Recognizing its unique land-grant research and educational mission to serve Washington State and the global community, the College of Agricultural, Human, and Natural Resource Sciences is discovering and sharing knowledge through excellence in research, instruction, and statewide Extension programs. Students, scientists, and educators contribute to securing a safe, abundant food and fiber supply; promoting the well-being of individuals, families, and communities; enhancing the sustainability of agricultural and economic practices and the environment; and promoting stewardship of natural resources and ecological systems.

The College offers approximately 20 majors to prepare professionals for careers through departments including Animal Sciences; Apparel, Merchandising, Design, and Textiles; Crop and Soil Sciences; Economic Sciences; Entomology; Environment; Food Science; Horticulture; Human Development; and Plant Pathology. Students receive a solid foundation in the sciences with a technological grounding that enables them to explore and stay up-to-date with the relevant, dynamic fields of agricultural, human, economic, and natural resource sciences. All degree programs provide students with opportunities for hands-on interactions in their field, whether it's working with researchers in classrooms/labs or through internships and international study abroad programs.

Overall, the agricultural industry remains Washington's number one thriving economic industry and supports a vibrant job market. Programs in agriculture prepare students for a wide variety of careers in science; education; agriculture and food security; fruit and vegetable management; agricultural technology and production management; biotechnology; field crop management; turfgrass management; organic and sustainable agriculture; landscape, nursery, and greenhouse management; viticulture and enology; business and finance; economics; food processing; and sales and distribution of food products. In addition, programs offered through the School of the Environment prepare students for careers in earth sciences, environmental and ecosystem sciences; natural resource sciences. Graduates enter their profession as agricultural producers, land managers, agriculture teachers, food scientists, winemakers, or industry representatives for agriculture, natural resources, and retail operations. Students who earn graduate degrees follow scientific careers in research; teaching university classes; Extension education; and highly technical pursuits within industry and government organizations.

The College of Agricultural, Human, and Natural Resource Sciences also offers unique opportunities for students pursuing careers in veterinary medicine. Animal Sciences and Natural Resource Sciences both allow students to build a foundation for veterinary school and earn a baccalaureate degree simultaneously. Programs in the human sciences prepare students for positions as teachers of family and consumer sciences, human science and community agency managers, and directors of aging programs. Other careers include apparel design and merchandising, consumer services, or commercial food service. Students who graduate are prepared to teach in public schools, to work in adult education, and to administer and supervise preschool and child care centers. Those who earn advanced degrees fill positions in research, Extension, governmental agencies, foreign services, college teaching, and businesses around the world.
CROP SCIENCE
Entomology
Environmental Sciences
Food Science
Geology
Horticulture
Molecular Plant Sciences
Natural Resource Sciences
Plant Pathology
Prevention Science
Soil Science

Doctor of Philosophy
Agricultural Economics
Animal Sciences
Biological and Agricultural Engineering
Crop Science
Economics
Entomology
Environmental and Natural Resource Sciences
Food Science
Geology
Horticulture
Molecular Plant Sciences
Plant Pathology
Prevention Science
Soil Science

COLLEGE OF ARTS AND SCIENCES
Todd Butler, dean
Thompson Hall, Room 309
509-335-4581
https://cas.wsu.edu

The College of Arts and Sciences (CAS) fosters an open and inclusive environment where faculty and students seek to discover, to create, and to educate in service to our state, the nation, and the world. We are the big thinkers, asking bold questions that drive knowledge forward. We encourage an openness to unfamiliar ideas and collaboration across boundaries, and we share a commitment to lifelong learning and creative thinking. Our efforts advance the frontiers of knowledge and artistic expression, and are leading a reimagination of what WSU can achieve on our campuses and in the wider world.

Encompassing disciplines within the arts, humanities, social sciences, and the physical, natural, and life sciences, CAS academic programs provide students with a sound and challenging education where inquiry and teaching proceed in tandem, and which prepares them for a wide range of careers, further graduate and professional education, and—most importantly—rich and rewarding lives. Undergraduate and graduate degree programs within the college deliver multifaceted learning opportunities that include classroom instruction, seminars, labs, special projects, scholarship, and research. Together faculty and students pursue the learning demanded by our increasingly diverse, technologically sophisticated, and global society. The college provides leadership development opportunities through its student ambassador program and more than forty registered student organizations and promotes career-skills development through internships and other experiential learning options. Many undergraduate students conduct research and complete creative projects under the mentorship of a faculty member. Competitive grants are available through the college to support these activities. Undergraduate students planning to pursue advanced degrees are counseled by professional advisors and faculty mentors on programs of study and planning course selections that meet admission requirements for advanced study or professional schools. The college also provides academic preparation for human and animal healthcare-related fields through the School of Biological Sciences, and pre-law curricula through the School of Politics, Philosophy, and Public Affairs, and in departments and programs such as comparative ethnic studies, English, history, and sociology.

At the graduate level, the college offers numerous advanced degrees that further prepare students for successful professional and academic careers. Rigorous and intensive training enhances their disciplinary expertise and prepares them to take on leadership roles across the state and around the world. A number of CAS programs are externally accredited. For example, the doctoral program in clinical psychology is accredited by the American Psychological Association and the School of Music is a full member of the National Association of Schools of Music.

Sciences

Major scientific research areas in the college include shock physics, molecular and atomic interactions on surfaces, continuum mechanics, avian environmental physiology, regulation of cellular growth and differentiation, photosynthesis, mechanisms of chemical reactions, biological evolution and ecology, radiochemistry and environmental remediation, mathematical modeling of biological and physical processes, data analysis, reliability and fatigue studies, resource management, protein synthesis and export, chemotaxis, coevolution of plants and animals, and reproductive biology.

Humanities, Arts, and Social Sciences

CAS scholars in the arts, humanities, music, and social sciences are making significant contributions in the fields of environmental studies and peace and security; identifying the personal and sociopolitical factors that influence chronic diseases and other threats to health, including substance abuse, accidents, and high-risk behaviors; fostering mutual understanding and cooperation across cultures and nations; and building partnerships with diverse communities—from the cultures of the Pacific Rim to Native American and Latinx cultures closer to home.

Faculty

The faculty in the College of Arts and Sciences are skilled practitioners who have a passion for excellence in research and education. Many are nationally and internationally recognized for their expertise and have received prestigious honors and awards, including election to the American Association for the Advancement of Science, American Chemical Society, American Physical Society, and other professional organizations; fellowships with the Guggenheim Foundation, U.S. Fulbright program, National Endowment for the Humanities, American Council of Learned Societies; as well as national career development awards, National Institutes of Health Merit Awards, an Eli Lilly Award, and numerous state and national teaching awards. Faculty frequently serve on national review panels of granting agencies for instructional and research support and on editorial boards of international journals.

Interdisciplinary Commitment

Beyond its own degree programs, CAS provides a significant portion of the courses which fulfill the University Common Requirements for all WSU undergraduate students. The college also provides extensive foundational course work for students earning degrees in disciplines offered by other WSU colleges. CAS is the founder and sponsor of the WSU Mathematics Learning Center, which helps all university students succeed in attaining the math skills they will need to complete their programs of studies.

Additionally, CAS sponsors and oversees the Health Professions Student Center and the Pre-Law Resource Center, both of which serve all university students interested in pursuing careers in healthcare or the legal field, respectively.

Working in cooperation with the College of Education, CAS prepares teachers for all levels of educational work. Students preparing for teaching at the elementary, secondary, and college levels usually complete course work in their chosen subject-matter field within the College of Arts and Sciences. The specific requirements for obtaining K-12 teaching credentials are listed under the Department of Teaching and Learning in the College of Education.

At the graduate level, CAS offers joint degrees in materials science and engineering and through the independent interdisciplinary doctoral program.

Facilities and Resources

Hands-on opportunities and learning are enhanced by high-quality teaching and research laboratories, computer facilities, music and arts studios, museums, and
other infrastructure within the college. The Thomas S. Foley Institute for Public Policy and Public Service, Franceschi Microscopy and Imaging Center, School of Music Recording Studio, Nuclear Magnetic Resonance Center, Geoanalytical Laboratory, Ownbey Herbarium, Conner Natural History Museum, Language Learning Resource Center, Museum of Anthropology, Center for Digital Scholarship and Curation, Hudson Biological Reserve, Avery Microcomputer Lab, Center for Arts and Humanities, and Meyer's Point Environmental Field Station are just a few of the many facilities within the college. Joint academic and research programs with the Pacific Northwest National Laboratory provide access to leading scientists and additional state-of-the-art scientific technology. An expert technical services unit on the Pullman campus provides custom instrumentation and electronics design, construction, and repair.

Admission

The general requirements for admission to the College of Arts and Sciences are the same as those for Washington State University. Some academic units may have selective admissions criteria requiring demonstration of artistic achievement and/or completion of specific courses with specific grades prior to admission to the respective major; requirements can be found in degree descriptions in this catalog.

High school students should include the following subjects as preparation for work in the college: four years of English, two years of one foreign language, three years of mathematics, two years of science, and three years of social sciences; participation in music, art, and speech.

Requirements for Graduation

Graduation requirements for a bachelor's degree include the University Common Requirements plus additional College of Arts and Sciences requirements in arts and humanities, social sciences, and sciences. Each degree program has additional graduation requirements which are included in the departmental descriptions in this catalog.

Degrees

The College of Arts and Sciences offers programs of study leading to the following degrees:

Degree

Bachelor of Arts
  Anthropology
  Asian Studies
  Chemistry
  Comparative Ethnic Studies
  Criminal Justice and Criminology
  Digital Technology and Culture
  English
  Fine Arts
  Foreign Languages and Cultures (Chinese Language and Culture, French, Japanese, Spanish)
  History
  Human Biology
  Humanities
  Music
  Philosophy
  Political Science
  Public Affairs (Vancouver campus)
  Social Sciences
  Social Studies
  Sociology
  Women's Studies

Bachelor of Fine Arts
  Fine Arts

Bachelor of Music
  Music

Bachelor of Science
  Biology
  Chemistry
  Data Analytics
  Earth and Environmental Science
  Mathematics
  Physics
  Psychology
  Science (Bachelor of)
  Sociology
  Zoology

Master of Arts
  American Studies
  Anthropology
  Criminal Justice and Criminology
  English
  History
  Music
  Political Science
  Sociology

Master of Fine Arts
  Fine Arts

Master of Public Affairs
  Public Affairs (Vancouver campus)

Master of Science
  Biology
  Chemistry
  Environmental Science
  Geology
  Mathematics
  Molecular Plant Sciences
  Natural Resource Sciences
  Physics
  Plant Biology
  Plant Pathology
  Psychology
  Sociology

Doctor of Philosophy
  American Studies
  Anthropology
  Biology
  Chemistry
  English
  Environmental and Natural Resource Sciences
  Geology
  History
  Materials Science and Engineering (Interdisciplinary Program)
  Mathematics
  Molecular Plant Sciences
  Physics
  Plant Biology
  Plant Pathology
  Political Science
  Psychology
  Sociology

Some of the graduate degree programs are jointly supported by the College of Agricultural, Human, and Natural Resource Sciences and the Voiland College of Engineering and Architecture.
The Carson College of Business (CCB) is dedicated to world-class research, global learning, professional development, innovative teaching and learning, and the pursuit of excellence in all levels of business education. The college spans campuses across WSU with the largest campus in Pullman, a thriving Global campus, and urban campuses located in Everett, Vancouver, and the Tri-Cities area, as well as international partnerships and/or programs at the undergraduate or graduate level in Asia, Europe, and Latin America including Chile, China, France, Greece, Ireland, Italy, Korea, Spain, Switzerland, Tanzania, and Thailand.

The college conducts scholarly and applied research, and offers degree programs in a variety of business disciplines, supplementing face-to-face offerings through innovative online learning and international programs. Of note, the CCB is among the top two percent of business schools worldwide to be accredited by the Association to Advance Collegiate Schools of Business International (AACSB) at the baccalaureate, masters, and doctoral levels.

Through the Carson College’s interactive and collaborative classes, undergraduate business students develop a global business perspective, and gain skills in business data analytics, effective communication, team management, and professionalism that employers demand.

Through the International Experience Requirement (IER), students develop a global perspective through education abroad, internships abroad, and internationally-focused courses. In addition to learning about another culture and interacting with students from around the world, study abroad provides students with a lifetime of memories and experiences that will shape their future careers. The CCB’s undergraduate international business program accounts for more than 30 percent of WSU’s participation in study abroad activities and has been ranked in the top 25 nationally since 2005 by U.S. News & World Report. Expertise in managing and analyzing big data is critical in today’s businesses. Through the Analytics in the Major (AIM) initiative, students are introduced to data analytics in the first year upon admission into the College, and they build upon these skills through several data-intensive courses in their major.

An integral component to the Carson College’s undergraduate business degrees is the Carson Career Amplifier Program (CCAP). Required by all undergraduate students, this program is designed to walk students through the career development process and help them gain the experiences and skills that strengthen their interpersonal communication and professional skills so that they are career-ready by graduation. Innovation and business creation are essential for global competitiveness in the 21st century. Through the CCB’s annual business plan competition and national venture forums, students execute and deliver innovative ventures with real-world applications. The business plan competition provides undergraduates, graduate, and select high school students an opportunity to develop their ideas in interdisciplinary team settings, with experienced entrepreneurs, executives, and venture capitalists as mentors and judges.

Additionally, the CCB’s Carson Center for Student Success supports the academic, professional, and personal success of more than 3,000 undergraduate students. The Carson Center integrates academic advising, career development, business club involvement, international experience, and scholarships in a single location.

The CCB has offered a Master of Business Administration (MBA) for more than 60 years, with graduates occupying leadership positions in all fields of business. The Carson College’s online MBA and the online Executive MBA are ranked #20 among the U.S. News & World Report “Best Online MBA Programs” for 2021, and have been listed among the top 15% for nine straight years. In addition, the online MBA is among the top-ranked best online graduate business programs for Veterans for 2021 by U.S. News & World Report and Poets & Quants. Additional graduate program offerings include the Ph.D. in Business Administration. The Doctor of Philosophy in Business prepares its graduates for careers in teaching and research positions and places students at prestigious research institutions.

Areas of Study

The college departments—Accounting; Management, Information Systems, and Entrepreneurship; Finance and Management Science; Marketing and International Business—offer the following majors for the Bachelor of Arts in Business Administration degree:

**Accounting**

**Business Administration (Vancouver and Tri-Cities campuses only)**

**Entrepreneurship**

**Finance**

**International Business**

**Management**

**Management Information Systems**

**Marketing**

**Within the college, the School of Hospitality Business Management offers a specialized Bachelor of Arts in Hospitality Business Management degree with majors in:**

- **Hospitality Business Management**
- **Senior Living Management**
- **Wine and Beverage Business Management**

In addition to the online MBA programs, the college offers graduate work leading to the Doctor of Philosophy degree in Business Administration (all areas). The Master of Accounting is not accepting applications for the 2021-2022 academic year.

The doctor of philosophy in business administration program at WSU is an intensive program of coursework, research and intellectual interaction with faculty and other students that prepares graduates for careers as academic teachers and researchers. Students work closely with individual faculty members and are actively involved in joint research and publication projects throughout the program.

**Minors**

The CCB offers minors in business administration, human resource management, entrepreneurship, hospitality business management, senior living management, and wine and beverage business management. For specific information regarding minor requirements, see the business administration and hospitality business management sections of this catalog.

**Admission**

Admission on the Pullman campus is competitive and based on capacity. Students may apply for admission after their first year. Please see the following section for the minimum requirements to be eligible for admission. To be eligible to enroll in most 300-400-level business or HBM courses, business and hospitality business management students must have been admitted to their respective majors.

For specific information regarding the acceptability of college courses taken at other institutions in areas of study offered by the departments of the CCB, prospective students should communicate with the WSU Transfer Clearinghouse first, then with a CCB advisor.

**Diversity, Recruitment, and Retention**

The CCB is strongly committed to diversifying its student body as well as to improving its retention and graduation rates of underrepresented students. The college strives to create an environment that is supportive and inclusive and where all students can succeed academically and professionally.

**Business Degrees**

The curricula of the Carson College of Business lead to the following degrees:

**Pullman Campus**

- Bachelor of Arts, Business Administration
- Bachelor of Arts, Hospitality Business Management
- Master of Accounting (Not accepting applications for the 2021-2022 year.)
- Master of Business Administration (MBA)
- Master of Science in Business Administration (MS)
- Doctor of Philosophy, Business Administration

**Tri-Cities Campus**

- Bachelor of Arts, Business Administration
- Bachelor of Arts, Hospitality Business Management

**WSU Global Campus**

- Bachelor of Arts, Business Administration
- Bachelor of Arts, Hospitality Business Management
THE EDWARD R MURROW COLLEGE OF COMMUNICATION

Bruce Pinkleton, dean
Goertzien Hall, Room 101
509-335-8535
https://murrow.wsu.edu

Communication is central both to a democratic society and to membership in the global community. The faculty of The Edward R. Murrow College of Communication is dedicated to creating knowledge and facilitating learning about the production and interpretation of messages.

Combining programs that integrate fundamental communication domains, we are uniquely positioned to disseminate knowledge in a world where interpersonal and mediated communication converge.

We are dedicated to educating professional, ethical, and socially responsible citizens. Such an education shall provide students with an understanding of the social, political and ethical implications of communication. We are committed to developing in students a dedication to lifelong learning, communication skills, analytical and critical thinking skills, appreciation of diversity, and professional excellence. Our students learn through traditional teaching methods, innovative approaches to learning and application of professional skills and knowledge. In addition to undergraduate instruction, graduate education is an important component of our mission. Thus, we are also dedicated to guiding exceptional students’ development as teachers, researchers, and leading professionals.

Research is necessary to fully serve our constituencies including students, industry, policy makers, and the communication discipline. As active members of a Research I institution, we are dedicated to the pursuit of knowledge regarding the complex and multifaceted nature of communication. We pursue quality research that respects and is informed by diverse disciplines, perspectives, and methods and strive to contribute knowledge with both theoretical and practical implications. Because research enhances teaching, we aim to develop and maintain a mutually beneficial relationship between research and instruction.

As citizens, we endeavor to share our expertise and abilities with the broader community. We are committed to the advancement of the University and local, national, and international communities through service activities beyond research and instruction. Such activities are exemplified by faculty outreach to various community and industry groups, and by faculty participation in decision making at all levels of the University.

Named for its most illustrious alumnus, The Edward R. Murrow College of Communication is highly regarded nationwide by educators and professionals. It has won national and regional Emmys for student television productions, is recognized nationally for its television news and public relations sequences, and has a diverse faculty and student body in terms of both gender and race.

Study in the college provides students exposure to state-of-the-art computer-based technologies. The Edward R. Murrow College of Communication has writing labs, advanced video and graphics labs, a data analysis lab, a broadcast news lab, two television production studios, several video editing suites, radio/audio labs, and student-run radio and cable television stations.

The Edward R. Murrow College of Communication offers degree programs in Journalism and Media Production (Broadcast News; Broadcast Production; Media and Technology; Multimedia Journalism), and Strategic Communication (Advertising; Integrated Strategic Communication; Public Relations; Risk and Crisis Communication). The Murrow College offers the only comprehensive broadcast program in the state of Washington. The college is noted for cutting edge professional skill-building and theory, and is one of only a few programs in the nation that airs a daily, student-produced television newscast.

Admission

Undergraduate Students are admitted directly into their desired major in the College of Communication upon admission and enrollment at Washington State University.

To remain admitted in any major in the College of Communication, a student must complete all required courses and remain in good academic standing. COM 300 must be completed with a C or better, and only two attempts are allowed and a “W” is counted as an attempt. With an appeal to the department chair, a student may request to take COM 300 for a 3rd attempt during a summer session. All pre-requisites must be met in order to move through the Murrow curriculum. If a student fails to complete the required curriculum, they will not be able to remain admitted in the Murrow College. If a student is failing to complete academic requirements in a reasonable timeline, an advisor will work with the student to identify another academic path. Students must remain in good academic standing in order to graduate with a degree from the Murrow College.

Direct to Degree for Transfer Students

Transfer students bringing in 30 or more semester credits from an outside institution, and a 3.0 or higher transfer GPA will be directly admitted into the Murrow College. After consulting with a Murrow academic advisor, a student transferring with junior status (60 or more semester credits), with a 3.0 or higher transfer GPA, and who has completed COM 101 or COM 105 from another institution, will be allowed to take COM 300 in their first semester at WSU with all remaining 100 level required communication courses. All transfer students are required to consult with a Murrow academic advisor prior to enrollment at WSU.

Requirements for Graduation

Requirements for graduation in the College of Communication vary according to the major and the degree to be granted, as described in the departmental sections of this catalog.

Degrees

The College of Communication offers programs of study leading to the following degrees:

**Degree**

**Emphasis**

**Bachelor of Arts**
- Journalism and Media Production
- Broadcast News
- Broadcast Production
- Media and Technology
- Multimedia Journalism

**Strategic Communication**
- Advertising
- Integrated Strategic Communication
- Public Relations
- Risk and Crisis Communication

**Master of Arts**
- Communication
- Health Communication and Promotion
- Strategic Communication

**Doctor of Philosophy**
- Communication

COLLEGE OF EDUCATION

Michael S. Trevisan, dean
Cleveland Hall
509-335-1738
https://education.wsu.edu

The College of Education consists of the Department of Educational Leadership and Sport Management, the Department of Kinesiology and Educational Psychology, and the Department of Teaching and Learning. The college has both degree and certification programs. The College of Education offers degree programs, which prepare teachers for elementary school, secondary school, and college instruction; specialists and researchers in a variety of educational fields; administrators for schools, colleges, and universities; and sport-related specialists for private and community agencies. The college also provides professional training in kinesiology and athletic training. It offers a variety of educational services to local school systems.

At the baccalaureate level, the University Common Requirements (UCORE) provide a foundation for professional work in the College of Education through
Degrees

Degrees offered in the College of Education are as follows:

**Degree** | **Academic Area or Emphasis**
--- | ---
Bachelor of Arts | Teaching and Learning
| Educational Leadership and Sport Management
Bachelor of Science | Kinesiology and Educational Psychology
| Kinesiology and Educational Psychology
| Sports Medicine (part of the Master in Athletic Training degree program)
Master of Arts | Curriculum and Instruction
| Educational Leadership
| Educational Psychology
| Language, Literacy, and Technology Education
| Special Education
| Sport Management
Master of Science | Kinesiology
Master of Education | Curriculum and Instruction
| Educational Leadership
| Educational Psychology
| Language, Literacy, and Technology Education
| Special Education
| Sport Management
Master in Athletic Training | (5-year program, which includes BS in Sports Medicine)
Master in Teaching | Elementary Education
| Secondary Education
Doctor of Education | Educational Leadership (K-12)
Doctor of Philosophy | Counseling Psychology (inactive)
| Cultural Studies and Social Thought in Education

The mission of the certification programs in the College of Education is to furnish intensive preparation for persons who serve or aspire to serve in teaching, supervisory, special services, or administrative fields at all levels of education as well as in related areas of professional services. Candidates for certification must demonstrate knowledge and competencies at qualified levels of professional practice.

Graduate programs in the College of Education offer advanced course work and field experience in education and human services. Certification in administration is available at the graduate level. Doctoral programs focus on preparation of school administrators as well as teacher educators and educational researchers. Graduate programs stress scholarship as a basis for all professional endeavors.

The College of Education is a member of the American Association of Colleges for Teacher Education and the University Council on Educational Administration. The athletic training program is accredited by the Commission on Accreditation of Athletic Training Education.

The College of Education also functions as a service institution for schools and communities in the state of Washington. Applied research services are provided to education and health-related agencies throughout the United States and internationally. Services of faculty are available for consultant purposes, school studies, professional development programs, school seminars, and community conferences in the departmental specialties.

The Voiland College of Engineering and Architecture provides instruction, research, and public service in various engineering disciplines, architecture, construction management, computer science, and materials science. The college offers several engineering degrees including bioengineering, chemical engineering, civil engineering, computer engineering, construction engineering, electrical engineering, materials science and engineering, mechanical engineering, and software engineering. The School of Design and Construction offers degrees in architecture, interior design, landscape architecture, and construction management. The Ph.D. in materials science is offered through an interdisciplinary program through the Voiland College of Engineering and Architecture and the College of Arts and Sciences. Online master's degrees are offered in electrical power engineering, engineering and technology management, and software engineering.

The college's undergraduate degree programs prepare graduates for both professional careers and advanced study and are known for their practical, hands-on components, coupled with a strong foundation of basic principles. The college's programs use formal classroom instruction, coupled with individual and group projects, seminars, and individually directed studies to prepare students to develop solutions that are technically, socially, and economically appropriate. Many students also gain work experience in their fields of interest through employment on college research projects or internships in industry.

The college offers undergraduate degree programs of sufficient breadth to enable its graduates to choose employment from a large number of specialties within their general fields. Opportunities for specialization are made available to qualified students through graduate programs in the various schools and departments.

Faculty, graduate students, and staff in the college perform basic and applied research addressing problems of state, national, and international importance. Research projects are designed to enhance economically, ecologically, and culturally sound use of our material resources and to promote well-balanced industrial and professional development. Research is an integral part of graduate degree programs, providing graduate project topics and opportunities for graduate student interactions with outside professionals. The college's research also strengthens its undergraduate programs by involving undergraduate students in relevant creative exploration and by keeping undergraduate course content current with the latest research developments.

The college provides important educational services to industries, professions, and the general public. Short courses, conferences, and workshops taught by college faculty produce valuable interactions among professionals and deliver current technical information to these audiences. Faculty members of the college also serve as editors, authors, and reviewers for professional journals serving the nation and the world.

Students majoring in degrees offered by the Voiland College of Engineering and Architecture are guided in selection of courses in arts and humanities, social sciences, diversity, and communication to University Common Requirements (UCORE) consistent with the needs of the major. Students are encouraged to take UCORE courses concurrently with courses in the major to facilitate effective integration of subjects for practical application. Students planning to transfer to Washington State University after completing general education requirements at other institutions should obtain sample schedules of studies for their proposed major at WSU to be familiar with specific requirements for that major.

Additional information regarding the Voiland College of Engineering and Architecture is available online at [https://vcea.wsu.edu](https://vcea.wsu.edu).
Engineering

Engineering practice is based on sound fundamental and practical knowledge of mathematics, the sciences, and liberal arts. Basic sciences and mathematics form the foundation on which engineering science and engineering design courses are built. Engineering courses prepare students to solve problems in society by quantitatively analyzing alternatives and making decisions guided by economics and an awareness of social and ethical issues.

The established undergraduate engineering programs offered by the college are accredited by the Engineering Accreditation Commission of ABET, http://www.abet.org.

Registration as a professional engineer, which is granted by each individual state, is required for many types of positions. The professional curricula in engineering at Washington State University are designed to prepare students to pursue a professional engineering license, starting with the Fundamentals of Engineering (FE) Examination.

Seniors in accredited engineering programs of the Voiland College of Engineering and Architecture are encouraged (and sometimes required) to take the FE Examination toward professional registration during their final academic year.

The graduate degrees in engineering, listed previously, are offered at the master’s and doctoral levels. Students desiring graduate degrees in areas not listed may arrange with the program of interest to pursue a Master of Science in Engineering or Doctor of Philosophy in Engineering Science, allowing their programs of study to be designed for their particular needs and interests. Admission to engineering graduate programs is open to qualified students with a recognized degree in engineering, mathematics, a physical science, or a biological science. Additional information about specific areas of active research may be obtained by contacting the Associate Dean for Research or the appropriate department chair or school director.

Strong supporting courses are available from Mathematics and Statistics, Physics and Astronomy, Chemistry, and Biological Sciences. The graduate programs are also supported by many excellent University facilities such as the Water Research Center, Laboratory for Atmospheric Research, Composite Materials and Engineering Laboratory, Electron Microscopy Center, Power Systems Engineering Research Center, Energy Systems Innovations Center, Center for Programs in Environmental Research, Integrated Design Experience, Institute for Sustainable Design, Bioengineering Research Center, Center for Materials Research, Smart Environments Research Center, Center for Asphalt Technology, Sports Science Laboratory, and Washington State Transportation Research Center.

Computer Science

Computer science is the scientific foundation for computing, with roots in mathematics, the sciences, and engineering. Computer science encompasses the theory and techniques by which information is represented, processed, stored, and communicated. It deals particularly with the theory of algorithms and the step-by-step procedures for creating software to solve a problem or accomplish some goal. Students study computer software and hardware systems for efficient solution to practical problems. The Bachelor of Science in Computer Science, offered through the School of Electrical Engineering and Computer Science, the School of Engineering and Applied Sciences (Tri-Cities), and the School of Engineering and Computer Science (Vancouver) is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Curricular specializations available include computer engineering, databases, distributed computing, networks, network security, operating systems, and software engineering.

The Bachelor of Arts in Computer Science emphasizes breadth by requiring expertise in computer science and another area. The latter is accomplished through the requirements of a formal minor. The degree is accredited by the Computing Accreditation Commission of ABET, http://www.abet.org.

Design and Construction

The School of Design and Construction offers programs of study in architecture, interior design, landscape architecture, and construction management. Practice in these fields relies on studies of the arts and humanities as well as the sciences and technologies. Courses are designed to provide the breadth and depth of knowledge necessary to respond to the environmental and cultural forces that continually shape the decision-making processes associated with each field.

Programs of study in the school lead to the following degrees: a Bachelor of Science in Architectural Studies (a four-year degree) followed by a 1.5, 2.5, or 3.5 year Master of Architecture degree that is accredited by the National Architectural Accreditation Board (NAAB), a Bachelor of Science in Construction Management (a four-year degree) that is accredited by the American Council for Construction Education (ACCE), a Bachelor of Arts in Interior Design accredited by the Council for Interior Design Accreditation (CIDA), and a Bachelor of Landscape Architecture accredited by the Landscape Architecture Accreditation Board (LAAB). The school also offers a Master of Arts in Interior Design and a Master of Science in Landscape Architecture.

Undergraduate Admission

When admitted to Washington State University, students are typically assigned advisors in their desired major. Students may be admitted to a major in the college by upon demonstrating that they are calculus-ready or by completing any departmental-approved alternative pathway, and by making their intention known to the department offering the major. See vcca.wsu.edu/directadmit.

The departmental section of the catalog lists admission requirements as well as information about requirements to remain in good standing in the major. Prospective students are welcome to contact the department administering their choice of majors to discuss their readiness for the major and to determine if other preparation is warranted.

Degrees

Degrees offered in the Voiland College of Engineering and Architecture at the Pullman campus are listed below (exceptions are listed in parentheses):

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>Computer Science (also Tri-Cities) Interior Design</td>
</tr>
<tr>
<td>Bachelor of Landscape Architecture</td>
<td>Landscape Architecture</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Architectural Studies Bioengineering Chemical Engineering Civil Engineering (also Tri-Cities) Computer Engineering Computer Science (also Tri-Cities, Vancouver) Construction Engineering Construction Management Electrical Engineering (also Bremerton, Everett, Tri-Cities, Vancouver) Materials Science and Engineering Mechanical Engineering (also Bremerton, Everett, Tri-Cities, Vancouver) Software Engineering (also Everett)</td>
</tr>
<tr>
<td>Master of Architecture</td>
<td>Architecture</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>Interior Design</td>
</tr>
<tr>
<td>Master of Engineering</td>
<td>Civil Engineering</td>
</tr>
<tr>
<td>Master of Engineering and Technology Management</td>
<td>Engineering and Technology Management (Spokane, Tri-Cities, Vancouver only)</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Biological and Agricultural Engineering Chemical Engineering Civil Engineering Computer Science (also Tri-Cities, Vancouver) Electrical Engineering (also Tri-Cities) Engineering Environmental Engineering (also Tri-Cities)</td>
</tr>
</tbody>
</table>
The Elson S. Floyd College of Medicine offers the following degree programs:

**Degree**

**Academic Area**

- Bachelor of Arts
  - Speech and Hearing Sciences
- Bachelor of Science
  - Nutrition and Exercise Physiology
- Master of Science
  - Coordinated Program in Dietetics, Nutrition, and Exercise Physiology
  - Nutrition and Exercise Physiology
  - Speech and Hearing Sciences
Undergraduate Programs

WSU College of Nursing's undergraduate programs are approved by the Washington State Nursing Care Quality Assurance Commission and are accredited by the Commission on Collegiate Nursing Education. Approximately 800 BSN and Registered Nurse students are enrolled in the baccalaureate nursing programs at the Health Sciences campus in Spokane, and at WSU campuses in the Tri-Cities and Vancouver and sites in Yakima and Walla Walla.

The BSN program is open to students beginning a nursing career. The curriculum consists primarily of 300-400-level courses and is four academic years in length. The first two years of the curriculum (lower-division component) are completed on the Pullman campus, at Eastern Washington University or Whitworth University, or at any institution offering courses equivalent to those taught at Washington State University. Courses are offered in Spokane, Yakima, and the Tri-Cities. Graduates are eligible to apply for licensure as Registered Nurses.

The RN-BSN (post-licensure) undergraduate program is open to Registered Nurses who completed an associate degree in nursing and who wish to obtain a baccalaureate degree in nursing. The RN-BSN courses (300-400-level courses) are provided at WSU campuses in Spokane, Tri-Cities, and Vancouver as well as in Yakima and Walla Walla.

Graduates may practice in a variety of settings, including hospitals, community health agencies, schools, long-term care facilities, occupational health programs, home health care, and community mental health centers.

Graduate Programs

The MN in Population Health (MN-PH) prepares graduates for an advanced practice nursing role in acute, outpatient and community settings. You may enter the program with a BSN or the RN-MN program as an RN with a bachelor's degree in another field. The MN-PH program also offers three graduate certificate options in nursing leadership, nursing education and public health.

The Doctor of Nursing Practice (DNP) post-baccalaureate program offers prospective students with a BSN in nursing the opportunity to earn a doctoral degree in one of three areas: Family Nurse Practitioner (DNP-FNP), Psychiatric Mental Health Nurse Practitioner (DNP-PMHN), or Population Health (DNP-PH). Graduates of the FNP and PMHN programs are eligible to complete a national certification examination leading to state licensure as Advanced Registered Nurse Practitioners. The post-master's DNP general plan program offers prospective students with a master's degree in nursing the opportunity to add expertise in research and leadership to their current practice or pursue new specialization as a DNP-FNP, DNP-PMHN, or DNP-PH.

The Ph.D. program in Nursing includes a core set of courses in nursing science, research, and theory guiding the student to conduct qualitative or quantitative inquiry. The Ph.D. program prepares students as nurse scientists, able to carry out independent research; and to serve as leaders in nursing education. Full or part-time plans of study are available. The Post-Baccalaureate to Ph.D. in Nursing allows students with a baccalaureate degree and a RN license to enter the Ph.D. program after two semesters of Master's level courses.

All MN, DNP, and Ph.D. graduate programs and courses are offered in hybrid delivery (requiring attendance at some on-campus courses and including the completion of some learning activities via live interactive videoconference and using internet-based course management software).

Professional Development

The Office of Professional Development at the WSU College of Nursing focuses on meeting specific learning needs of registered nurses in the community, state, and throughout the country. Cost-effective programs are made available to promote professional certification, licensure and re-licensure. The Office of Professional Development is an approved provider of continuing education by the Washington State Nurses Association (an accredited approver by the American Nurses Credentialing Center Commission on Accreditation) and by the Office of the Superintendent of Public Instruction in Washington. For more detailed information on programs offered visit https://nursing.wsu.edu.

Degrees

The degrees offered through the WSU College of Nursing are as follows:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>Generalized practice</td>
</tr>
<tr>
<td>Master of Nursing</td>
<td>Advanced Population Health</td>
</tr>
<tr>
<td>Doctor of Nursing Practice</td>
<td>Advanced Population Health</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Nursing</td>
</tr>
</tbody>
</table>

COLLEGE OF PHARMACY AND PHARMACEUTICAL SCIENCES

Mark Leid, dean
WSU Health Sciences Spokane Campus
Pharmaceutical & Biomedical Sciences Building, Room 120K
412 E. Spokane Falls Blvd.
Spokane, WA 99202
509-368-6700
https://pharmacy.wsu.edu/

Doctor of Pharmacy

The Doctor of Pharmacy (PharmD) schedule of studies involves four professional years. The first three professional years of the PharmD curriculum are delivered at the WSU Health Sciences campus in Spokane and the Pacific Northwest University of Health Sciences campus in Yakima. During your four years in
The College of Veterinary Medicine offers courses of study leading to the following degrees:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Veterinary Medicine</td>
<td>Veterinary Medicine</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Biochemistry, Genetics &amp; Cell Biology, Microbiology, Neuroscience</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Molecular Biosciences, Neuroscience</td>
</tr>
</tbody>
</table>

Faculty and curricula within the College of Veterinary Medicine provide a challenging, hands-on education for students in the life and biomedical sciences. Undergraduate, professional, and graduate degree programs within the college include classroom instruction, seminars, special projects, and research opportunities, which together provide the education needed to meet society's needs.

Four undergraduate majors are housed in the College of Veterinary Medicine - Biochemistry, Genetics & Cell Biology, Microbiology, and Neuroscience. Graduating students choose to pursue many different career paths after graduation such as human or veterinary health professions, research careers, K-12 education, public health, and other careers that rely on a solid foundation of knowledge and skills in basic and applied biomedical sciences. The benefits of being a major in these programs include: preparation for postbaccalaureate professional or graduate education, research opportunities with WSU faculty members beginning the freshman year, academic scholarships, and faculty advising for students.

Graduate students are prepared for exciting careers in life and health sciences by engaging in cutting-edge research in many areas, including regulation of cellular growth and differentiation, genetic engineering, chromosome biology, protein synthesis and export, repair of DNA, cancer cell biology, mechanism of muscle contraction, chemotaxis, reproductive biology, immunology, infectious diseases of humans and animals, cellular and systems neurosciences, and global health. In addition to requirements unique to each degree granting program, graduate students participate in interdisciplinary training and professional development opportunities sponsored by the integrated Program in Biomedical Sciences (iPBS). There are also combined graduate degree and clinical residency or pathology residency programs administered through the Departments of Veterinary Clinical Sciences and Veterinary Microbiology and Pathology, respectively, as well as investigator-initiated programs with selected individuals.

The Doctor of Veterinary Medicine (DVM) curriculum of the College of Veterinary Medicine prepares students for positions in many areas of veterinary medicine, e.g., private practice, federal and state disease regulatory programs such as the USDA and CDC, industry, teaching, research, and military services. DVM students may also engage in research as part of their education. The DVM degree is recognized by all state and territorial licensing boards, as well as those in foreign countries, and is fully accredited. Complete information on DVM admission and program requirements may be found in this catalog under departmental listings and on our website.

Many of the college's faculty have attained national and international reputations and have received numerous honors and awards. These include election to the National Academy of Medicine and Washington State Academy of Sciences, Fellows of the AAAS, state and national teaching awards, national career development awards, and National Institutes of Health Merit Awards. Faculty frequently serve on national review panels of granting agencies for instructional and research support, as well as on editorial boards of international journals.

Degrees

The College of Veterinary Medicine offers courses of study leading to the following degrees:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Doctor of Veterinary Medicine</td>
<td>Veterinary Medicine</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Biochemistry, Genetics &amp; Cell Biology, Microbiology, Neuroscience</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Molecular Biosciences, Neuroscience</td>
</tr>
</tbody>
</table>

Graduate Programs

The mission of the College’s Pharmaceutical Sciences and Molecular Medicine Graduate Program is to prepare graduates for careers in academia, industry, and other public and private institutions dedicated to the promotion of human health. The PhD program provides graduate training in cancer biology, drug discovery, and translational pharmacology. Faculty in the program utilize multi-disciplinary and translational research approaches to (1) understand mechanisms of disease, (2) identify novel therapeutic targets, (3) develop novel treatments, and (4) optimize therapeutic regimens. The program strives to prepare you to become independent and creative problem solvers who will develop into leaders in your respective fields.

Students entering the program should have completed undergraduate work that includes biology, chemistry (including organic chemistry and biochemistry), mathematics (through calculus), and organ/mammalian physiology. Students working toward the PhD in Pharmaceutical Sciences and Molecular Medicine are expected to develop an area of research emphasis that is consistent with the capabilities and interests of the faculty.

A PharmD/PhD combined degree option is available to train clinician scientists. Interested students may apply for PhD admission in their second or third year of the PharmD program.

Applications for admission to the graduate program must include: official GRE scores, official transcripts for all college level work, three letters of recommendation, and a letter discussing career goals, previous research experience, and research interests. For students whose native language is not English, TOEFL scores are required. Inquiries should be emailed to: gradprograms@pharmacy.wsu.edu.

Degrees

The College of Pharmacy and Pharmaceutical Sciences offers the following degree programs:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Science</td>
<td>Pharmaceutical Sciences and Molecular Medicine</td>
</tr>
<tr>
<td>Doctor of Pharmacy</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Pharmaceutical Sciences and Molecular Medicine</td>
</tr>
</tbody>
</table>
Doctor of Philosophy
Molecular Biosciences
Neuroscience
Veterinary Science

Washington, Idaho, Montana, Utah (WIMU) Regional Program in Veterinary Medical Education

Washington State University's DVM education program is offered in a regional partnership with the University of Idaho, Montana State University, and Utah State University. This regional program involves instruction on the WSU campus, at Montana State University (Bozeman, MT), and at Utah State University (Logan, UT). Specific quotas of students to be admitted from Idaho, Montana, and Utah have been established under the terms of these agreements. In addition, the College of Veterinary Medicine at Washington State University is a partner in the Western Interstate Commission for Higher Education (WICHE) with the states of Arizona, Hawaii, New Mexico, Nevada, and Wyoming. Under the terms of this agreement, a student admitted to the college who is a resident from one of these states is sponsored financially by their home state and is thus subject only to the same fees as Washington resident students. Students must apply to their home state for WICHE certification in addition to applying to the College of Veterinary Medicine at Washington State University. Additional information regarding WICHE regional veterinary education may be obtained from the Executive Director, Western Interstate Commission for Higher Education, 3035 Center Green Dr., Suite 200, Boulder, CO 80301-2204, 303-541-0214, https://www.wiche.edu/.