



## Summaries of Major Programs and Affiliated Gateway Courses

This document contains all of the four-year Major Degree Programs of study offered at the University of Wyoming. There are many additional minors and concentrations available across the colleges. If you're interested in learning more about a major, visit the program's website by searching for it at [www.uwyo.edu](http://www.uwyo.edu). Each department offering a degree program provided a brief summary of the major and a gateway course or courses that you may sample to help you decide if you'd like to pursue that major. As these summaries came from a variety of departments across campus, they vary in length and format but will give you a general idea of the content of each program.

**A note on Gateway Courses:** Many First-Year Seminar (1101) courses may serve as Gateway Courses to a major or minor field of study. Browse the current FYS 1101 courses offered by various departments across the University for topics that may be of interest to you and reflect your current Exploratory Track choice. See your advisor for more information.

Major	Gateway Course(s)	Summary
Accounting	ACCT 1010: Principles of Accounting I	<p>Whether driven by technological innovation or world events, accounting is at the heart of decision-making in today's fast-paced business environment. A critical factor in virtually every aspect of any organization, the UW Department of Accounting and Finance offers both a bachelor's degree and a master's degree in accounting in what is one of the 21st century's most diverse and stimulating fields.</p> <p>At the University of Wyoming College of Business, we focus not only on the procedures and conventions followed in accounting, but more importantly, on developing the professional skills essential to future success. Here you will learn the essential skills such as teamwork, listening, communicating (both orally and in writing), synthesis, evaluation, and critical thinking.</p> <p>With a UW accounting degree, career possibilities include: certified public accountant (CPA); information systems manager; chief financial officer; corporate</p>

		controller; business manager; certified internal auditor (CIA); bank examiner; certified management accountant (CMA); Internal Revenue Service agent; FBI Special Agent; Bureau of Alcohol, Tobacco and Firearms agent; and many more.
African American and Diaspora Studies	AAST 1000: Intro to African-American Studies, AAST 2360: African American History	African American and Diaspora Studies (AADS) offers undergraduates an opportunity to engage in an interdisciplinary examination of the history, culture, and life of African Americans and the African diaspora from ancient times to the present day. The African diaspora includes all people of African descent, not only in the United States but also in the Caribbean, the Americas, on the African continent, and in Europe. AADS is also directly tied to the African and African American community in Laramie, offering a unique opportunity for interaction between the students who attend the university and the community at large. Students who major or minor in AADS will be prepared to pursue careers in management, communication, non-profit organizations, education, and politics, among other fields. Perhaps, more importantly, UW graduates with a background in African American and Diaspora Studies will find themselves ready to participate in a rapidly changing world where multicultural training and a deep appreciation for diversity will help students succeed in whatever path they choose. Famous majors with degrees in African American Studies include Angela Bassett (actress) and Mae Jemison (NASA astronaut).
Agricultural Business	AGEC 1010: Principles of Macroeconomics, AGEC 1020: Principles of Microeconomics	<p>Today's dynamic agricultural industry demands flexibility, creativity, and critical thinking skills more than ever before. Students in this program can find themselves in careers ranging from traditional farm or ranch level work to international firms and government agencies. Students end up in a wide range of careers that require management and economic decision making as well as marketing understanding.</p> <p>This program is designed around a national study on Agribusiness Management education by the National Food and Agribusiness Management Education Commission (2006). The core courses in our program follow the NFAM report and focus on the three areas of expertise: management, marketing, finance, but then add to it economic decision-making.</p>

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		Beyond the Core students choose one of four options: Agribusiness, Farm and Ranch Management, Livestock Business Management, and International Agriculture. The program also allows for a wider range of careers in various natural resource related positions with minors in the physical sciences such as soils, animal science, agroecology, Environment and Natural Resources, and others to social science and business minors. The program complements more traditional business minors such as accounting and finance, providing an applied economic decision-making base to these programs of study. Students in this career route often get jobs in banking or accounting where the primary clientele may be from agriculture.
Agricultural Communication	COJO 1000: Intro to Mass Media; AGEC 1020: Principles of Microeconomics; AECL 1000: Agroecology; ANSC 1010: Intro to Animal Science; FCSC 1141: Principles of Nutrition; FCSC 1170: Introduction to Apparel Construction; FCSC 2121: Child Development (PSYC 1000 prerequisite); REWM 2000: Principles of Rangeland Management; CHEM 1020: General Chemistry; LIFE 1010: General Biology	<p>The BS in Agricultural Communications offers students a unique combination of academic and experiential opportunities to further their development as leaders in the field of agriculture. The innovative curriculum is designed to allow students to develop sophisticated communication and leadership skills through foundational common coursework, combined with the flexibility to study across a variety of agricultural disciplines. They further expand their communications knowledge based on their individual areas of interest. Students may choose to focus their agricultural courses in one discipline or get a broader experience by completing coursework in multiple disciplines including Agricultural Business, Animal and Veterinary Sciences, Plant Sciences, Rangeland Ecology and Watershed Management, Family and Consumer Sciences, Molecular Biology and Microbiology. Agricultural Communications majors may opt to minor in one of the disciplines within Agriculture and Natural Resources and many elect minors or additional majors in other colleges, including Environment and Natural Resources, Public Relations, Marketing Communications, Advertising, and Journalism.</p> <p>An Agricultural Communications degree can lead to a variety of career opportunities including in the areas of journalism or public relations, working with government agencies, commodity groups, newspapers, radio and TV stations, Cooperative Extension, non-profit and other organizations. Graduates also go on to graduate and/or professional programs, including Law School.</p>
Agricultural Education	EDST 2450: Fundamentals of Development and Learning; AECL 1000:	A strong balance of practical experience as well as theory has placed UW agricultural education graduates in great demand in the Rocky Mountain region. Our professors strive to produce agricultural educators who are leaders and innovators in the field. All graduates receive a Bachelor's Degree in Agricultural Education with an area of

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	<p>Agroecology; SOIL 2010: Intro to Soil Science; REWM 2000:Principles of Rangeland Management; ANSC 1010: Intro to Animal Science; AGEC 1010: Principles of Macroeconomics; AGEC 1020: Principles of Microeconomics</p>	<p>concentration in one of the following: Animal and Veterinary Science, Agroecology, Rangeland Ecology and Watershed Management, Soil Science, Agricultural Communication/Leadership, or Agricultural Business.</p> <p>The program is designed to build a well-rounded understanding of teacher education and agricultural science. Students will study both historical and current trends in curriculum and pedagogy while learning about special education techniques, integrating technology, and multicultural classrooms. The agricultural science curriculum is a combination of general agricultural science classes and classes from a chosen area of specialization. Throughout the program, authentic classroom experiences are embedded. Students also benefit from working in a state-of-art agriculture education lab to perfect their technical skills and teaching techniques.</p> <p>The Agricultural Education program offers two opportunities to students to increase their marketability. The first is an opportunity to opt for a minor from the College of Agriculture in their chosen area of concentration. The second is to add a biology education endorsement which would allow them to teach middle and high school biology classes.</p> <p>Graduates will leave the program equipped with the knowledge and confidence to teach the ideas of agricultural leadership, citizenship, communication, cooperation, hard work, and management of resources to our future leaders as an agriculture educator or FFA advisor.</p>
<p>Agroecology</p>	<p>PLNT 1000: Agroecology</p>	<p>The Bachelor of Science degree program in agroecology is an interdepartmental major involving faculty in the Departments of Plant Sciences and Ecosystem Science and Management. An agroecology minor is also available. The goal of agroecology is to promote the adoption of more sustainable agricultural practices in the United States and abroad. The Department of Plant Sciences offers a Bachelor of Science degree in Agroecology jointly with the Department of Ecosystem Science and Management, and three minors. Minors offered by Plant Sciences include Agroecology, Horticulture, and Plant Protection. The minor in horticulture includes courses in landscape design, plant materials and their propagation, organic food</p>

		production, turfgrass science, and greenhouse design and management. The minor in Plant Protection includes courses in agronomy, plant genetics, plant pathology, and weed science. These minors allow students within many bachelors programs to obtain an added emphasis in areas that enjoy strong employment opportunities.
American Indian Studies	AIST 1001: Foundations in American Indian Studies	American Indian Studies (AIST) at the University of Wyoming offers an undergraduate major, minor, and a graduate minor. The AIST program develops respect for, and understanding of, Native views, culture and history. AIST provides learners with the Native perspective on education, Indigenous contemporary issues, language, history, anthropology and law. Students in AIST develop and refine skills in creative and critical thinking and analysis and graduate prepared to succeed in any field they choose. Our majors and minors work both in and out of American Indian communities in fields such as education, law, medicine, and politics, just to name a few.
American Studies	AMST 2010: Introduction to American Studies; AMST 2110: Cultural Diversity in America; AMST 2700: Introduction to Museology	<p>American studies is an interdisciplinary field emphasizing the integration of the humanities, fine arts, and social sciences in the study of American experiences, past and present. Our Program places special emphasis on studying American cultures through course work, field experiences, and internships so that each student can apply academic knowledge to real-life circumstances. Our Program highlights international perspectives, as well as the transnational context of American impacts and experiences, in course work and in exchanges available to AMST students. AMST also highlights opportunities in the public sector, including historic preservation of buildings, neighborhoods, or landscapes.</p> <p>AMST puts people, ideas, places, artifacts, images, and histories together in programs of study preparing students for specific career goals in K-12 education or work in the public sector (museums, collections, historic sites, interpretive centers, for example), or further education in professional schools and graduate study.</p> <p>In Wyoming, American Studies maintains close relationships with the Wyoming Arts Council, particularly through the Traditional and Folk Art program, and the Wyoming Humanities Council. At UW, the program enjoys strong ties with many units on campus, including interdisciplinary programs like the Haub School for Environment</p>

		<p>and Natural Resources (ENR). American Studies supports fine arts programming on campus as well as Ira Glass's series, "This American Life," on Wyoming Public Radio.</p> <p>American Studies at the University of Wyoming offers a wide and varied array of opportunities for students to earn a degree that truly meets their needs.</p>
Animal and Veterinary Sciences	ANSC 1010: Intro to Animal Science	<p>The Department of Animal Science offers a variety of courses in animal and food science. The department has modern laboratories and excellent animal facilities including a livestock teaching arena and a meat processing facility. Courses in animal science, food science and pathobiology are the core offerings in the various options. The Department of Animal Science and the Department of Veterinary Science have combined curriculum under Animal and Veterinary Science (ANVS).</p> <p>The curriculum leads to a wide variety of career opportunities for animal and veterinary science graduates. The various options provide maximum flexibility to meet the changing needs of students and their employers. A student may also choose to combine 2 options (example= Production/Business) and/or add a minor in order to broaden their education in Animal Science.</p> <p>Students are encouraged to participate in activities related to their degree option. The department offers a livestock judging team, a meats judging team and a wool judging team. Each team travels and participates in at least one major exposition a year. Internships are available to gain practical experience. Student organizations such as the Block and Bridle Club, Food Science Club, Rodeo Club and the Pre-Vet Club provide additional educational and recreational materials.</p>
Anthropology	<p>ANTH 1100: Introduction to Biological Anthropology;</p> <p>ANTH 1200: Introduction to Cultural Anthropology</p>	<p>Anthropology is a broad field that studies all aspects of humans in the past and present, including our biology and evolution, behavior, language, culture, and history. There are four subfields of anthropology: archaeology, biological anthropology, cultural anthropology, and linguistic anthropology. Anthropologists have a wide training that encompasses the physical, biological, and social sciences as well as the humanities. Although students can specialize in any of the four subfields of anthropology, majors will learn both qualitative and quantitative ways of studying the human existence.</p>

		<p>There is a huge range of careers that anthropology majors pursue. For example, you might work as an archaeologist for a museum, state government, or the National Park Service. Forensic anthropologists, biological anthropologists who study human skeletal remains, commonly work in law enforcement. Cultural and linguistic anthropologists can find employment, for example, in government, business, the Foreign Service, or the military. An anthropology major can provide a foundation for graduate study in many fields including law, public health, and the social sciences. If you are a critical thinker, are interested in what it means to be human, and like thinking broadly about problems facing the world today, anthropology could be the right major for you.</p>
Architectural Engineering	None for non-majors	<p>Architectural Engineers are trained with a rigorous technical knowledge about building systems, but also with a holistic view of how those building systems are integrated within the overall building design. They are trained to collaborate with architects and others in the building industry. Architectural engineering students learn about building systems in preparation to become a Professional Engineer in the building industry. At UW, the Architectural Engineering program has a strong reputation for strength in Building Information Modeling, which refers to the 3D computer modeling of building systems and simulating building performance.</p> <p>Architectural engineering majors have course options in building structural systems and building mechanical systems. The undergraduate program includes a foundation in mathematics, science, and engineering sciences. Our programs combine fundamental theory, experimental laboratory experiences and computer modeling and simulation. Incoming freshman experience at least one design based-course each year in an innovative course sequence called VISTA (for Vertically Integrated Science and Technology Application), wherein students tackle modern engineering challenges from their very first semester. Architectural Engineers find employment in many facets of the building industry.</p>
Art	ART 1005: Drawing I; ART 1115: Digital Media	<p>A degree in Art provides necessary skills for students to track many diverse professions including fine artist, illustrator (medical, book, scientific, etc.), graphic designer, Comic Book illustrator and graphic novels, College Professor, Forensic archeologist, photographer, animator/digital artist, arts program administrator, sculptor, installation designer, multimedia digital graphic designer for advertising/broadcast/film, display designer (for retail, municipal, and corporate settings), potter, Master Printer, gallery manager, art</p>

		director (advertising/media companies), video editor and game designer, Tattoo artist, art critic, architect, muralist, public art director, art therapist, art educator (K-12 and adult education), dental prosthetics, architectural model maker, cartoonist, art dealer, interior designer. Students with an Art degree are desirable in many professional fields including Law, Engineering, and Theater (stage design and scene painting).
Art History	ART 2010: Art History I	A degree in Art History provides necessary skills for students to have successful careers as archivist, museum and gallery curator, museum technician, educator, museum administrator/staff/event planner, editor/writer/designer for art-based publications and digital media, grant manager for nonprofits/higher education/museums, historian for public/private collections, gallery manager, public relations for art/film/fashion industry, historical interpreter for historic sites, Public Art administrator, Theater historian, Costume Design, Art critic, writer, Historian, College Professor, and researcher. Students with a degree in Art History are desirable in a variety of professions that can include non-profit and private sector jobs that require critical analysis.
Astronomy/ Astrophysics	ASTR 1050: Survey of Astronomy	Astronomers are versatile problem solvers with skills in physics, mathematics, computer science, digital image analysis, and electronics. An astronomer's training is similar to a degree in physics or engineering. Astronomy bachelors degree recipients are hired by diverse corporate sectors that include aerospace, remote sensing, defense, climate, finance, health care, and actuarial. An astronomer is also well prepared to pursue graduate study in astronomy, physics, atmospheric science, computer science, engineering, secondary science education, science communication, or other technical programs. Data on career paths of astronomy bachelors is compiled by the American Institute of Physics and may be found at <a href="https://www.aip.org/statistics/astronomy">https://www.aip.org/statistics/astronomy</a> . See also <a href="https://www.aip.org/statistics/physics">https://www.aip.org/statistics/physics</a> .
Biology	LIFE 1010: General Biology	The Bachelor of Science degree in Biology is designed to provide a thorough foundation in biology and other supporting areas of science and mathematics, while providing maximum flexibility and student choice. The degree program is administered by the Department of Botany. Upon completion of the core requirements for the major, specific courses to complete the major will vary according to a student's interests and career plans and may be selected from a variety of departments on campus in consultation with a student's faculty advisor.

Botany	LIFE 1010: General Biology	<p>Welcome to the Department of Botany at the University of Wyoming. We conduct fundamental scholarship on plants and other organisms, within populations, communities, and ecosystems. Our faculty members are recognized nationally and internationally and are actively engaged in their scientific communities. Our research includes Ecology, Evolution, Environmental Change, Ecohydrology, Remote Sensing, Systematics &amp; Floristics, and Symbiosis. These are investigated using genomics, computational science, stable isotopes, microscopy, spatial data analysis, remote sensing, biogeochemical and physiological approaches, and field and laboratory experiments. Our students receive a high quality education through engagement in these topics and tools and through faculty involvement in science education research.</p> <p>The Botany Department also houses the Rocky Mountain Herbarium and the Williams Conservatory, both located in the Aven Nelson Building.</p>
Business Economics	ECON 1000: Global Economic Issues; ECON 1010: Principles of Macroeconomics; ECON 1020: Principles of Microeconomics	<p>Economics is the science of how trade links human motives to social order. Economics provides you with a logical way to think about your own personal decisions and world affairs - a mind-set you can use your entire life. Economics can enrich your life by providing you with an area of knowledge or a way of thinking that you can use forever. Economics gives you tools to make a difference in public policy debates. Economics majors at the University of Wyoming acquire the general business skill and rigor useful for a wide variety of interesting and high-paying jobs that help our majors be able to be among the top 1% of earners.</p> <p>The preparation is less specific than other business-related majors, but this gives students the flexibility to select from a variety of careers. Some of our recent graduates include: Land-man Anadarko Petroleum; President-First Western Trust Bank; Financial Analyst-FDIC; Business Analyst-Boeing Aerospace; Buyer-Target; Title Analyst-Anadarko Petroleum; Analyst in Public Finance-Congressional Research Service; Research Manager &amp; Staff Attorney-Wyoming Legislative Service Office; Energy Policy Advsor-U.S. Senator Barrasso; Executive Director-Wyoming Tax Payers Association; Professor-University of Wyoming.</p>

		<p><a href="#">Business Economics majors</a> earn a supplementary foundation in business as they complete the same core business courses as all other business degrees. Students have their choice from a wide range of <a href="#">courses</a> in natural resource economics, energy economics, international trade, environmental economics, industrial organization, game theory, development economics, mathematical economics and econometrics.</p>
Chemical Engineering	None for non-majors	<p>Chemical Engineering turns raw materials, such as crude oil, biological materials, metals and waste materials, into usable products such as gasoline, foods and medications. Chemical engineers apply the principles of chemistry, biology, physics and math to solve problems that involve the production or use of chemicals, fuel, drugs, food and many other products. At UW Chemical Engineering, we strive to prepare students to be leaders in industry, government or academia. Careers in the energy, food, water, manufacturing, healthcare and pharmaceutical industries are typical. Professionals work on creating and refining polymers in manufacturing and medicine. They design processes and equipment for large-scale safe and sustainable manufacturing, plan and test methods of manufacturing products and treating byproducts and supervise production.</p>
Civil Engineering	None for non-majors	<p>Civil Engineers design roads and bridges, municipal water systems, sewer systems and wastewater treatment plants, dams and irrigation channels, excavations and slope-stability projects. Civil Engineering students learn about infrastructure and the technical aspects of urban and rural land development. Civil engineering majors are provided course options in environmental, geotechnical, structural, transportation, and water resource engineering. The undergraduate program includes a foundation in mathematics, science, and engineering sciences. Our programs combine fundamental theory, experimental laboratory experiences and computer modeling and simulation. Incoming freshman experience at least one design based-course each year in an innovative course sequence called VISTA (for Vertically Integrated Science and Technology Application), wherein students tackle modern engineering challenges from their very first semester. Graduates from our program find</p>

		employment with public agencies, private firms and in industry in small towns and large cities nationwide.
Communication	COJO 1000, COJO 1040 (Both for Comm./Arts track, 1040 only for other tracks)	The Communication and Journalism Department educates students about the importance of communication in any career or life path. The department offers guidance and instruction on successful interpersonal, intercultural, diversity, global, public, and media communication. The department aspires to be an academic leader in various communication contexts, media teaching, research, and creative projects, and be recognized for empowering students through intellectual inquiry to meet the communication challenges of a globally connected society. Communication is a liberal arts degree relevant to a variety of careers, including community relations, public relations, politics, administration, law, sales management, and human resource management.
Computer Engineering	None for non-majors	Computer Engineering is a blend of Computer Science and Electrical Engineering, you'll learn how to design complex computer systems and embed them in custom applications such as robots, spacecraft, and automobiles. It is similar to the electrical engineering program, but emphasizes computer related technology. Compared to Electrical Engineers, Computer Engineers have less breadth of knowledge in Electrical Engineering but more depth in software and computer hardware. Compared to Computer Scientists, Computer Engineers know much more about hardware and signal/system theory. The undergraduate program includes a foundation in mathematics, science, and engineering sciences. Computer engineering students take many of the same required courses as Electrical Engineers, but fill in their electives with computer specific courses. Computer Engineers find employment in almost any area including energy/power, aerospace, automotive/ transportation, computer networks, robotics, satellite and cellular communications, music/video special effects, software design, microcomputers, biomedical instruments/imaging, electronic devices and many others.
Computer Science	None for non-majors	Computer Science studies all aspects of the use and understanding of software systems, information, and computational processes. Computer Science prepares students for careers in virtually any industry or to continue on with graduate study in Computer Science and many other fields. Computer science students learn to

		<p>approach problems from a computational (algorithmic) point of view. This major consists of a core set of courses plus a concentration chosen by the student from one of: Computer Science, Computers and Business, International Engineering, or Big Data. Traditional areas of computer science employment such as graphics, software engineering, networks, databases, multimedia, and artificial intelligence remain strong, with job growth being driven by advances in robotics and the fundamental impact of computer science in nearly every industry. Students also find employment in areas like 3D-user interfaces and graphics, virtual environments, evolutionary robotics, cyber security, and human-computer interaction.</p>
Criminal Justice	CRMJ 1001: Intro to Criminal Justice	<p>Criminal Justice (CJ) is a social science that critically examines the causes and control of criminal behavior. The Department of Criminal Justice is interdisciplinary. Criminology, Political Science, Sociology, Psychology, Anthropology, and many other disciplines contribute to the Criminal Justice field.</p> <p>The Department of Criminal Justice is committed to providing its students a broad liberal arts education. This will help prepare CJ students for a variety of professions, including local, state, and federal law enforcement; court administration; law school; probation and parole; corrections; the military; homeland security; and private security.</p>
Economics	ECON 1000: Global Economic Issues; ECON 1010: Principles of Macroeconomics; ECON 1020: Principles of Microeconomics	<p>Economics is the science of how trade links human motives to social order. Economics provides you with a logical way to think about your own personal decisions and world affairs - a mind-set you can use your entire life. Economics can enrich your life by providing you with an area of knowledge or a way of thinking that you can use forever. Economics gives you tools to make a difference in public <a href="#">policy debates</a>. Economics majors at the University of Wyoming acquire the general business skill and rigor useful for a wide variety of interesting and <a href="#">high-paying jobs</a> that help our majors be able to be <a href="#">among the top 1% of earners</a>.</p> <p>UW offers economics degree programs that provide students with the academic background that enables them to succeed in a variety of career options. Economics faculty and students examine economic issues that matter locally and around the</p>

		<p>globe, including issues related to environmental policy, natural resources, energy, market organization, trade, and economic development.</p> <p>The University of Wyoming Department of Economics continues to be ranked among the world’s top programs in environmental economics, according to <a href="#">IDEAS</a>, a prestigious worldwide organization that disseminates economics research. IDEAS is a service hosted by the Research Division of the Federal Reserve Bank of St. Louis.</p> <p>In its “Top 10% Institutions and Economists in the Field of Environmental Economics,” Research Papers in Economics ranked the UW Department of Economics as one of the top Departments studying environmental and natural resource economics. The list includes all academic and non-academic research institutions around the world.</p>
Electrical Engineering	None for non-majors	<p>Electrical Engineering provides depth of understanding necessary to meet the challenges of ever-changing technology and allows students to pursue comprehensive study in at least one specialization area of electrical engineering. These areas include: design control and communication systems, sensors, displays, learning machines, robots, instruments, voice recognition, computer vision, electronics, motors, power systems, the internet of things—and more. The undergraduate program includes a foundation in mathematics, science, and engineering sciences with required study including electronics, microprocessors, digital circuit design, control systems, communication systems, power systems, signal processing, and software. Electrical Engineers find employment in almost any area including energy/power, aerospace, automotive/ transportation, computer networks, robotics, satellite and cellular communications, music/video special effects, software design, microcomputers, biomedical instruments/imaging, electronic devices and many others.</p>
Elementary Education	FCSC 2121: Child Development (Requires prerequisite PSYC 1000);	<p>It is a challenging yet exciting time for educators at all levels. The need for highly qualified teachers in early childhood and elementary classrooms is tremendous. The Department of Elementary and Early Childhood Education, in collaboration with multiple departments in Education and Arts &amp; Sciences, provides high quality,</p>

	<p>Education courses are generally reserved for those who have declared Elementary Education as a major, which is a prescribed four-year program.</p>	<p>NCATE accredited programs for students leading to K-6 teaching certification, teaching endorsements, and graduate degrees in Curriculum and Instruction.</p> <p>The undergraduate Elementary Education degree is a 120 credit hour program, typically taking four years to complete for incoming freshmen. The <u>program</u>, one component of the Wyoming Teacher Education Program (WTEP), prepares students to teach grades K-6 with a Wyoming teaching certificate. Students majoring in elementary education take general university studies courses, content courses in math, science, literacy, music, art, American diversity, and communication, and education courses in special education, democracy in schools, assessment, and content pedagogy. Additionally, elementary majors choose an area of concentration in which they take 18 credit hours. The areas of concentration include <u>Interdisciplinary Early Childhood</u>, <u>Creative Arts</u>, <u>International Education Studies/American Cultural Diversity</u>, <u>Environmental Studies</u>.</p> <p>The WTEP operates in partnership with public schools in the state with a focus on simultaneous renewal in teacher preparation. Students spend intensive time in school classrooms teaching and applying what they have learned under the mentorship of master teachers in districts designated as Professional Learning Communities, or PLCs.</p>
<p>Energy Resource Management: Air, Land, and Water</p>	<p>ERS/ENR 1000: Energy and Society; ECON/ERS 1300: Oil—Business Culture Power; Life 1010 General Biology</p>	<p>The development and management of energy resources is dependent upon the sustained stewardship of air, land and water. For example, reclamation and restoration of coal production areas is very sophisticated and is one of the success stories of modern energy production, Oil, gas, wind, solar, uranium and other energy asset production also require careful consideration of environmental impacts on the complex interactions between flora, fauna, and the physical environment. Effective and environmentally sound application of emerging energy technologies such as CO2 storage and in wind and solar farm placement begin with consideration of air, land and water resources.</p>

		Students in the program take courses in communication, mathematics, statistics, business, economics and law, chemistry, biology, engineering, energy, geographic information systems, and negotiation.
Energy Resource Management: Professional Land Management	ERS/ENR 1000: Energy and Society; ECON/ERS 1300: Oil—Business Culture Power; MGT 1040 Legal Environment of Business; MATH 2350: Business Calculus	<p>The Professional Land Management (Landman) concentration is accredited by the <u>American Association of Professional Landmen</u>. The University of Wyoming program prepares nationally accredited professional landmen for long-term competitive success in the energy industry. The landman has an important role in maintaining sound stewardship of energy resources and applying knowledge in energy, geology, engineering, business, law, economics, finance and regulatory policy.</p> <p>Make a difference in people's lives by building trustworthy relationships and seeking mutually beneficial solutions to energy exploration and production issues.</p> <p>So what is a landman? A landman determines ownership and title of surface and subsurface rights and negotiates leases with landowners and develops and administers mutually beneficial contracts and royalties with the assistance of corporate counsel to allow exploration and production. A landman also coordinates field exploration activities connecting the lease owners and the exploration/production company and ensures compliance with governmental regulations, collaborates with stakeholders including engineers, geologists, accountants, and attorneys.</p> <p>Students in this program take courses in communication, mathematics, statistics, business, economics, land management, energy, geographic information systems, law and negotiation. Law classes include Property Law I and II, Contracts, Oil and Gas Law, Public Lands, and Advanced Oil and Gas Law.</p>
Energy Systems Engineering	None for non-majors	The Energy Systems Engineering program is designed to train engineers to address one of this country's foremost challenges: to achieve energy independence and meet the growing demand for energy, while addressing critical environmental concerns. Much of the course work requirements are common to the Mechanical Engineering degree, particularly in the thermal, fluids, and energy conversion sciences. However, the ESE program emphasizes energy conversion aspects of Mechanical Engineering and requires course work from UW's

		School of Environment and Natural Resources (SENR), course work in environmental law, and two electives picked from a list of classes that focus attention on energy and the environment. This program prepares students to be technology leaders in energy conversion and environmental-protection systems, managers in the energy industry, overseers of energy development and to be environmentally sensitive liaisons between the energy industry and the public. ESE engineers are trained in alternative and environmentally friendly energy- conversion systems such as wind, solar and geothermal, as well as more traditional technologies. Energy Systems engineers find employment at oil/ gas companies and in oil/gas support services, at electric utilities, for state agencies providing environmental oversight, in environmental management and remediation and others.
English	English 2025: Intro to English Studies  ENG 2020: Literature, Media, and Culture (must have completed COM 1); CW 1040: Intro to Creative Writing	What can you do with an English major? What <i>can't</i> you do with an English major might be a better question! Unlike some degree programs that train students for a single career path, English provides students with a set of essential skills that can be applied across a variety of different professions: proficiency in writing, oral and digital communication, research, and critical thinking. Potential employers are always excited to see English majors in their applicant pools, as they love finding employees who can <i>write</i> . As “CNN Money” puts it, “Strong communications skills are the single most important attribute a candidate can have and also the one most lacking among job applicants.” English majors go into a wide range of professions, including law, education, communications/media, publishing, grant writing, editing, journalism, creative writing, library sciences, curatorial work (museums/archives), government and public policy, and corporate and non-profit work including marketing, management, sales, and entrepreneurship.
Environmental and Natural Resources	ENR 1200: Environment; ENR 1300: Foundations of Sustainability; ENR 1500: Water, Dirt & Climate; ENR 2000: Environment & Society	Environment and natural resources understanding is relevant to every field of study—from biology to business, from public health to political science, from art to anthropology, and many more. A major in environment and natural resources from the Haub School emphasizes development of essential skills, such as communication, critical thinking, and collaborative problem-solving.  ENR core courses teach students to learn about things like current and historic environmental values and how environmental assessments work. You'll also take additional credits of ENR disciplines from several different departments on campus to round out your understanding of cultures and values, economics, environmental

		management, science, and policy as they relate to environment and natural resource issues.
Environmental Geology/Geohydrology	GEOL 1005: Earth History; GEOL 1100: Physical Geology	The Environmental Geology and Geohydrology degree is designed for those students who intend to become professionals in environmental fields such as consulting, site assessment, hazard assessment, and remediation. The degree will prepare students for graduate school in environmental disciplines and for entry-level jobs. Recognizing the importance of water and mineral resources to society, this program uses a systems point of view to prepare students for study and assessment of water resource quantity, water quality, threats to resources, and chemical interactions between water and geomaterials that influence the environment.
Environmental Systems Science (ESS)	ESS 1000: Wyoming in the Earth System; ENR 1200: Environment; ENR 1500: Water, Dirt & Climate	<p>The environmental systems science curriculum is designed for students seeking an introduction to the physical, biological, and human components of the Earth system through data collection, statistical analysis, information technology, and modeling.</p> <p>This is an interdisciplinary environmental science degree focusing on the scientific methods, content, and tools you'll need to succeed in an interconnected world. A B.S. in ESS emphasizes the development of essential skills: interdisciplinary and integrative thinking; designing, conducting, and interpreting scientific investigations; applying concepts to environmental problem; and using technological tools to examine spatial and temporal patterns.</p>
Family and Consumer Sciences	FCSC 1141: Principles of Nutrition; FCSC 1150: Scientific Study of Food; FCSC 1160: Introduction to Fashion and Dress; FCSC 1180: Applied Design; FCSC 2131: Family Relationships; FCSC 2133: Intimate Relationships	<p>Family and Consumer Sciences integrates the fundamental components of human life—food, shelter, clothing, human relationships, and family—with larger societal systems. Through programs in textiles, apparel and design; food and nutrition; and human development and family sciences, our department prepares learners to meet the opportunities and challenges of today's complex world.</p> <p>Americans today are concerned about weight control, maintaining a healthy body, and practicing good nutritional habits for better health. Choosing human nutrition and food can be the beginning of a rewarding career. Course work in the Human Nutrition and Food area emphasizes physical, biological, and social sciences; math</p>

		<p>and statistics; and nutrition and food. We also offer an accredited dietetics program that prepares students to become registered dietitian nutritionists (RDN's). RDN's work in settings including clinical, community and public health, culinary research and education, sports and wellness, and the food and medical industry.</p> <p>The Human Development and Family Sciences (HDFS) option prepares students to work with individuals and families across the lifespan. Students also complete an internship that provides hands-on experiential learning in a human services organization or agency. Career fields for HDFS graduates include early childhood, youth, family, and adult programs; community service and governmental agencies; and higher education. The Professional Child Development option is offered by distance delivery only and prepares students for teaching and administrative positions in early childhood development and care; work in resource and referral agencies; and child advocacy.</p> <p>The Design, Merchandising, and Textiles option prepares students for a diverse and competitive field. One can merge creativity and problem solving through apparel and interior design, delve into the scientific study and practical applications of textile fibers, or simply learn business principles within fashion and interior design industries. In addition to theoretical study, practical training is encouraged through real-world projects with clients. From the fashion show runway, to public design exhibits, to working with businesses to re-imagine interior spaces and marketing campaigns, opportunities for hands-on experiences are plentiful.</p>
Finance	ACCT 1010: Principles of Accounting; ECON 1010: Principles of Macroeconomics; ECON 1020: Principles of Microeconomics	<p>Whether driven by technological innovation or world events, finance is at the heart of decision-making in today's fast-paced business environment. A critical factor in virtually every aspect of any organization, the UW Department of Accounting and Finance offers both bachelors' and masters' degree programs in Finance—one of the 21st century's most diverse and stimulating fields.</p> <p>At the University of Wyoming College of Business, we focus not only on the procedures and conventions followed in finance, but more importantly, on</p>

		<p>developing the professional skills essential to future success. Here you will learn the essential skills such as teamwork, listening, communicating (both orally and in writing), synthesis, evaluation, and critical thinking. Those skills will enhance your ability to use knowledge learned in the classroom in real world situations.</p> <p>With a UW finance degree, career possibilities include: chartered financial analyst (CFA); chief financial officer; corporate controller; wealth management advisor, business manager; certified financial planner (CFP); bank examiner; certified management accountant (CMA); portfolio manager, investment banker, and many more.</p>
French	FREN 1010: First Year French I	<p>As a department of world languages, literatures, and cultural studies, we prepare our students for life and careers in an increasingly global world. Our program in French enables students to combine their language training with interdisciplinary study of the regions where their language is spoken.</p> <p>The Modern and Classical Languages department offers work leading to the B.A. degree with majors and minors in French, German, and Spanish, or concentrations for the B.A. in humanities/fine arts.</p>
Gender and Women's Studies	WMST 1080: Intro to Women's Studies; WMST 1900: Women & Leadership	<p>Gender and Women's Studies (GWST) is a dynamic field of inquiry that offers students the opportunity to explore issues of gender and sexuality. As a student in our program, you will develop a set of valuable critical thinking and analytical skills that will give you a solid academic foundation as well as prepare you for a career that values critical thinking, oral and written communication, research and problem solving, and client advocacy. Our graduates have succeeded in medical and law school, as well as excelled in careers in health, human rights, business, politics, and the administration of community service agencies. We offer a major and minor for undergraduates and a graduate minor in Gender and Women's Studies and an undergraduate and graduate minor in Queer Studies.</p>

		We have several opportunities for students, including internships, travel abroad, and graduation with Honors. Many of our students (as well as faculty) are active leaders on campus and in the community. Come join us!
Geography	GEOG 1000: World Regional Geography; GEOG 1010: Intro to Physical Geography; GEOG 1020: Intro to Human Geography	<p>Geography-the description and analysis of the location and distribution of phenomenon on Earth using maps, satellite imagery and other geo-spatial techniques (GPS, drones, automated vehicles). Geographers examine the relationships between different characteristics of the landscape, both physical and human-built, to determine why it has those characteristics or to predict how it will look into the future. Using different geographic concepts regarding place, networks, region, diffusion, and differences in scale from local to global, geographers model the relationships between places using a variety of analytical tools to visualize that landscape. Geographers specialize in a range of topical specialties that encompass the physical environment or the social world.</p> <p>Some notable geographers include Michael Jordan famous for his basketball skills, but he has his degree in Geography-Meteorology; Jerome Boume former Director of the US Census Bureau; Barry Bishop part of the first USA team to climb Mt. Everest; and John Wesley Powell explorer of the Colorado River.</p>
Geology	GEOL 1100: Physical Geology GEOL 1500: Water, Dirt and Earth's Environment GEOL 1600: Global Sustainability	A degree program in geological science that prepares students for graduate school as well as jobs in geoscience that may include geophysicist, seismologist, geochemist, hydrogeologist, environmental scientist, economic geologist, and other careers.
Geology and Earth Sciences	GEOL 1100: Physical Geology GEOL 1500: Water, Dirt and Earth's Environment GEOL 1600: Global Sustainability	Not intended as a geology degree leading to graduate school, this program prepares students for jobs that require some geoscience background as well as regulatory, business, economic, policy, environmental, or other skills with a view to jobs in education, BLM, companies needing compliance expertise, forest service, national parks.

German	GERM 1010: First Year German I	<p>As a department of world languages, literatures, and cultural studies, we prepare our students for life and careers in an increasingly global world. Our program in German enables students to combine their language training with interdisciplinary study of the regions where their language is spoken.</p> <p>The Modern and Classical Languages department offers work leading to the B.A. degree with majors and minors in French, German, and Spanish, or concentrations for the B.A. in humanities/fine arts.</p>
History	HIST 1010: Introduction to History—Encounters with Difference, HIST 1110: Western Civilization I, HIST 1210: United States History I	<p>History is a foundational discipline that blends the methodologies and perspective of the humanities and social sciences in order to engage with the history of human culture on a global scale. UW’s History degree program emphasizes interdisciplinary teaching and research and provides course work, research experiences, and internships on both American and international topics. The study of History provides students with the tools to comprehend the present in order to prepare for the future. Challenging courses are designed to facilitate critical thinking and the development of analytical skills. Each of our courses features the discussion of complex issues, the development of writing and reading skills, and is generally oriented toward promoting individual enrichment. The History program offers a Bachelor of Arts degree major and minor, and a Master of Arts degree. The professional skills that the History program instills transcend our field and allow students to work toward a variety of career choices such as business, law, government service, politics, public history, archives and museum work, historical preservation specialist, education, informational technology specialist, program and organizational management, writing, researcher, librarian, editor, journalist, corporate historian, as well as graduate studies in numerous fields.</p>
International Studies	INST 1060: World Regional Geography; INST 2310 Intro to International Relations	<p>Students graduating with a degree in international studies will be able to recognize and appreciate the historical, political, social, cultural, and economic dimensions of international processes and issues, integrating these into an interdisciplinary perspective. The International Studies major encourages students to spend at least one semester abroad or in an internationally focused internship. An international</p>

		<p>studies degree is a valuable asset in preparing you for graduate programs in international relations, law, public administration, anthropology, geography, environmental studies, and public health. Many of our graduates pursue careers in international organizations, such as the United Nations, nonprofits, the Peace Corps, law, and international business. Many also go into education, teaching English in a foreign locale or in high school social science courses, or as administrators of internationally focused academic programs. The global marketplace needs people who are aware of cultural, environmental, political and resource issues and can speak a second language. Some of our students dual major in economics or business, or minor in international business, while others continue on to earn their M.B.A. in preparation for working with international firms. Our degree program also offers minors in European and Asian Studies and houses the Arabic Language Program. Famous alumni include: Marilyn Kite, first female justice on the Wyoming Supreme Court and current Chief Justice; and Margaret McKeown, Judge, U.S. Court of Appeals, Ninth Circuit, named one of the "50 Most Influential Women Lawyers in the United States" by the <i>National Law Journal</i> and a "Cool Woman" by the Girl Scouts.</p>
Journalism	COJO 2100: Media Writing	<p>Journalism is a degree designed to prepare students for careers as reporters, writers, editors, designers, content managers, advertisers, social media managers, public information officers, and public relations professionals in a wide variety of media organizations, such as newspapers, magazines, PR and advertising agencies, and digital media. With a degree in communication and journalism, your career opportunities include media production, public relations, journalism, advertising, photography, marketing communication, web design, human relations, consulting, higher education, sales, management, business promotion, law school, diversity training, social media, graphic design and graduate school. Your success is encouraged with internships, study abroad opportunities, student educational opportunities (e.g., McNair Scholars Program, Student Success Services), Lambda Pi Eta membership in COJO, and research involvement with faculty.</p>
Kinesiology and Health Promotion	FSCS 1141: Principles of Nutrition; CHEM 1020:	<p>Students in the Kinesiology and Health Promotion program (K&amp;HP) can pursue the areas of health promotion, clinical exercise physiology, biomechanics, nutrition,</p>

	General Chemistry; LIFE 1010: General Biology;	basic science, behavior science, and business management. The K&HP program is an excellent preprofessional program for students seeking to enter the field of medicine, specifically to become a physician, physician assistant, occupational therapist, physical therapist, dentist, optometrist, ophthalmologist, chiropractor, or other related occupation in medicine.
Management	MGT 1040: Legal Environment of Business	<p>Business today moves faster than ever. The global competition is intense, the escalating change in technology is ruthless, and the pressure to retain key people is exceedingly high. The environment of risk and reward is intense and leads to faster decision making, faster implementation, faster growth, or collapse.</p> <p>The Department of Management and Marketing prepares future leaders to be effective in the competitive, dynamic environment of business with a special emphasis on sustainability, international business, entrepreneurship, and business ethics. The department offers bachelor's degrees that provide you with the tools you'll need to successfully understand our ever-changing business world.</p> <p>The Management major focuses on using resources to achieve goals in organizations. It studies the activities and operations that bring together human, financial, material, and information resources. Management majors should graduate with an understanding of the business world and set of tools to successfully manage parts or all of an organizations operations. The program is designed to provide the student the opportunity to major in Management and at the same time, to create a concentration in one of the following areas: Management Consulting, Entrepreneurship, or Supply Chain management.</p>
Marketing	MGT 1040: Legal Environment of Business	<p>Business today moves faster than ever. The global competition is intense, the escalating change in technology is ruthless, and the pressure to retain key people is exceedingly high. The environment of risk and reward is intense and leads to faster decision making, faster implementation, faster growth, or collapse.</p> <p>The Department of Management and Marketing prepares future leaders to be effective in the competitive, dynamic environment of business with a special</p>

		<p>emphasis on sustainability, international business, entrepreneurship, and business ethics. The department offers bachelor's degrees that provide you with the tools you'll need to successfully understand our ever-changing business world.</p> <p>Marketing creates, distributes, promotes, and prices goods and services in order to establish and maintain satisfying relationships with consumers. Since the environment in which consumers live is always changing, so is the marketing function. But the fundamentals remain the same: to first understand the needs of consumers, then to design products and services that meet those needs. Marketers, regardless of their industry, want long-term relationships with clients. Exciting careers await UW's marketing graduates, including Brand Management, Retailing, Advertising, Sales, and Event Planning.</p>
Mathematics	MATH 1400: College Algebra	<p>"A mathematician, like a painter or a poet, is a maker of patterns. If his patterns are more permanent than theirs, it is because they are made with ideas." —G. H. Hardy</p> <p>Mathematics has been described as the science of patterns<sup>1</sup>. Mathematicians seek out and study patterns, and they investigate relationships between these patterns. However, mathematical inquiry—the search for patterns—is rooted in number, in shape, in space, and in our physical world; and mathematics is naturally the "language of the sciences." Indeed, mathematics is an essential ingredient in many aspects of engineering and science among other disciplines</p> <p>Math majors develop quantitative and analytical skills. The discipline of mathematics places a premium on the ability to reason logically, to deal with abstraction, but, most of all, to solve problems. Thus, being a math major is not about skills training; we aim to furnish all our students with a combination of mathematical knowledge and mental flexibility, together with an attitude and aptitude for problem solving that will serve them well for a lifetime in a complex and increasingly technologically driven world.</p>

		<p>Such skills are highly valued by many employers, and, as a result, the collection of possible career options for students of mathematics is diverse and growing. A math major can prepare you for jobs in the actuarial sciences, mathematical modeling, operations research, statistics, cryptography, and mathematics education; as well as for graduate school in engineering, mathematics, statistics, and other technical fields. A strong background in mathematics is also necessary for research in many areas of computer science and social science. In addition, mathematics provides an excellent background for entry to jobs in business or admission to MBA programs, law school, public health programs and others.</p> <p>Notable Math Majors include Steve Ballmer, BA Applied Mathematics &amp; Economics, Harvard, Former CEO of Microsoft; Harry Blackmun, AB Mathematics, Harvard, Former Associate Justice of the US Supreme Court; Sergey Brin, BS Computer Science &amp; Math, Maryland, Co-Founder of Google; Mary Erdoes, AB Mathematics, Georgetown, CEO J.P. Morgan Asset Management; Reed Hastings, BA Mathematics, Bowdoin College, Co-Founder &amp; CEO of Netflix; Danica McKellar, BS Mathematics, UCLA, Actress; and David Robinson, BS Mathematics, Naval Academy, 10-time NBA All-Star.</p>
Mechanical Engineering	None for non-majors	<p>Mechanical is the broadest of all engineering disciplines. It deals with diverse engineering problems in solid mechanics, fluid dynamics, aerodynamics, heat transfer, energy conversion, vibration, design, manufacturing, controls, material science and electromechanical systems. The undergraduate program includes a foundation in mathematics, science, and engineering sciences. The two key elements of the mechanical engineering undergraduate program are laboratory experience and design experience. Mechanical engineers are employed in almost every industry. If there are moving parts or if energy is converted from one form to another, a mechanical engineer was responsible for the design. Mechanical engineers are employed in significant percentages in almost all industrial and governmental organizations that employ engineers. UW graduates are employed at more than 700 companies and in all 50 states. Mechanical engineers find</p>

		employment opportunities in industries such as automotive, aerospace, manufacturing, defense, electric utilities, chemical and oil/gas.
Microbiology	CHEM 1020: General Chemistry; LIFE 1010: General Biology	Microbiology is the study of life forms too small to be seen without magnification. Microbes include the bacteria, fungi, protozoa, algae, and sub-cellular agents like the viruses, prions, and viroids. The science of Microbiology includes numerous sub-specialty sciences that reflect the diversity of microbial life forms (e.g. bacteriology, virology, and mycology, etc.) as well as other sub-specialties that reflect their significance in applied areas like medical microbiology/infectious diseases, immunology, microbial ecology and bioremediation, food microbiology, industrial microbiology, and biotechnology. Areas of basic sciences like biochemistry, molecular biology, and molecular genetics are also important sciences in Microbiology. Throughout its history, Microbiology has played key roles in the development of our understanding of basic biochemical and genetic processes, control of infectious diseases, production of increased food supplies, and production of numerous commercial products that continue to enrich the quality of our lives.
Molecular Biology	CHEM 1020: General Chemistry; LIFE 1010: General Biology	The University of Wyoming's molecular biology program provides students with the education and research experience needed to excel in biological research and biotechnology. The emergence of molecular biology has blurred the distinctions previously drawn between biochemistry, microbiology, genetics, zoology, and botany by identifying the many common, unifying principles that are the essence of all life forms. The goal of the Department of Molecular Biology at the University of Wyoming is to introduce students to these principles and undertake fundamental research to extend the frontiers of biology. But our students are prepared for more than rural America. The world is more complex, and solving problems and being competitive in the work place requires new skills and new solutions. Our molecular biology degree students are educated with tools for success in the 21st Century. They are as comfortable working in the small towns of Wyoming as they are in Los Angeles, Houston, or New York City.
Music, Music Education, Music Performance	Music 1000, World Music, Aural Theory I, Written Theory I, Jazz Theory and	Offering a curriculum that is innovative, diverse and creative, the UW Department of Music prepares students for a life that meets 21 <sup>st</sup> century challenges. Coursework and departmental ensembles offer paths to grow as a life-long musician, develop creative thinking skills, team building, discipline, cultural understanding, and dedication to

	<p>Improvisation I, Recording Technology, Music Technology, Symphonic Band, Western Thunder Marching Band, <i>Bel Canto</i> Women's Chorus, Singing Statesmen, Collegiate Chorale, Jazz Ensembles (vocal and instrumental), Chamber Orchestra, UW Symphony Orchestra</p>	<p>excellence; traits that resonate not only with music, but with <b>all fields and occupations</b>. Our comprehensive Bachelor's degree in music education (<b>BME</b>) trains students to become leaders in K-12 music classrooms teaching general music skills, directing choirs, orchestras, bands, and jazz ensembles. For those who aspire to perform, dedicated teacher/artists guide students in the Bachelor's degree in music performance (<b>BM</b>) to become accomplished musicians through weekly studio lessons and pre-professional training ensembles. Complementing courses in music history, music theory, world music, composition and improvisation, a variety of regional, national, and international performance opportunities offer students experiences that advance musicianship skills and artistic, cultural expression. Recognizing the broad scope that is the world of music, the Bachelor of Arts degree (<b>BA</b>) offers courses that address non-traditional musics, digital recording and music technology, music composition (art music/contemporary commercial music) and prepares students for any career that that demands discipline, creative thinking, cultural understanding, and the ability to work exceptionally well within a group.</p>
Nursing	<p>LIFE 1010: General Biology</p>	<p>The "Basic BSN" is an on-campus BSN option for students who want to become a registered nurse and earn the Bachelor of Science in Nursing degree. The school accepts up to 48 students into the nursing major each year. The University of Wyoming Fay W. Whitney School of Nursing boasts a "small school" atmosphere. Learning facilities include state-of-the-art classrooms and Clinical Simulation Center. While classes are based in Laramie, clinical sites are mainly in Laramie and Cheyenne with travel being the responsibility of the students. The capstone practicum in the spring semester of the senior year may require a student to travel to and/or live in one of our Wyoming communities for clinical placement.</p>
Petroleum Engineering	<p>None for non-majors</p>	<p>Petroleum Engineering involves all aspects of oil exploration and development, from identifying and characterizing the reservoir through drilling and completion to production. Petroleum engineers also find new ways to extract oil and gas from older wells and apply new technology to uncover resources that just several years ago were unimaginable. UW offers courses that prepare students for careers in petroleum and energy related fields. Petroleum engineering is based upon sound preparation in mathematics, physics, chemistry and geology. Combining these fundamentals with computer programming, materials science, fluid mechanics and thermodynamics Petroleum Engineers develop and apply new technology to recover hydrocarbons from conventional and unconventional reservoirs, such as oil shale, tight gas sands, tar sands and offshore oil and gas fields.</p>

Philosophy	PHIL 1000: Intro to Philosophy; PHIL 2420 Critical Thinking	<p>The Department of Philosophy offers a <a href="#">Bachelor of Arts degree in Philosophy</a>, as well as a variety of minors to suit student interests: <a href="#">Minor in Philosophy</a>, <a href="#">Minor in Ethics</a>, and <a href="#">Minor in Environmental Values</a>.</p> <p>The course of study is designed to provide a curriculum for students that enhances critical thought and logical analysis, as well as an introduction to some of the most important philosophical topics and traditions from the ancient world to contemporary times. Majoring in philosophy offers students the opportunity for self-exploration, while also applying philosophy to practical, everyday problems one might encounter after graduation.</p> <p>Not only does the Philosophy department offer the "one-size-fits all" major course of study but allows a self-designed major course of study. Students interested in a self-designed major course of study should seek counsel from one of the department's <a href="#">advisors</a> prior to executing the course of study.</p> <p>Students may also choose to add Philosophy as a major field, while also pursuing another major, i.e., "double-majoring." Double-majoring in philosophy and another field of study will permit the student to develop a broad-based understanding of how to analyze and critically evaluate concepts that arise in the other major field of study.</p>
Physical Education Teaching	PEHE 1006: Personal Health	<p>Students in the Physical Education Teacher Education program (PHET ) are certified to teach physical education K12 in the public schools of Wyoming. The PHET program is a nationally recognized program for the integration of theory and practice. The PHET program is a nationally recognized program for meeting the NASPE/NCATE Initial Physical Education Teacher Education Standards. The PHET program offers individuals opportunity to combine certifications/endorsements in health education K12, adapted physical education K12, and coaching.</p>
Physics	PHYS 1050: Concepts of Physics; PHYS 1110: General Physics I (requires Math ACT 27, SAT 600, or MPE 5)	<p>Physics majors are highly sought after by employers for their analytical and problem-solving skills in addition to their knowledge of physics principles. Their advanced skills in math, simulation and modeling is another reason physics majors are highly marketable. Being able to design, develop and use devices and</p>

		equipment is also desirable. In addition to pursuing graduate degrees, our students go on to careers in the high-tech industry, government, engineering, computer and information systems, defense, and high school teaching. With a physics degree, you may find jobs with titles like application engineer, data analyst, programmer, modeler, lab technician, laser scientist, advanced equipment operator, weather forecaster, solar energy physicist, wind turbine engineer, astrophysicist, materials scientist, structural engineer, acoustic specialist and radiologist. Data on career paths of physics bachelors may be found at <a href="https://www.aip.org/statistics/physics">https://www.aip.org/statistics/physics</a> .
Physiology	LIFE 1010: General Biology	The Physiology degree prepares students to pursue careers in the Health Care professions including Medicine, Dentistry, Optometry, Physical Therapy, Medical Technology, and Physician's Assistant. The curriculum provides the knowledge and skills needed in these demanding fields, while efficiently preparing students for professional school entrance exams. Undergraduates are encouraged to participate in internships, independent research, or pre-professional societies that help them to become competitive for health-care related graduate or professional schools.
Political Science	POLS 1000: American & Wyoming Government, POLS 1200: Non-Western Political Cultures, POLS 1250: Introduction to Comparative Government; POLS 2460: Introduction to Political Philosophy; POLS 3600: American Political Thought	Political Science is the study of how societies govern themselves and interact with one another. Courses of instruction in Political Science are offered in the following sub fields: American politics; comparative government; international relations; political philosophy; public law; and public administration. Areas of focus include: analysis of government structures and decision-making processes; citizens' influence on government; policy content; philosophical concepts and traditions; the political and legal relationships, as well as the resolution of conflicts, among nations. Our goals are to help students better understand political processes and to develop the critical thinking and analytical skills necessary for effective participation in the political process, successful careers in the public and private sectors, and further study in law, political science, and public administration. An undergraduate degree in political science helps prepare you for positions in national, state, and local government, work in nonprofit agencies and interest groups, jobs in international organizations, law-enforcement, the military, teaching, journalism, banking, and the business sector, as well as for further study in graduate and law school. Many of our majors study abroad, do a semester in Washington, or intern with government

		<p>agencies or businesses. Famous alumni include: Dick Cheney, 46th Vice President of the United States from 2001-2009 under George W. Bush; Melvin Cox, Senior Vice President and General Counsel for Sun Chemical Corporation; and Kyndra (Miller) Rotunda, Law Professor at Chapman University and author of <i>Honor Bound: Inside the Guantanamo Trials</i>, based on her experience as a JAG officer in the U.S. Army.</p>
Psychology	PSYCH 1000 General Psychology	<p>Students completing the B.S. degree in Psychology acquire skills that reflect the discipline's commitment to both science and humanity, including information finding, research design, research ethics, technical writing, data collection, psychometric measurement, survey/questionnaire design, psychological testing, assessment, and quantitative statistical analysis. General skills include critical thinking, analytical skills, communication/interpersonal skills, leadership, teamwork, program/policy evaluation, civic engagement and service learning. A Psychology major acquires knowledge about psychological theories, constructs, and their applications, human cognition, emotion, and behavior, human interaction, group dynamics, human development, neuroscience, typical and atypical psychology, behavioral health care, mental health policy and treatment, environmental and contextual impact, interpersonal awareness, and physiological, emotional, cognitive and social determinants of behavior in diverse contexts and cultures.</p> <p>Students with a Bachelor's degree in Psychology go on to work in a variety of fields, including management, retail, advertising, banking, marketing, schools/colleges, courts, law enforcement, career counseling, medicine, sports, industry, government, politics, polling, and non-profit companies. With additional post-graduate education, psychology students can become clinical psychologists, counselors, school psychologists, forensic psychologists, researchers, doctors, psychiatrists, physical/occupational therapists, professors, social workers, and lawyers. Famous individuals who majored in psychology include Carol Dweck, Steven Pinker, Elizabeth Loftus, Gloria Estefan, Natalie Portman, and Jon Stewart.</p>
Rangeland Ecology and Watershed Management	REWM 2000: Principles of Rangeland Management (Requires prerequisite of LIFE 1000 or LIFE 1010)	<p>"Rangelands" encompass a broad category of land comprising more than 40% of the earth's land area. They are characterized by native plant communities and are managed by ecological, rather than agronomic methods. They may be referred to as grasslands, shrublands, deserts, or tundra.</p> <p>In Wyoming, rangelands occupy over 50 million acres (about 70% of the state), offering wide opportunities for the multiple uses of livestock and wildlife grazing,</p>

		<p>recreation, water production, open space, and natural beauty. Students are taught to understand and manage complex rangeland ecosystems.</p> <p>Students can design a curriculum that will allow them to focus on areas such as livestock management, wildlife habitat management, ecology, reclamation and restoration ecology, watershed management, hydrology, and business management.</p> <p>The rangeland ecology and watershed management curriculum is designed for students wishing to study ecology, utilization and management of rangelands and wild-land watersheds and related resources of forestry, recreation, wildlife management, soil science, botany and zoology. Degrees include Bachelor of Science, Master of Science and Doctor of Philosophy. REWM is accredited by the Society for Range Management (SRM).</p>
Religious Studies	RELI 1000: Intro to Religion	<p>Throughout history, religion has played an important role in shaping cultures and societies.</p> <p>Religious beliefs have inspired armies in their wars and leaders in their decisions. Religions have provided the foundation for ethical behavior and in many societies have been the primary source of education. In today's world, religions remain important, influencing our responses to the events of 9/11, the Middle East crisis, and other recent events in other regions around the world. Even in our own secular United States, religions and their beliefs play a major role in our debates over public policy.</p> <p>The Religious Studies Program offers a range of courses in the academic study of religions. These courses seek to acquaint students with religious beliefs and behavior, helping them to understand the ability of religions to define the world in which their adherents live and the power religions have to influence the behavior of their followers. Religious Studies courses cover a broad range of religions, both modern and historical. Some courses focus on understanding a single religion in a limited time period, while others compare aspects of different religions. Yet further</p>

		<p>courses focus on religious expression, studying how religious beliefs are depicted in literature, film, art and music. Many of these courses are offered by the Religious Studies Program, while others can be found in various departments, including anthropology, art, English, history and sociology.</p>
<p>Secondary Education: Agricultural Ed., Art Ed. (K-12), English Ed., Mathematics Ed., Modern Languages Ed., Science Ed., Social Studies Ed.</p>	<p>Follow program sheets available from each concentration for exploratory 1000-level courses.</p>	<p>Education is a rewarding and challenging profession that is constantly changing. Teachers have the opportunity to educate and nurture young adults to be lifelong learners, leaders, and responsible citizens. Secondary education offers the unique chance for teachers to share their passion and expertise for a specific subject. High-quality teachers are in demand all across the country, and our teacher program is nationally recognized. Our professors work with students to refine teaching skills and build confidence in pedagogy and content knowledge. We are extremely proud of our teacher education programs and of the graduates we produce to fill the classrooms in the public schools of Wyoming and the Rocky Mountain region, as well as schools across the country. We strongly encourage students who may be interested in pursuing an education program to explore our secondary programs and to contact professors with any questions or concerns.</p>
<p>Social Work</p>	<p>SOC 1000: Sociological Principles</p>	<p>The Division of Social Work offers 2 professional degree programs, that are accredited by the Council of Social Work Education (CSWE): the Bachelor of Social Work (BSW) and the Masters of Social Work Program (MSW). Both programs educate and prepare students to become effective, ethical, and competent social workers who are able to work in multiple practice settings by providing quality learning opportunities for promotion of social, economic and environmental justice for diverse populations. The BSW degree is an outstanding professional degree that prepares students for entry-level social work positions with individuals, couples, families, groups, neighborhoods, communities, and organizations. BSW graduates work across a wide variety of settings: hospitals, non-profit organizations, child protective agencies, domestic violence services, nursing homes, schools, advocacy centers, rehabilitation clinics, hospice agencies, crisis centers, substance abuse treatment facilities, psychiatric care facilities, community organizations, disaster relief, <i>environmental non-profit agencies</i>, and many other settings. The BSW program is offered from two locations in Wyoming: the Laramie campus and the University of Wyoming-Casper campus. Students apply to the BSW program during their sophomore year or after completing approximately 60 credit hours and on acceptance will complete the BSW degree in 2 years.</p>

		<p>The MSW degree is an excellent advanced degree and considered the ‘terminal degree’ within the profession. In addition to being able to provide above mentioned entry-level social work services, MSW graduates are capable of practice in complex and dynamic environments and are prepared for leadership roles in a multitude of practice settings. Students with a BSW degree can apply to the MSW program and complete a MSW degree in 1 year, plus 1 summer. Students with any other bachelor’s degree can apply to the MSW program and complete a MSW degree in 2 years.</p>
Sociology	SOC 1000: Sociological Principles	<p>Are you fascinated by how human groups function? Then a sociology degree may be for you. Sociology is the systematic study of the development, interaction, and behavior of organized human groups. Sociologists study a wide variety of subjects as the field of sociology is broad and diverse. Indeed, in UW’s department we research and teach social movements, social stratification, crime, religion, the evolution of social behavior, politics, globalization, immigration, and health.</p> <p>Today's sociologists use an assortment of methods of social investigation, including observation, surveys, statistical analysis, and controlled experiments to examine the many characteristics of societies, both large and small.</p> <p>Sociological concepts, theory, and methods provide powerful insights into the social processes that shape our lives, the problems we face, and the possibilities we can envision in contemporary society. The ability to identify, describe, and understand these processes – a capability which C.W. Mills called the "sociological imagination" – is a valuable tool for understanding and navigating an ever changing and increasingly complex world.</p> <p>A degree in Sociology prepares our students for a broad range of career options as well as graduate and professional studies. For example, some of our former students currently work in state and federal government departments/centers, find employment as research analysts, or pursue various careers in public health, Additionally, many of our graduate students move on to PhD programs and successful academic careers.</p>

Spanish	SPAN 1010: First Year Spanish I	<p>As a department of world languages, literatures, and cultural studies, we prepare our students for life and careers in an increasingly global world. Our program in Spanish enables students to combine their language training with interdisciplinary study of the regions where their language is spoken. The Spanish program has two track options: literature, culture and cinema or Hispanic linguistics.</p> <p>The Modern and Classical Languages department offers work leading to the B.A. degree with majors and minors in French, German, and Spanish, or concentrations for the B.A. in humanities/fine arts.</p>
Speech, Language, and Hearing Sciences	FCSC 2121: Child Development (Requires prerequisite PSYC 1000)	<p>Our bachelor's degree prepares you for graduate study in communication disorders. It typically takes four years, with the first two focused on university studies and the latter two focused on your major of speech, language, and hearing science. In your bachelor's degree, you will study the normal processes associated with understanding and producing speech and language. These include anatomy, physiology, and neurology. You will also study the normal development of speech and language in children. You will be introduced to disorders and clinical methods. Courses in related areas, such as anatomy, psychology, child development, statistics, and linguistics are also part of the program. You will observe clinical practice and can join our student association for fellowship, learning, and service opportunities.</p> <p>If you choose to be a speech-language pathologist, you will need a master's degree. Following your bachelor's degree, you can apply for a position in our accredited master's program in speech-language pathology where you will gain clinical knowledge and skills for educational and medical practice.</p> <p>If you prefer audiology, we will guide you on to doctoral programs (Au.D.) at other universities after your bachelor's degree. You will study types of hearing loss and etiological conditions, including genetic features, birth trauma, viral and bacterial infection, injury, and advancing age. You will learn to evaluate hearing sensitivity and speech understanding. Your audiometric test results will help physicians making medical diagnoses. You will recommend and fit hearing aids. You may also direct</p>

		<p>programs for preventing hearing loss due to noise exposure. You will work with clients across the lifespan, in hospitals, private practice, school districts, and industry.</p>
<p>Statistics</p>	<p>STAT 2000: Statistics and the World; STAT 2050: Fundamentals in Statistics (both classes have math coursework prerequisites or Math ACT 26, Math SAT 600, or MPE 4)</p>	<p>“The sexy job in the next ten years will be statisticians. Because now we really do have essentially free and ubiquitous data. So, the complimentary factor is the ability to understand that data and extract value from it.”  —Hal Varian, Chief Economist for Google</p> <p>Statistics is a field of study with a broad number of applications in the private and public sectors. Essentially the study of data and learning how to extract information from that data, statistics plays a large role in our public and private lives. Applications and uses for statistics can be applied to practically any field such as public policy, data analysis, social sciences and research, biostatistics, business applications, data science and mining, the medical and pharmacological fields, psychology, political science, veterinary science and even zoology.</p> <p>In demand in practically all sectors in society, as a statistician you can be involved with the development of new lifesaving drugs in pharmaceuticals, the shaping of public policy in government, the planning of market strategy in business, or the management of investment portfolios in finance. Careers in statistics generally can be quite lucrative, with statisticians of sufficient experience often able to earn six-figure salaries and there are a wide variety of exciting opportunities for statisticians. CareerCast has Statisticians being paid a median salary of \$79,990.</p> <p>“Overall employment of mathematicians and statisticians is projected to grow 33 percent from 2016 to 2026, much faster than the average for all occupations. Businesses will need these workers to analyze the increasing volume of digital and electronic data.”  —Occupational Outlook Handbook, Bureau of Labor Statistics</p>

		Notable Statistics Majors include Charles Simonyi, BS Engineering Mathematics & Statistics, Berkeley, Creator of Microsoft Office; Story Musgrave, BS Mathematics & Statistics, Syracuse, Former NASA Astronaut & Physician; and James Goodnight, BS Statistics, North Carolina State, CEO SAS Institute
Theatre and Dance	THEA 1100: Beginning Acting; THEA 1200: Introduction to Stage Design; THEA 1021: Academic and Professional Issues in Dance	<p>A Theatre and Dance major at the University of Wyoming acquires ten crucial skills:</p> <ol style="list-style-type: none"> <li>1. <b>Creativity.</b> The ability to solve problems in unique and unforeseen ways.</li> <li>2. <b>Adaptation.</b> The ability to adjust to obstacles as they present themselves.</li> <li>3. <b>Improvisation.</b> The ability to focus, think quickly and adapt.</li> <li>4. <b>Teamwork and Project Management.</b> A stage production is basically a business project. You have teams of people making up one team working to successfully accomplish a task on time and on budget. Being taught to stand at the helm of a theatrical production is a project management practicum.</li> <li>5. <b>Working with a Limited Budget.</b> To be imaginative, do more with less and find creative ways to get the results you want without spending money.</li> <li>6. <b>Conflict resolution.</b> How to appreciate, understand and effectively communicate with a widely diverse group of human beings.</li> <li>7. <b>Understanding the Human Condition.</b> You learn the human condition intimately through observation and painfully detailed introspection.</li> <li>8. <b>Presentation Skills.</b> To stand up confidently in front of a group of people and capably, effectively communicate a message while being motivating and even a little entertaining.</li> <li>9. <b>Customer service.</b> Learning to do the best you can and serving a consumer with courtesy, empathy, friendliness and a commitment to resolve issues.</li> <li>10. <b>Empathy.</b> The ability to understand and share the feelings of another.</li> </ol>
Wildlife and Fisheries Biology and Management — Professional	Life 1010: General Biology; Life 2022: Animal Biology	The Wildlife and Fisheries Biology and Management (WFBM) degree prepares students for careers in the management and conservation of wildlife populations and their habitats. Students develop a strong biology foundation and then take advanced courses on the ecology and management of fish, birds, and mammals. The WFBM degree emphasizes field experience and active learning. Students are required to participate in an internship program as well as various field projects, conduct independent research, and join

		professional societies. WFBM graduates have the knowledge and skills to compete for entry level positions in wildlife, fisheries or conservation biology, or to pursue graduate study in these areas.
Zoology	Life 1010: General Biology; Life 2022: Animal Biology	Zoology is the study of animals: their structure, physiology, evolution, and adaptation to their environment. Coursework includes topics relevant to all animals such as genetics, evolution, physiology, and behavior. Additional courses focus on specific taxa including invertebrates, fish, reptiles, birds, and mammals. Labs feature specimen-based taxonomic identification and field trips to study animals in their natural habitats. Zoology majors can pursue careers where a broad understanding of animal biology is essential such as veterinary science or captive animal care. The Zoology major also prepares students to pursue graduate study in more specialized aspects of animal biology. Did you know that the actor and comedian Ken Jeong received a Zoology bachelor degree before becoming a physician?