Economic Growth and Development in Southeast Asia</td>
<td>3</td>
</tr>
<tr>
<td>A A E/ECON 474</td>
<td>Economic Problems of Developing Areas</td>
<td>3</td>
</tr>
<tr>
<td>A A E/ECON/INTL BUS 462</td>
<td>Latin American Economic Development</td>
<td>3</td>
</tr>
<tr>
<td>A A E/ECON 477</td>
<td>Agricultural and Economic Development in Africa</td>
<td>3</td>
</tr>
<tr>
<td>AGRONOMY 377</td>
<td>Cropping Systems of the Tropics</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;E SOC/ENVIR ST/ SOC 540</td>
<td>Sociology of International Development, Environment, and Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>DY SCI/AGRONOMY/INTER-AG 471</td>
<td>Food Production Systems and Sustainability</td>
<td>3</td>
</tr>
<tr>
<td>ENTOM/ ENVIR ST 201</td>
<td>Insects and Human Culture-a Survey Course in Entomology</td>
<td>3</td>
</tr>
<tr>
<td>ENTOM/ ZOOLOGY 371</td>
<td>Medical Entomology</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST/ ZOOLOGY 360</td>
<td>Extinction of Species</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI/AGRONOMY/ENTOM 203</td>
<td>Introduction to Global Health</td>
<td>3</td>
</tr>
<tr>
<td>HORT 370</td>
<td>World Vegetable Crops</td>
<td>3</td>
</tr>
<tr>
<td>PL PATH/BOTANY 123</td>
<td>Plants, Parasites, and People</td>
<td>3</td>
</tr>
<tr>
<td>PL PATH 311</td>
<td>Global Food Security</td>
<td>3</td>
</tr>
<tr>
<td>HORT/ AGRONOMY 376 &amp; HORT 378</td>
<td>Tropical Horticultural Systems and Tropical Horticultural Systems International Field Study</td>
<td>3</td>
</tr>
<tr>
<td>AN SCI/DY SCI/FOOD SCI/ SOIL SCI 472 &amp; DY SCI/AN SCI/FOOD SCI/ SOIL SCI 473</td>
<td>Animal Agriculture and Global Sustainable Development and International Field Study in Animal Agriculture and Sustainable Development</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 375</td>
<td>Special Topics (Forest and Climate Change Policy)</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 699</td>
<td>Special Problems (UW SCORE Cambridge International Research Program (England))</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 699</td>
<td>Special Problems (UW SCORE Oxford International Research Program (England))</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 699</td>
<td>Special Problems (UW SUPERG International Research Program (Germany))</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI/INTER-AG 421</td>
<td>Global Health Field Experience (UW Mobile Clinics and Health Care in Uganda)</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI 375 &amp; NUTR SCI/INTER-AG 421</td>
<td>Special Topics and Global Health Field Experience (Sri Lanka Pre-departure Seminar and Community Health and Asset-Based Community Development in Sri Lanka)</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI/INTER-AG 421</td>
<td>Global Health Field Experience (UW Ghanaian Health and Food Systems: Human, Agricultural &amp; Environmental Health)</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI 375 &amp; NUTR SCI/INTER-AG 421</td>
<td>Special Topics and Global Health Field Experience (Uganda Pre-departure Seminar and UW Agriculture, Health and Nutrition in Uganda)</td>
<td>3</td>
</tr>
<tr>
<td>NUTR SCI/INTER-AG 421</td>
<td>Global Health Field Experience (UW Health, Education and Tanzanian Culture)</td>
<td>3</td>
</tr>
<tr>
<td>MICROBIO 304 &amp; POP HLTH 645</td>
<td>Biology of Microorganisms Laboratory and Global Health Field Course (Thailand)</td>
<td>3</td>
</tr>
<tr>
<td>MICROBIO 399</td>
<td>Coordinative Internship/Cooperative Education (UW Microbiology International Internships (Thailand))</td>
<td>3</td>
</tr>
</tbody>
</table>

Some courses are “special topics” courses, internships, directed study, or specific sections. Only the specific course sections listed are approved to meet the CALS International Studies requirement, and will require manual modification of a student’s degree audit through completion of a simple DARS Update Form. See https://
Students: See https://cals.wisc.edu/academics/undergraduate-students/cals-international-studies-requirement/ for circumstances under which exceptions will be considered and the appeal process. Appeals will only be considered under special circumstances and if the course meets all the criteria above.

CALS CAPSTONE LEARNING EXPERIENCE REQUIREMENT

A CALS Capstone is a course in which students are required to integrate diverse bodies of knowledge to solve a problem or formulate a policy of societal importance with the intent of facilitating the transition to post-baccalaureate life.

A Capstone Experience should:

- Develop problem solving skills
- Expose the student to multidisciplinary approach
- Develop teamwork and interpersonal skills, including the ability to communicate effectively to multiple audiences
- Develop skills in accessing and using information resources (e.g., electronic databases, library resources, national repositories)
- Address societal, economic, ethical, scientific, and professional issues
- Communicate and extend the capstone experience via written, oral, and/or multimedia reports by each student

The Capstone Experience will normally be completed during the student's final 2 or 3 semesters. The intent is to have the student utilize and integrate their undergraduate learning into a culminating, or capstone, experience. Students should consult with their departmental faculty advisors for specific information regarding this requirement. Where appropriate, students should submit a copy of the final project materials to the campus library (via Minds@UW [http://uwdcc.library.wisc.edu/minds/index.shtml]) or similar.

CALS HONORS IN THE MAJOR COLLEGE-LEVEL REQUIREMENTS

CALS has two different avenues to earn an Honors degree designation. Students may complete either based on their interests and goals. Students are not allowed to complete both types of honors. In either option, a student must successfully complete a Senior Honors Thesis approved by the research mentor or committee. Information about CALS Honors in Research can be found here (p. 10).

Honors in the Major offers CALS students an advanced program of study within the students’ major field and closely related disciplines. In this path, students must complete a specified number of Honors credits in a designated set of courses. Students must be well-prepared in courses leading into the major field of study and be willing to devote time and energy to a rigorous academic experience. Well-prepared students who plan to obtain advanced degrees in the discipline should consider applying to participate in Honors in the Major. This option is only available for specific majors in the college (see the Requirements tab for the major, or visit the CALS Honors website [https://cals.wisc.edu/academics/undergraduate-students/inside-the-classroom/honors-program/honors-in-the-major] for more information).

To earn Honors in the Major, students must first be admitted to the college's Honors Program, and must maintain a cumulative GPA of at least 3.25 with a minimum GPA of 3.0 in Honors (or equivalent) coursework. Students may apply for admission to the Honors Program for Honors in the Major at any time but are strongly advised to apply before the junior year. A departmental advisor or advisory committee monitors progress toward Honors in the Major. The department will certify satisfactory completion to the Associate Dean of Academic Affairs prior to graduation.

The Honors in the Major requirements vary by department, but all are approved by the College Honors Committee to include the following requirements:

1. Students must successfully complete at least 20 credits of courses taken for Honors (or equivalent) from a list of courses provided by the department. The list may include Honors and advanced non-Honors courses that add rigor to the undergraduate program in the major.

2. Students must prepare a Senior Honors Thesis (including preparing a research proposal, conducting the research, and presenting the results orally and in writing). A student’s faculty advisor is responsible for approving the Senior Honors Thesis, in consultation with the student’s research mentor if different from the advisor. The department sets the number of Senior Honors Thesis credits (681–682) for the project. Thesis credits are not included in the 20 credits of Honors (or equivalent) course work required to earn Honors in the Major.

3. Students must present their Senior Honors Thesis at the CALS Undergraduate Research Symposium or another public research arena.

4. The thesis must be approved by both the student’s advisor and mentor (if different from the advisor) and submitted electronically to CALS Academic Affairs before the student can be awarded the Honors designation. The following documents must accompany the thesis:

   a. Cover Sheet. Students electing to make their theses public should use the Submitting Your Honors Thesis Cover Sheet ([https://cals.wisc.edu/wp-content/uploads/2017/05/publiccoversheet_form.pdf])—with permission to post on Minds@UW ([https://minds.wisconsin.edu/handle/1793/21798]); those choosing not to make their theses public should use the Submitting Your Honors Thesis Cover Sheet ([https://cals.wisc.edu/wp-content/uploads/2017/05/notpubliccoversheet_form.pdf])—without permission to post on Minds@UW ([https://minds.wisconsin.edu/handle/1793/21798]). If a student opts to make his or her thesis available to the public, Steenbock Library will upload the thesis to the College of Agricultural and Life Sciences Honors and Undergraduate Research Program section of Minds@UW ([https://minds.wisconsin.edu/handle/1793/21798]). This is an excellent way for students to showcase their work to employers, graduate schools, family, and friends, and to provide examples of Honors theses to future Honors students.

   b. Abstract Page. The Abstract Page ([https://cals.wisc.edu/wp-content/uploads/2017/05/Abstract_Form.doc]) requires an abstract of not more than 150 words and must be signed by both the student and his/her research mentor.

Upon successful completion of program requirements, students will receive an Honors designation on their transcript.

DEGREES OFFERED
The College of Agricultural and Life Sciences offers five bachelor of science (B.S.) degree programs:

B.S. DEGREE
B.S.–BIOLOGICAL SYSTEMS ENGINEERING (HTTP://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/BIOLOGICAL-SYSTEMS-ENGINEERING/BIOLOGICAL-SYSTEMS-ENGINEERING-BS)
B.S.–LANDSCAPE ARCHITECTURE (HTTP://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/COLLEGE-WIDE/LANDSCAPE-ARCHITECTURE-BSLA)

The B.S. degree program provides a broad and general foundation for almost two dozen majors in the college: agricultural business management, agricultural and applied economics, agronomy, animal science, biochemistry, biology, biological systems engineering, community and environmental sociology, dairy science, entomology, environmental sciences, food science, forest science, genetics and genomics, horticulture, landscape architecture, life sciences communication, microbiology, nutritional sciences, nutrition and dietetics, plant pathology, soil science, and wildlife ecology.

MULTIPLE DEGREES OR MAJORS
Under certain circumstances it may be possible for a student to earn more than one undergraduate major or degree. It is expected that the programs be significantly different from each other and that approval be received prior to the student having earned 86 credits. More information is available below and via Academic Affairs in 116 Agricultural Hall.

SECOND BACHELOR OF SCIENCE DEGREE REQUIREMENTS
Those with a bachelor of science (B.S.) or bachelor of arts (B.A.) degree from the University of Wisconsin–Madison or other accredited institution may, if eligible, pursue a second bachelor’s degree from the College of Agricultural and Life Sciences.

Those who have been out of school for one semester or more must apply for admission (or readmission) with the regular undergraduate application. Continuing UW–Madison students do not need to submit this form. All candidates need an academic dean’s permission from the Office of Academic Affairs to work toward a second bachelor’s degree. A minimum of a 2.0 GPA is required. Several college majors require a higher GPA.

The following requirements for the second bachelor’s degree must be met:

- Students must complete a minimum of 30 credits in residence, of which 15 or more must be in the major field as specified by the major department. These credits are in addition to credits earned for the first degree.
- Candidates must complete all university, college, major, and curricular degree program requirements.

All second-degree candidates must be accepted by the department offering their program of interest and have their program approved by the college before beginning the program.

EARNING TWO UNDERGRADUATE DEGREES SIMULTANEOUSLY
A student who wishes to earn two undergraduate degrees simultaneously (in contrast to earning two undergraduate majors simultaneously) should consult with the Office of Academic Affairs as early as possible in the academic career regarding feasibility.

If the two degrees to be earned are within the College of Agricultural and Life Sciences, at least 30 additional credits and all course and grade point requirements must be completed. Thus, a minimum of 150 credits (for most majors) would be required. Some courses may satisfy requirements for both degrees. A student must have an advisor in both major fields. To work on two degrees simultaneously within the college, a student should seek permission as early as possible to ensure that it is feasible to complete both degrees.

If the two degrees to be earned are from two different colleges (one degree in Agricultural and Life Sciences and one degree in another school or college on this campus), the undergraduate dean in both colleges must approve the student’s plan. Note that not all colleges will allow dual degrees. Where allowed, the following academic policies shall be followed (additional policies may exist):

1. Admission into the other college or school shall be based on that particular college or school admission criteria.
2. A student may seek two baccalaureate degrees simultaneously (in contrast to two majors), each from a different college, provided that the two degree programs differ sufficiently so that the combined total requirements for the two degrees are at least 150 credits and that the student’s program is approved by both colleges before the student has earned 86 credits. The degrees from each college will be awarded simultaneously.

Special applications and additional information pertaining to the earning of two undergraduate degrees simultaneously are available from the Office of Academic Affairs, 116 Agricultural Hall.
EARNING TWO UNDERGRADUATE MAJORS SIMULTANEOUSLY

CALS permits undergraduates to pursue two CALS majors simultaneously. The following policies and procedures have been established for this program:

a. The student must have approval in advance from their CALS major advisor, the advisor of their desired second major, and the Associate Dean for Academic Affairs in the Office of Academic Affairs in CALS. This approval must be granted before the student has earned 86 credits.

b. The student must satisfy all requirements of both majors. The student must meet all CALS general course requirements and the degree program requirements, as well as all major field requirements.

The diploma awarded will be based on the certification of completion of the degree. The transcript of grades will note the completion of requirements for two or more majors.

EARNING A LETTERS AND SCIENCE MAJOR WHILE COMPLETING A DEGREE PROGRAM IN THE COLLEGE OF AGRICULTURAL AND LIFE SCIENCES

The College of Letters & Science (L&S) permits undergraduates currently enrolled in the College of Agricultural and Life Sciences to complete an additional undergraduate major offered by L&S and have this fact noted on the transcript.

The following policies and procedures have been established for this program:

1. The student must have advance approval from their CALS major advisor, their L&S major advisor, and the Associate Dean for Academic Affairs in the Office of Academic Affairs in CALS. This approval must be granted before the student has earned 86 credits.

2. The L&S major is not to substitute for any major in CALS.

3. The student must satisfy all requirements of the L&S major, both the requirements established by the department (i.e., certain courses) and those established by L&S (e.g., 15 credits of advanced work in the major in residence at UW–Madison). The student must meet all CALS general course requirements and the degree program requirements, as well as all major field requirements.

4. Requests for substitutions or other modifications of the requirements of a given L&S major must be acted on by an L&S dean, in consultation with the Associate Dean for Academic Affairs in CALS, before enrollment in the course.

STUDENT SERVICES

Staff in the Office of Academic Affairs provide a variety of services. They certify students for their respective degrees upon graduation, maintain student records, administer scholastic policies, administer college scholarships and loans, coordinate development of curricula, act on student withdrawals, counsel students about career and study opportunities, host interviews and career-related events and workshops, oversee one undergraduate housing unit, operate the Farm and Industry Short Course, assist with degree audit reports, help departments plan and assess educational programs, and coordinate and maintain programs for students and staff. Special counseling is available for interested minority or disadvantaged students, students with disabilities, and students with unusual circumstances or needs.

STUDENT ADVISING

Every student enrolled in the college has an assigned advisor. Students are expected to consult their advisors before each registration period, and are encouraged to consult their advisors throughout the year. Faculty/department staff advisors help students plan their coursework to meet their educational objectives. When students enroll in the college as beginning freshmen or as transfer students, they are assigned an advisor in their major field of study. Advisors will talk with students about educational and career objectives and counsel them about meeting degree requirements and planning their educational programs.

Once students have decided on an area of study, their advisors will guide them toward courses in that area and advise them on how to fulfill university and college requirements. Students can change their advisor if they change their major or if they find a different advisor with interests more similar to their own. The change is made through the department or through the Office of Academic Affairs.

Students are encouraged to seek advice from university faculty and staff, in addition to their assigned advisor. There are many people on campus who are willing and able to help students; however, it is the student’s responsibility to seek advice.

CAREER SERVICES

The College of Agricultural and Life Sciences provides resources and advising for students to explore career interests and develop skills as they seek employment or admission to graduate or professional programs. CALS Career Services, located in 116 Agricultural Hall, assists students with the full time and internship search process by helping them learn how to articulate their skills and abilities to future employers and graduate/professional schools. The career services team manages the campus wide career and internship fairs held twice per year. They also arrange workshops and classroom visits on a variety of career development topics and host recruiters for networking events, on-campus interviews, and industry panel discussions. Many students secure internships and full time employment through connections with employers on campus. Students are encouraged to utilize CALS Career Services early in their undergraduate experience. See CALS Career Services (https://cals.wisc.edu/academics/undergraduate-students/career-services) for more information.

The Career Services Office is operated as a service to students. The college cannot guarantee job placement.

INTERNATIONAL ACADEMIC OPPORTUNITIES

Today’s college graduates must be prepared for the international community in which they will live and work. Study and research abroad programs offer students unique experiences, which cannot be replicated on the UW–Madison campus. The College of Agricultural and Life Sciences (CALS) offers 35+ short and long-term programs in more than 20 countries, the majority of which are open to students from across campus. All programs carry UW–Madison academic credit and many fulfill the field experience requirement for the undergraduate certificate in global health (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/nutritional-sciences/global-health-certificate). International academic opportunities allow students to enrich their education by experiencing other cultures and broadening their understanding of agricultural and life sciences outside the United States. CALS programs address topics such as food security and sustainable food systems,
agriculture and nutrition, health care, environmental health, and climate change, among others. Students may also receive academic credit for participating in study abroad programs administered by UW’s International Academic Programs (IAP) office. To learn more about CALS Study Abroad, please visit Study Abroad (https://cals.wisc.edu/academics/undergraduate-students/studyabroad).

The CALS study abroad team, including student peer advisors, is located in the Office of Academic Affairs, 116 Agricultural Hall. Students are welcome to stop by for more information or contact us via email at studyabroad@cals.wisc.edu.

**FINANCIAL RESOURCES**

In addition to university scholarships, grants, loans, and employment available at the Office of Student Financial Aid (https://financialaid.wisc.edu) (333 East Campus Mall), scholarships and loans are available to qualified students in the College of Agricultural and Life Sciences.

**AGRICULTURAL AND LIFE SCIENCES SCHOLARSHIPS**

CALS has an extensive scholarship program. All CALS students must apply every year to be considered for a scholarship. One application allows consideration for any scholarships administered by the college. The application cycle runs from early November to early February every year. Selection of recipients is determined by the CALS Scholarships and Loans Committee.

The scholarship application is available through the Wisconsin Scholarship Hub (WiSH (https://wisc.academicworks.com)), which can be found through the Student Services tab in MyUW or through the Finances section of Student Center. Applicants must follow all prompts to ensure completion of the application process.

Scholarships with a financial need component require a current Free Application for Federal Student Aid (FAFSA (http://www.fafsa.ed.gov)) on file with the university.

**AGRICULTURAL AND LIFE SCIENCES LOANS**

Several short-term loan funds have been established for students in the college. Students may borrow money for up to six months at no interest, or very low interest, provided the money is repaid when due. Students must be able to provide a specific plan for loan repayment. No prior authorizations are needed, and the loan amount is available from the Bursar’s Office on the same day the application is approved. Applications for these short-term loans are available in the Office of Academic Affairs.

**STUDENT EMPLOYMENT**

Many College of Agricultural and Life Sciences students gain valuable experience by working part-time in jobs related to their interests. Working in a laboratory is often the first step for students who are interested in conducting their own research.

Some students are hired directly by specific departments as a result of the students’ interests and experience. Also, the university maintains a Student Job Center (http://jobcenter.wisc.edu) in the Office of Student Financial Aid, 333 East Campus Mall, to help students find part-time work.

**AGRICULTURAL AND LIFE SCIENCES STUDENT ORGANIZATIONS**

Agricultural and Life Sciences students will find many organizations and clubs to meet their professional interests. Student organizations provide a vehicle for students to gain leadership experience and develop professional skills. For more information see the Registered Student Organization (RSO) Directory (https://win.wisc.edu/organizations) and CALS Student Organizations and Clubs (http://www.cals.wisc.edu/academics/undergraduate-programs/get-involved/student-organization).

**PREPARATION FOR PROFESSIONAL CAREERS IN VETERINARY MEDICINE AND MEDICINE**

For information about preparation for professional careers in veterinary medicine and medicine, visit the Center for Pre-Health Advising (http://www.prehealth.wisc.edu).

**FACILITIES**

The College of Agricultural and Life Sciences has outstanding facilities for student housing, instruction, and research.

The college operates one residence hall, Jorns Hall. Those interested in this housing option should call 608-262-2270 or visit FISC Housing (http://fisc.cals.wisc.edu/housing).

Staff and students also make extensive use of off-campus sites such as the University Arboretum and 13 Agricultural Research Stations located throughout the state. The college includes many specialized instructional and research facilities. On-campus facilities include a livestock laboratory, instructional greenhouses, a number of instructional computer labs, and the Biotechnology, Microbial Sciences, and Biochemistry buildings.

The Steenbock Memorial Library (http://steenbock.library.wisc.edu) serves the College of Agricultural and Life Sciences with a collection of more than 600,000 books, bound journals, and government publications, and a variety of seating and study rooms for individual and group use. The library operates a public-access computer facility with a wide range of hardware and software. The building is a memorial to biochemist Harry Steenbock for his outstanding contributions to Wisconsin and to the health of humanity. Steenbock Library has received awards for its design and for its service to students, faculty, and academic staff. Steenbock Library staff help students and faculty locate reference material for their research through workshops on using the library and through personal assistance with search strategies.

**DEAN’S LIST**

Students who achieve at a high level academically are recognized by the dean. Selections to the Dean’s List are announced at the close of each semester. The student’s achievement for only the single semester is considered and is noted on the transcript. To be placed on the Dean’s List, a student must have received a grade of A, AB, B, BC, C, D, F), regardless of overall grade point average, and must not have received a grade of F or an Incomplete for any course, or a U (for a pass/fail course) or an N (for Credit/No Credit graded course that was not passed).
CRITERIA FOR "GRADUATED WITH DISTINCTION" AND "GRADUATED WITH HIGHEST DISTINCTION"

Students who have a cumulative GPA that places them in the top 20 percent of the graduating class in the college will graduate with "Distinction"; those in the upper 5 percent, with "Highest Distinction." These students must have at least 60 credits on the Madison campus. The notations on the student's transcript will read "Graduated with Distinction" or "Graduated with Highest Distinction." The registrar determines which students meet these criteria.

DISTINCTIVE SCHOLASTIC ACHIEVEMENT

A preliminary list of those degree candidates who may be eligible for Graduation with Distinction is prepared by the registrar prior to commencement. These students are eligible to wear a cardinal stole with their caps and gowns at commencement. Inclusion on the Distinctive Scholastic Achievement list does not guarantee Graduation with Distinction, which is determined after final grades are awarded.

HONORS PROGRAM

The CALS Honors Program allows talented and highly motivated students to continue challenging themselves in the classroom and beyond. The objective of the Honors Program is to help students develop critical thinking and problem solving abilities through specialized courses and to provide students the challenge of designing, conducting, and reporting research in collaboration with faculty from one of the world's leading research institutions.

HONORS

CALS has two different avenues to earn an Honors degree designation. Students may complete either based on their interests and goals. Students are not allowed to complete both types of honors. In either option, a student must successfully complete a Senior Honors Thesis approved by the research mentor or committee.


Students engage in the university's great research tradition through the completion of two research projects: an introductory project and a senior thesis project. Students identify a faculty mentor to oversee their research efforts and support their progression through the program. In addition to the hands-on research experience, students are required to enroll in coursework directed at furthering their knowledge in quality and ethical scientific discovery. Students who successfully complete Honors in Research [http://guide.wisc.edu/undergraduate/agricultural-life-sciences/college-wide/college-agricultural-life-sciences-honors] will receive an Honors designation on their diploma.

Honors in the Major [https://cals.wisc.edu/academics/undergraduate-students/outside-the-classroom/honors-program/honors-in-the-major]

Students complete a specified number of Honors credits in a designated set of courses to gain advanced knowledge and inquiry within their major field of interest. A limited number of CALS majors offer this program option; more information is located on the Requirements tab for the major. Students who successfully complete Honors in the Major will receive an Honors designation on their transcript.

For complete information contact the Office of Academic Affairs, 116 Agricultural Hall, 608-262-3003.