Students curious to discover how our living world works and how they can improve it—from the smallest microbe to ecosystem-wide weather patterns—will find a home in the College of Agricultural and Life Sciences. We explore global questions in these areas:

- Health and nutrition
- Food and agriculture
- Biological sciences
- Sustainability, natural resources, and the environment
- Business, communication, and society in agriculture and bioscience

Our students are passionate about using science to improve the world, and our programs encourage students to pursue their passions in the classroom and beyond. We bring together students, faculty, and staff from diverse backgrounds to create an enriching and welcoming culture that produces socially aware graduates who will make an impact locally and globally. We promote working across disciplines; half of our students double-major or complete at least one certificate in an average of four years.

Our signature undergraduate experiences encourage students to build community through a first-year seminar; gain global experience through study abroad, internships, and courses; and apply what they learn through a senior-level capstone course. With more than 20 student organizations, CALS students can build their professional networks early.

The critical thinking, research, and communication skills our students gain lead them to careers in a wide variety of industries and public service—including biotechnology, healthcare, food, and agriculture—and prepare them well for graduate and professional studies at top-ranked institutions.

Our faculty are involved in all aspects of student education, including teaching in classrooms, hosting research opportunities in labs, leading study abroad experiences, and providing professional mentorship.

To enhance our bachelor of science degrees for top students, CALS offers honors programs in research and in many of our majors. As evidence of our strong community, we award over $1,000,000 in scholarships supported by alumni and friends eager to give new students the same positive experiences they enjoyed.

We are growing the future through a better understanding of living things. Explore our majors to learn more.

**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.

- Agricultural and Applied Economics, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/agricultural-applied-economics/agricultural-applied-economics-bs/)
- 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/)
- Biological Systems Engineering, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/biological-systems-engineering/biological-systems-engineering-bs/)
- Biology, B.S. (CALS) (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/bacteriology/biology-bs/)
- Development Economics, Certificate (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/agricultural-applied-economics/development-economics-certificate/)
- 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/)
- Food Science, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/food-science/food-science-bs/)
- Forest Science, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/forest-wildlife-ecology/forest-science-bs/)
- Genetics and Genomics, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/genetics/genetics-genomics-bs/)
• Global Health, Certificate (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/nutritional-sciences/global-health-certificate/)
• 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/college-wide/individual-major-bs/)
• Landscape Architecture, BSLA (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/college-wide/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/)
• Science of Fermented Food and Beverages, Certificate (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/food-science/science-fermented-food-beverages-certificate/)
• Soil Science, B.S. (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/soil-science/soil-science-bs/)

TRANSCATIONAL 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 visit the TAOS website (https://cals.wisc.edu/academics/undergraduate-students/advising/transitional-advising-outreach-services/).

DEAN ON CALL

Dean on Call is available in 116 Agricultural Hall from noon–3:30 p.m., Monday through Friday during the academic year and Monday, Wednesday, and Friday 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/).

ENTERING THE COLLEGE

ADMISSION

Information on admission to the university as a freshman, transfer, or international student is available through the UW-Madison 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 CALS Office of Academic Affairs (http://www.cals.wisc.edu/academics/) at 608-262-3003.

First-Year Summer Start (http://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 (CALS) from other schools and colleges at UW–Madison 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 with questions should contact the CALS Office of Academic Affairs, 116 Agricultural Hall, 1450 Linden Drive, Madison, WI 53706; 608-262-3003.

TRANSFER FROM ANOTHER UW-SYSTEM CAMPUS

Transfer students interested in the College of Agricultural and Life Sciences must apply for admission through the UW-Madison Office of Admissions and Recruitment (https://admissions.wisc.edu/apply-as-a-transfer/). Transfer students must complete all CALS degree requirements, including the completion of a minimum of 30 credits in residence at UW-Madison.

Transfer credits are evaluated by the UW–Madison Registrar’s Office 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 in advance. See the UW-Madison Registrar’s website (https://registrar.wisc.edu/transfer-your-credit-to-uw-madison/) for details and policies.

TRANSFER FROM ANOTHER UW-MADISON COLLEGE/SCHOOL

Students may 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 wishing to transfer into the College of Agricultural and Life Sciences must also meet with the intended CALS major advisor and be accepted into the major.

Students who wish to transfer to the College of Agricultural and Life Sciences and do not meet the above criteria should meet with a Dean-on-Call in the Office of Academic Affairs to discuss their situation. Exceptions are made on a case-by-case basis, particularly in situations where a student has earned 86 credits significantly before their fourth year of college.

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 UW-Madison Office of the Registrar determines when transfers may be completed; this window generally is open through the twelfth week of classes. Consult the Office of Academic Affairs (http://www.cals.wisc.edu/academics/) website or email (academicaffairs@cals.wisc.edu) for details.

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. QuickStart (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://guide.wisc.edu/undergraduate/agricultural-life-sciences/college-wide/college-agricultural-life-sciences-honors/). 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 get involved and practice leadership, including student organizations (over 30 in CALS and 1,000 campus-wide) 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 (https://morgridge.wisc.edu/) for opportunities.
9. Facilities (https://cals.wisc.edu/about-cals/visit-cals/). CALS has outstanding facilities for instruction, research, and exploration. From the Allen Centennial Garden with the former dean’s residence to thirteen 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.

**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/#requirementsforundergraduatetext) 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.

<table>
<thead>
<tr>
<th>Residency</th>
<th>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.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality of Work</td>
<td>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.</td>
</tr>
</tbody>
</table>

**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. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies, Science, and Capstone), 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>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>
<td></td>
<td></td>
</tr>
<tr>
<td>Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Year Seminar (p. 4)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>International Studies (p. 4)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Physical Science Fundamentals</td>
<td>4-5</td>
<td></td>
</tr>
<tr>
<td>CHEM 103 or CHEM 108 or CHEM 109</td>
<td>General Chemistry I or Chemistry in Our World or Advanced General Chemistry</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 “Major Requirements”) (p. 4)</td>
<td></td>
<td></td>
</tr>
</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 enrolls 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/).

**APPROVED FIRST-YEAR SEMINAR COURSES**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFROAMER 271</td>
<td>Selected Topics in African American Culture</td>
<td>3</td>
</tr>
<tr>
<td>BIOCHEM 100</td>
<td>Biochemistry Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td>BSE 170</td>
<td>Product Design Practicum</td>
<td>2</td>
</tr>
<tr>
<td>COUN PSY 115</td>
<td>Human Resources Development: Educational Effectiveness</td>
<td>1</td>
</tr>
<tr>
<td>COUN PSY 125</td>
<td>The Wisconsin Experience Seminar</td>
<td>1</td>
</tr>
<tr>
<td>DY SCI 272</td>
<td>Pre-Capstone Seminar</td>
<td>1</td>
</tr>
<tr>
<td>ENVIR ST 117</td>
<td>GreenHouse Roots Seminar</td>
<td>1</td>
</tr>
<tr>
<td>F&amp;W ECOL 101</td>
<td>Orientation to Wildlife Ecology</td>
<td>1</td>
</tr>
<tr>
<td>GENETICS 155</td>
<td>Freshman Seminar in Genetics</td>
<td>1</td>
</tr>
<tr>
<td>INTEGSCI 100</td>
<td>Exploring Biology</td>
<td>2</td>
</tr>
<tr>
<td>INTEGSCI 110</td>
<td>BioHouse Seminar: Biology for the 21st Century</td>
<td>1</td>
</tr>
<tr>
<td>INTEGSCI 140</td>
<td>Exploring Service in STEM</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>
<tr>
<td>LSC 155</td>
<td>First-Year Seminar in Science Communication</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/

**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 UNLESS OTHERWISE NOTED)

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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>AN SCI/DY SCI 370</td>
<td>Livestock Production and Health in Agricultural Development</td>
<td>3</td>
</tr>
<tr>
<td>C&amp;E SOC/SOC 341</td>
<td>Labor in Global Food Systems</td>
<td>1</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>CSCS 500</td>
<td>Global Health and Communities: From Research to Praxis</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/ ZOLOGY 371</td>
<td>Medical Entomology</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST 100</td>
<td>Forests of the World</td>
<td>1</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST/ ZOLOGY 360</td>
<td>Extinction of Species</td>
<td>3</td>
</tr>
<tr>
<td>HORT 370</td>
<td>World Vegetable Crops</td>
<td>3</td>
</tr>
<tr>
<td>LSC 251</td>
<td>Science, Media and Society</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>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>DY SCI/AN 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>
</tbody>
</table>

The following study abroad courses fulfill the international studies requirement, but will require manual modification of a student’s degree audit through completion of a simple DARS Update Form. See https://cals.wisc.edu/academics/undergraduate-students/cals-international-studies-requirement/\/. Only the specific course numbers and titles listed are approved to meet the CALS International Studies requirement.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<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 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>MICROBIO 375 &amp; NUTR SCI/INTER-AG 421</td>
<td>Special Topics and Global Health Field Experience (Microbiology of Northern Thailand and Global Health Field Experience, Thailand)</td>
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<tr>
<td>MICROBIO 399</td>
<td>Coordinative Internship/Cooperative Education (UW Microbiology International Internships (Thailand))</td>
<td>3</td>
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</tbody>
</table>

Approved for enrollments Summer 2020 and later.
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. Capstone courses are approved by the college for each major.

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://uwddc.library.wisc.edu/minds/index.shtml/) or similar).

DEGREES OFFERED

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

B.S. DEGREE

B.S.–AGRICULTURAL BUSINESS MANAGEMENT (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/agricultural-applied-economics/agricultural-business-management-bs/)
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/)

Four of the college’s majors have specialized B.S. degree programs, as listed above. The general B.S. degree program provides a broad and general foundation for the other majors in the college.

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 for simultaneous majors or degrees be received prior to the student having earned 86 credits. More information is available below and via the Office of Academic Affairs (https://cals.wisc.edu/academics/).

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. Credits earned for the first degree will apply toward appropriate requirements for the second. However, students must take at least 30 additional credits, as noted above. Students with their first B.S. degree from the college must select a new major or degree program.
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 their 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; however, students must complete 15 unique credits in each major. 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 academic 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 on the CALS website (https://cals.wisc.edu/academics/undergraduate-students/academic-policies-forms/) and available from the Office of Academic Affairs, 116 Agricultural Hall.

EARNING TWO UNDERGRADUATE MAJORS SIMULTANEOUSLY
CALS permits undergraduates to pursue two CALS majors simultaneously. Both majors must be in the same degree program; two degrees must follow the policy outlined above. The following policies and procedures have been established for this program:

a. The student must complete an application form and 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 will note the completion of requirements for two or more majors.

EARNING A NON-CALS MAJOR WHILE COMPLETING A DEGREE PROGRAM IN THE COLLEGE OF AGRICULTURAL AND LIFE SCIENCES
The College of Letters & Science (L&S) and the School of Education permit undergraduates currently enrolled in the College of Agricultural and Life Sciences to complete certain additional undergraduate majors offered by L&S or the School of Education and have this 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 non-CALS 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 non-CALS major is not to substitute for any major in CALS.
3. The student must satisfy all requirements of the non-CALS major, both the requirements established by the department (i.e., certain courses) and those established by the other school/college (e.g. for L&S, 15 credits of advanced work in the major in residence at UW–Madison), but is not required to complete the other school/college’s degree requirements. The student must meet all CALS general course requirements and the degree program requirements, as well as all major field requirements for the CALS major.
4. Requests for substitutions or other modifications of the requirements of a given non-CALS major must be acted on by an academic dean of that school/college, in consultation with the Associate Dean for Academic Affairs in CALS, before enrollment in the course.

EARNING A GLOBAL HEALTH ADDITIONAL MAJOR WHILE COMPLETING A DEGREE PROGRAM IN ANOTHER SCHOOL/COLLEGE AT UW-MADISON
Students in another school/college at UW-Madison are eligible to declare a Global Health major if they have fewer than 86 credits toward graduation, receive permission from their home school/college, and maintain a primary major in the home school/college. The process for obtaining special permission to declare a Global Health major is dependent on the student’s home school/college. Students must also contact the Global Health major advising unit about the steps required to declare an additional major and fulfill all the Global Health major requirements.

RESOURCES

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 abroad 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. Professional staff advisors as well as faculty 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 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.

Many CALS students are interested in exploring professional careers in medicine, including veterinary medicine. For more information about preparing for health careers, visit the Center for Pre-Health Advising (http://www.prehealth.wisc.edu/).

CAREER SERVICES (HTTPS://CALS.WISC.EDU/ACADEMICS/UNDERGRADUATE-STUDENTS/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 employment 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.

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

STUDY ABROAD (HTTPS://CALS.WISC.EDU/ACADEMICS/UNDERGRADUATE-STUDENTS/STUDYABROAD/)

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 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, 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/), and several fulfill the CALS International Studies requirement (https://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext).

Study abroad allows students to enrich their education by experiencing other cultures and broadening their understanding of agricultural and life sciences outside the United States. CALS programs offer opportunities to study, intern in, and research topics such as food security and sustainable food systems, agriculture and nutrition, health care, environmental health, and climate change, among others. CALS students may also receive academic credit for participating in study abroad programs administered by UW–Madison’s International Academic Programs (IAP) office and Wisconsin School of Business’s International Programs office, and CALS Biological Systems Engineering students can participate in programs offered by the College of Engineering’s International Engineering Studies and Programs (IESP).

CALS Study Abroad programs vary widely in cost, so it is likely that there is a program for every budget. Sometimes studying abroad is no more expensive than studying on-campus, and at other times the cost can be higher. To supplement the budget for studying abroad, CALS offers scholarships (https://cals.wisc.edu/academics/undergraduate-students/studyabroad/cals-study-abroad-scholarships/) specifically for CALS study abroad students.

CALS Study Abroad, including student Peer Advisors, is located in the Office of Academic Affairs, 116 Agricultural Hall. Students are welcome to stop by during Drop-In Advising Hours (https://cals.wisc.edu/academics/undergraduate-students/studyabroad/study-abroad-advising/) for more information or contact us via email at studyabroad@cals.wisc.edu.

SCHOLARSHIPS AND 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 the day after the application is approved. Applications for these short-term loans are available in the CALS Office of Academic Affairs.

**STUDENT EMPLOYMENT**

Many CALS 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.

**STUDENT ORGANIZATIONS**

CALS 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/) in the Wisconsin Involvement Network (WIN) and CALS Student Organizations and Clubs (http://www.cals.wisc.edu/academics/undergraduate-programs/get-involved/student-organization/).

**HONORS**

**HONORS PROGRAM**

The CALS Honors Program allows highly motivated students to continue challenging themselves through research and coursework. 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.

Honors in Research (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/college-wide/college-agricultural-life-sciences-honors/) 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.

**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 achieved at least a 3.5 GPA or above for the semester’s study load of not less than 12 credits, on a regular grade basis (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 UW–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.