The College of Agricultural, Human, and Natural Resource Sciences

André-Denis Wright, Dean
Hilbert Hall, Room 421
509-335-4561
https://cahnrs.wsu.edu

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 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, and wildlife ecology and conservation sciences. Graduates enter their profession as environmental scientists, 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.

Admission

The requirements for admission to the College of Agricultural, Human, and Natural Resource Sciences are the same as those for Washington State University. High school students planning to enroll in the college are urged to work closely with their counselors and with representatives from WSU in developing an appropriate background of high school courses in biological, physical, and social sciences, mathematics, and other elective areas.

Transfer Students

Most transfer students who have completed one year in another college or university ordinarily will have no difficulty in completing the requirements for one of the bachelor’s degrees in three additional years.

Students enrolled in other colleges or universities but planning to transfer to the College of Agricultural, Human, and Natural Resource Sciences should concentrate as much as possible on general education, science, and other departmental requirements normally scheduled during the first and second years, with particular attention to those subjects required for the intended majors. In addition, students should also contact a College of Agricultural, Human, and Natural Resource Sciences academic advisor in their area of interest.

Students at community colleges in the state should check to see whether there is an articulation agreement between their institution and the WSU program of interest in order to simplify the transition to WSU.

Requirements for Graduation

Requirements for graduation in the College of Agricultural, Human, and Natural Resource Sciences vary according to the major and the degree to be granted, as described in the departmental sections of this catalog. The student and the advisor jointly have the responsibility of selecting courses to fit the student’s native ability and professional interests, consistent with departmental and general education requirements. Students are encouraged to do more than satisfy the minimum requirements.

Agricultural, Human and Natural Resource Sciences Degrees

Degree | Academic Area
---|---
Bachelor of Science | CAHNRS Academic Programs
Agricultural and Food Systems | Crop and Soil Sciences
Animal Sciences | Animal Sciences
Economic Sciences | Economic Sciences
Earth and Environmental Sciences | Environment
Food Science | Food Science
Integrated Plant Sciences | CAHNRS Academic Programs
Bachelor of Arts | Crop and Soil Sciences
Apparel, Merchandising, Design, and Textiles | Horticulture
Human Development | Human Development
Master of Science | CAHNRS Academic Programs
Agriculture | Animal Sciences
Animal Sciences | Apparel, Merchandising, Design, and Textiles
Apparel, Merchandising, Design, and Textiles | Applied Economics
Applied Economics | Biological and Agricultural Engineering
Biological and Agricultural Engineering | Crop Science
Entomology | Entomology
Environmental Sciences | Environment
Food Science | Food Science

To see a complete listing of all undergraduate degrees, majors, and options within the major, as well as all undergraduate minors and certificates, please see the Achieving Academic Success section of this catalog.
The College of Arts and Sciences fosters an open and diverse environment where faculty and students engage in wide-ranging research as well as artistic creativity, humanistic inquiry, global learning, and community involvement. Covering disciplines within the arts, humanities, life sciences, physical sciences, and social sciences, undergraduate and graduate academic programs provide students with a broad and deep understanding of culture, society, and human behavior as well as with a sound and challenging education. The college is uniquely positioned to pursue liberal, broad-based learning, in which inquiry and teaching proceed as with a sound and challenging education. The College is the founder and sponsor of the Math Learning Center, helping all university students succeed in attaining the math skills they will need to complete their programs of study. It also oversees the Health Professions Student Center and the Pre-Law Resource Center, which serve all university students interested in pursuing these careers. Correspondingly, it provides health-related partnerships with diverse communities—from the cultures of the Pacific Rim to Native American and Latino cultures closer to home. Well-recognized scholars in the arts, humanities, and social sciences are making significant contributions in the fields of environmental studies and peace and security, or identifying the personal and sociopolitical factors that influence chronic diseases and other threats to health, including substance abuse, accidents, and high-risk behaviors, among many other exciting and innovative research endeavors. The College, in cooperation with the Department of Teaching and Learning, prepares teachers for all levels of educational work. Students preparing for teaching at the elementary, secondary, and college levels usually complete the course work in their chosen subject-matter field within the College of Arts and Sciences. The specific requirements for certification and teaching majors and minors for K-12 teachers are listed under the Department of Teaching and Learning. The College is the founder and sponsor of the Math Learning Center, helping all university students succeed in attaining the math skills they will need to complete their programs of study. It also oversees the Health Professions Student Center and the Pre-Law Resource Center, which serve all university students interested in pursuing these careers. Correspondingly, it provides health-related or pre-law curricula in units such as the School of Biological Sciences and the School of Politics, Philosophy, and Public Affairs or in departments and programs such as chemistry, comparative ethnic studies, English, history, philosophy, and sociology.

Admission

The general requirements for admission to the College of Arts and Sciences are the same as those for Washington State University. Some departments have selective admissions criteria requiring demonstration of artistic achievement and/or completion of specific courses with specific grades prior to certification of the respective major.

High school students should include the following subjects as preparation for work in the college: at least four years of English, at least 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 General Education Requirements (for students admitted prior to Fall 2012) or the University Common Requirements (admitted beginning Fall 2012) plus additional College of Arts and Sciences requirements in arts and humanities, social sciences, and sciences. Each academic department or 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:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>Anthropology, Asia, Chemistry, Languages, Cultures, and Race, Criminal Justice and Criminology, Digital Technology and Culture, English, Fine Arts, Foreign Languages and Cultures (Chinese Language and Culture, French, Japanese, Spanish), History, Humanities, Music, Philosophy, Political Science, Public Affairs (Vancouver campus), Social Sciences, Social Studies, Sociology, Women’s Studies</td>
</tr>
<tr>
<td>Bachelor of Fine Arts</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Bachelor of Music</td>
<td>Music</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Biological Sciences, Chemistry, Data Analytics, Earth and Environmental Science, Mathematics, Physics, Psychology, Science (Bachelor of), Zoology</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>American Studies, Anthropology, Criminal Justice and Criminology, English, Hispanic Studies, History, Music, Political Science, Sociology</td>
</tr>
<tr>
<td>Master of Fine Arts</td>
<td>Fine Arts</td>
</tr>
<tr>
<td>Master of Public Affairs</td>
<td>Public Affairs (Vancouver campus)</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Biological Sciences, Chemistry, Environmental Science, Geology, Mathematics, Molecular Plant Sciences, Natural Resource Sciences</td>
</tr>
</tbody>
</table>

## Doctor of Philosophy

<table>
<thead>
<tr>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>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 (Clinical and Experimental), Sociology</td>
</tr>
</tbody>
</table>

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.

## CARSON COLLEGE OF BUSINESS

**Larry W. (Chip) Hunter, Dean**  
**Todd Hall, Room 570**  
**509-335-3596**  
[https://business.wsu.edu](https://business.wsu.edu)

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, and in hospitality business management, 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.

The CCB is dedicated to helping students develop a global perspective and provides students with many opportunities to experience education abroad. 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.

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 undergraduate, 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.
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 #13 among the U.S. News & World Report “Best Online MBA Programs” for 2019, and have been listed among the top 15% for seven straight years. In addition, the Online MBA is among the top-ranked best online graduate business programs for Veterans for 2019 by U.S. News & World Report. 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.

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

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
- Wine and Beverage Business Management

In addition to the MBA, the college offers graduate work leading to the Doctor of Philosophy degree in Business Administration (all areas) and to the master of accounting.

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, 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 certification after their first year. Please see the following section for the minimum requirements to be eligible to apply for certification. To be eligible to enroll in most 300-400-level business or HBM courses, business and hospitality business management students must have certified in 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
  - Master of Business Administration (MBA)
  - 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

- **Vancouver Campus**
  - Bachelor of Arts, Business Administration
  - Bachelor of Arts, Hospitality Business Management

- **Everett Campus**
  - Bachelor of Arts, Hospitality Business Management

THE EDWARD R MURROW COLLEGE OF COMMUNICATION
Bruce Pinkleton, Dean
Goertzen 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.

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
  - Master of Business Administration (MBA)
  - 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

- **Vancouver Campus**
  - Bachelor of Arts, Business Administration
  - Bachelor of Arts, Hospitality Business Management

- **Everett Campus**
  - Bachelor of Arts, Hospitality Business Management
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; Multimedia Journalism), Communication and Society (Communication Technology; Risk and Crisis Communication; Science Communication), and Strategic Communication (Advertising; Integrated Strategic Communication; Public Relations). 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

To certify a major plan in communication, a student must meet the following minimum requirements: (1) Complete COM 101, 102, 105, and 138; (2) Attain sophomore standing (transfer students should have at least 15 graded credits from courses in residence at WSU); (3) Complete The Edward R. Murrow College of Communication Grammar Assessment administered by the College of Communication while enrolled in COM 138.

Certification is based on the number of available seats, applicant's cumulative WSU GPA, number of credits completed at the time of application, and applicant's performance on the Grammar Assessment. Transfer course grades will not be used in the calculation of the cumulative WSU GPA. Students transferring into the College with 55 or more hours should complete the certification requirements within one semester. All students should certify before earning 90 credit hours.

A student can be decertified from the Murrow College if their cumulative GPA falls below 2.0 or if they fail to pass a required course.

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:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Emphasis</th>
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</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>Communication Technology</td>
</tr>
<tr>
<td>Communication and Society</td>
<td>Risk and Crisis Communication</td>
</tr>
<tr>
<td>Journal and Media Production</td>
<td>Broadcast News</td>
</tr>
<tr>
<td>Strategic Communication</td>
<td>Broadcast Production</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>Communication Technology</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Communication Technology</td>
</tr>
</tbody>
</table>

Degrees offered in the College of Education are as follows:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area or Emphasis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>Teaching and Learning</td>
</tr>
<tr>
<td>Education</td>
<td>Educational Leadership and Sport Management</td>
</tr>
<tr>
<td>Sport Management</td>
<td></td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Kinesiology and Educational Psychology</td>
</tr>
<tr>
<td>Kinesiology</td>
<td></td>
</tr>
<tr>
<td>Sports Medicine (part of the Master in Athletic Training degree program)</td>
<td>Kinesiology and Educational Psychology</td>
</tr>
<tr>
<td>Master of Arts</td>
<td>Counseling (program closed)</td>
</tr>
<tr>
<td>Educational Leadership (K-12)</td>
<td></td>
</tr>
<tr>
<td>Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>English Language Learners (ELL)</td>
<td></td>
</tr>
<tr>
<td>Language, Literacy, and Technology Education</td>
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<tr>
<td>Special Education</td>
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<tr>
<td>Sport Management</td>
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</tbody>
</table>

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 sport science 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 offerings in the arts and humanities and in the social and natural sciences. Practical experiences are integrated with course work throughout professional preparation curricula.

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 doctoral program in counseling psychology (inactive status) is accredited by the American Psychological Association. 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 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.

### 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](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.

The computer courses are supported by programs in 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 Multiphase 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](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.

**Admission**

When admitted to Washington State University, students are typically assigned advisors in their desired major. Students may certify into a major after they have completed at least 24 semester credit hours and a prerequisite set of courses for the specific major.

Prospective students in engineering or computer science may apply for certification into the major of their choice upon completion of the applicable program requirements. Prospective students should contact the department or school administering their choice of majors to determine specific courses to be completed, application procedures, and application deadlines for certification. Factors considered in certification decisions include grades in science and math courses, grades in the major, overall grade point average, course repeats, professional experience and goals, and other indicators of the student's potential for successful completion of the curriculum. Students denied certification into an engineering program may appeal to the Dean of the V奥里兰德 College of Engineering and Architecture for a review to ensure that departmental procedures were followed.

**Degrees**

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

- **Bachelor of Arts**
  - Academic Area: Computer Science (also Tri-Cities)
  - Interior Design

- **Bachelor of Landscape Architecture**
  - Academic Area: Landscape Architecture

- **Bachelor of Science**
  - Academic Area: Architectural Studies, Bioengineering, Chemical Engineering, Civil Engineering (also Tri-Cities), Computer Engineering, Computer Science (also Tri-Cities, Vancouver), Construction Engineering, Construction Management, Data Analytics (also Everett, Global, Vancouver), Electrical Engineering (also Bremerton, Everett, Tri-Cities, Vancouver)

**Master of Architecture**

- Architecture

**Master of Arts**

- Interior Design

**Master of Engineering and Technology Management**

- Engineering and Technology Management (Spokane, Tri-Cities, Vancouver only)

**Master of Science**

- Biological and Agricultural Engineering
  - Chemical Engineering
  - Civil Engineering
  - Computer Science (also Tri-Cities, Vancouver)
  - Electrical Engineering (also Tri-Cities)
  - Environmental Engineering (also Tri-Cities)
  - Landscape Architecture
  - Materials Science and Engineering
  - Mechanical Engineering (also Tri-Cities, Vancouver)
  - Software Engineering (Global only)
  - Biological and Agricultural Engineering
  - Chemical Engineering
  - Civil Engineering
  - Computer Science (also Tri-Cities)
  - Electrical and Computer Engineering (also Tri-Cities)
  - Engineering Science
  - Materials Science and Engineering
  - (Interdisciplinary Program) Mechanical Engineering (also Tri-Cities)

**Doctor of Philosophy**

**HONORS COLLEGE**

M. Grant Norton, Dean  
Elmina White Honors Hall, Room 130  
509-335-4505  
http://honors.wsu.edu

The Honors College at Washington State University is one of the oldest and most respected honors colleges in the nation. The mission of the Honors College is to offer students an enriched, four-year core curriculum that satisfies University graduation requirements for general education. Students in the Honors College are not required to complete University Common Requirements (UCORE) because the Honors curriculum fulfills the graduation requirements. However, students who transfer to UCORE before graduation will be held to all University Common Requirements.

The Honors curriculum is designed to be compatible with any major. Through small, discussion-based classes taught by experienced and enthusiastic faculty dedicated to scholarship and learning, the Honors College helps students develop a lifelong love of learning, as well as skills in critical thinking, writing, public presentation, information literacy, and cultural competency. By completing an enriched series of small classes as well as a thesis, students acquire broad foundations of learning in the natural and social sciences, the arts and humanities, and cultures of the world. In addition, the Honors College emphasizes study of foreign languages and education abroad as premier vehicles for gaining key competencies for an increasingly globalized society and economy. The Honors College offers a number of advantageous opportunities for education abroad and requires demonstration of competency in a second spoken language before graduation.
Admission to the Honors College

High school students who have shown excellent scholastic ability, intellectual achievement, and motivation should apply directly to the Honors College after they have submitted their application to WSU. Current Washington State University students and transfer students who have achieved a college grade point average of at least 3.5 should contact Honors directly to apply. International students should contact Honors to find out how they can be considered for admission. For more information on the Honors College and its curriculum, please refer to the departmental section of this catalog and the Honors College website.

ELSON S. FLOYD COLLEGE OF MEDICINE

John Tomkowski, Founding Dean
WSU Health Sciences Spokane
Elson S. Floyd College of Medicine/SAC 503F
412 E. Spokane Falls Blvd.
Spokane, WA 99202
509-358-7944
https://medicine.wsu.edu/
medicne@wsu.edu

The Elson S. Floyd College of Medicine (ESFCOM) is Washington’s community-based medical school. Named after the University’s late president, Elson S. Floyd, the college was created to expand medical education and health care access in communities across the state of Washington. Under the direction of Dr. John Tomkowski, the ESFCOM is a unique resource for Washington, converging on solutions to the health care triple aim of improving the patient experience of care, keeping populations healthy, and decreasing the cost of care, all while improving the work life of healthcare providers. Through a culture based on valuing the individual, we are resourceful, agile, inventive and generous in serving the people of the state and beyond, to develop healthier populations through research, innovation, interprofessional education and patient-centered care.

The ESFCOM administration is located on the WSU Health Sciences Campus in Spokane with clinical campuses in Everett, Spokane, Tri-Cities, and Vancouver. Employing a community-based model in which students gain clinical experiences in hospital and health care settings near the four campus locations, the college emphasizes training in the kind of environments where students will ultimately settle to practice as physicians. All campuses foster active learning environments, interdisciplinary teaching, research, outreach, and clinical services.

The college consists of the departments of Biomedical Sciences, Medical Education and Clinical Sciences, Nutrition and Exercise Physiology, and Speech and Hearing Sciences.

The Department of Biomedical Sciences is the central hub of foundational, pre-clinical research at the ESFCOM. Faculty represent a diverse set of interests, ranging from cell biology to neuroscience and from cancer to sleep. Through partnerships with the greater University, the department provides research opportunities to graduate students enrolled in participating Ph.D. programs.

The Department of Medical Education and Clinical Sciences delivers the MD program, training medical students to be insightful and compassionate physicians. It immerses students in a variety of real-world and simulated learning environments that provide them with the clinical and behavioral competencies to be successful in the future practice of medicine. In addition to preparing students to care for individual patients, it readies them to take the lead in addressing community healthcare issues. Students learn to recognize problems in health care delivery, innovate solutions, and mobilize change that improves the health of entire populations. The department also delivers the Graduate Certificate in Leadership.

The Department of Nutrition and Exercise Physiology focuses on the effects of nutrition and physical activity on human health. The interdisciplinary program combines study in human nutrition, exercise physiology, and biological sciences, along with population, social, and psychological sciences. Opportunities for research and applied, practical experiences are the core of the instructional methods for both undergraduate and graduate students. The academic programs offer degrees at the B.S., M.S., and Ph.D. levels.

The Department of Speech and Hearing Sciences offers programs leading to a Bachelor of Arts in Speech and Hearing Sciences and a Master of Science in Speech and Hearing Sciences in speech-language pathology. Training in speech and hearing sciences through the bachelor’s degree prepares students for a range of careers in health professions, education and social services, among others. State and national clinical and educational licensure and certification require completion of the master’s degree. Graduate students are prepared as speech-language pathologists to provide direct and consultative services in medical and educational settings. The faculty’s research contributes to the evidence base of the profession, ensuring that future generations of professionals are prepared to provide the best possible health care.

Degrees

The Elson S. Floyd College of Medicine offers the following degree programs:

<table>
<thead>
<tr>
<th>Degree</th>
<th>Academic Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Arts</td>
<td>Speech and Hearing Sciences</td>
</tr>
<tr>
<td>Bachelor of Science</td>
<td>Nutrition and Exercise Physiology</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Coordinated Program in Dietetics, Nutrition, and Exercise Physiology</td>
</tr>
<tr>
<td>Doctor of Medicine</td>
<td>Nutrition and Exercise Physiology</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Medical Education and Clinical Sciences</td>
</tr>
</tbody>
</table>

COLLEGE OF NURSING

Mel Haberman, Interim Dean
WSU Spokane
412 E. Spokane Falls Blvd.
Spokane, WA 99202
509-324-7332
https://nursing.wsu.edu

The College of Nursing offers degrees in nursing at the baccalaureate (BSN), master’s (MN), and doctoral (Doctor of Nursing Practice and PhD) levels. The undergraduate program prepares students as generalists in the practice of nursing. The curriculum at the graduate level provides preparation for advanced, specialized nursing practice, leadership, education, and research.

Admission and application deadlines for all programs can be found at the College of Nursing website: https://nursing.wsu.edu.

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.
Admission

All students planning to pursue either the BSN or RN-BSN programs must apply to the Office of Admissions at WSU and be admitted to the University. Requirements may be met at WSU or may be transfer credits from another institution of higher education. The College of Nursing uses a Centralized Application Service (CAS) for BSN applicants.

All Registered Nurses planning to apply to the RN-BSN nursing major at WSU must do so through the Admissions Office at the WSU campus where they will attend classes. Applications are available throughout the year for admission to fall semester and another admission to spring semester. Students are encouraged to contact an advisor at their campus for lower-division advising.

Registered Nurse applicants (RN-BSN) must be graduates of an approved community college and be currently licensed or eligible for licensure to practice in the state of Washington at the time of application. Admission to the BSN program only occurs with meeting specific learning needs of registered nurses in the community, state, and throughout the country. Cost-effective programs are made available to prospective students with a master's degree 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-PMHNP), or Population Health (DNP-PH). Graduates of the FNP and PMHNP 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-PMHNP, 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>
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</thead>
<tbody>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>Generalized practice of professional nursing</td>
</tr>
<tr>
<td>Master of Nursing</td>
<td>Advanced Population Health</td>
</tr>
</tbody>
</table>

Doctor of Nursing Practice

Advanced Population Health
Family Nurse Practitioner
Psychiatric Mental Health Nurse Practitioner

Doctor of Philosophy

Nursing

COLLEGE OF PHARMACY AND PHARMACEUTICAL SCIENCES

Gary Pollack, Dean
Pharmaceutical & Biomedical Sciences Building Room 120K
WSU Spokane Campus
509-368-6605
https://pharmacy.wsu.edu/

Graduate Programs

The College of Pharmacy and Pharmaceutical Sciences offers a course of study leading to a Doctor of Pharmacy (PharmD) degree. The 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, Washington and the Pacific Northwest University of Health Sciences in Yakima, Washington. The fourth professional year of the PharmD curriculum consists of advanced experiential training, in which students will be assigned to one of the following geographic locations: Spokane, Yakima, Tri-Cities/Walla Walla, Wenatchee, Seattle/Tacoma, Olympia, or Pullman. Students are expected to complete the majority of rotations in their assigned geographic locations. Students will gain experience in a variety of health care environments, including community, institutional, and long-term care settings. Approximately 170 students are admitted annually, 130 on the Spokane campus, and 40 at the Yakima site.

A PharmD/PhD combined degree option is available to train clinician scientists. Interested students may apply for PhD admission concurrently with their PharmD application, or alternatively during the first two years of their progression through the PharmD program. A PharmD/MBA combined degree option is available to help support the development of future pharmacy business leaders and entrepreneurs.

The application period each academic year is July to January, and students should prepare and submit their application one calendar year before they intend to begin the pharmacy program. A bachelor's degree is not required for admission; prerequisites for admission typically require three years of pre-pharmacy education. For additional information regarding the Doctor of Pharmacy curriculum, please see the College of Pharmacy and Pharmaceutical Sciences home page at http://www.pharmacy.wsu.edu, or contact the Office of Student Services at 509-368-6605.

Graduate Programs

The mission of the Graduate Program in the Pharmaceutical Sciences is to prepare graduates for careers in academia, industry, and other public and private institutions dedicated to the promotion of human health. The PhD in Pharmaceutical Sciences 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. We strive to prepare students to become independent and creative problem solvers who will develop into leaders in their respective fields.

Students entering the program should have completed undergraduate work that includes biology, chemistry (including organic chemistry and biochemistry), mathematics (through calculus), and organismal/mammalian physiology. Students working toward the PhD in Pharmaceutical Science 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 concurrently with their PharmD application, or alternatively during the first two years of their progression through 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 experiences, and future plans.
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</td>
</tr>
<tr>
<td>Doctor of Pharmacy</td>
<td>Pharmacy</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Pharmaceutical Sciences</td>
</tr>
</tbody>
</table>

COLLEGE OF VETERINARY MEDICINE
Bryan Slinker, Dean
Bustad Hall, Room 110
509-335-9515
https://vetmed.wsu.edu

Faculty and curricula within the College of Veterinary Medicine provide a challenging, hands-on education for students in the life and biomedical sciences. Both undergraduate and graduate degree programs within the college include classroom instruction, seminars, special projects, and research, 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. This does not mean that a student needs to be interested in Veterinary Medicine to be successful in these programs—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 the applied life sciences. The benefits of being a major in these programs include: preparation for post-baccalaureate 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 many 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, biochemical mechanism of muscle contraction, chemotaxis, coevolution of plants and animals, reproductive biology, immunology, infectious diseases of humans and animals, cellular and systems neurosciences, and global health. All graduate students participate under the umbrella of activities sponsored by the Integrated Program in Biomedical Sciences (iPBS) in support of interdisciplinary training and professional development. Students who enter the graduate programs in the College participate in these iPBS training elements in addition to requirements unique to each degree-granting program.

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, 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 and Cell Biology, Microbiology, Neuroscience</td>
</tr>
<tr>
<td>Master of Science</td>
<td>Molecular Biosciences, Neuroscience, Veterinary Science</td>
</tr>
<tr>
<td>Doctor of Philosophy</td>
<td>Molecular Biosciences, Neuroscience, Veterinary Science</td>
</tr>
</tbody>
</table>

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, North Dakota, and Wyoming. Under the terms of this agreement, a student certified and admitted as 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/.