

Professors:

KLINT ALEXANDER, B.A. Yale University 1991; Ph.D./M.Phil. Cambridge University 1997; J.D. University of Virginia 1999; Professor of Law 2015.

MELISSA ALEXANDER, B.A. Yale University 1996; J.D. University of Virginia 1999; Professor of Law 2019, 2015.

JACQUELYN BRIDGEMAN, B.A. Stanford University 1996; J.D. University of Chicago 1999; Associate Dean for Academic Affairs and Professor of Law 2008, 2002.

KENNETH CHESTEK, B.A. Pennsylvania State University 1975; J.D. University of Pittsburg School of Law 1979; Professor of Law 2018, 2012.

JAMES M. DELANEY, B.A. University of Washington 1985; J.D. Gonzaga University School of Law 1992; LL.M. in Taxation, University of Florida 1997; Professor of Law 2013.

MICHAEL DUFF, B.A. West Chester University 1991; J.D. Harvard University 1995; Professor of Law 2012.

STEPHEN D. EASTON, B.A. Dickinson State University; J.D. Stanford University; Professor of Law 2009.

STEPHEN M. FELDMAN, B.A. Hamilton College 1977; J.D. University of Oregon 1982; J.S.M. Stanford University 1986; Jerry W. Housel/Carl F. Arnold Distinguished Professor of Law 2002.

MARK GLOVER, B.A. Washington University in St. Louis 2002; J.D. Boston University School of Law 2008; LL.M. Harvard Law School 2011; Professor of Law 2019, 2015.

DARRELL D. JACKSON, B.A. College of William and Mary 1987; J.D. George Mason University School of Law 1990; Ph.D. University of Colorado School of Education 2011; Professor of Law 2018, 2013.

SAM KALEN, B.A. Clark University 1980; J.D. Washington University 1984; Professor of Law 2014, 2009.

NOAH B. NOVOGRODSKY, B.A. Swarthmore College 1992; J.D. Yale Law School 1997; Professor of Law 2013, 2009.

JASON ROBISON, B.S. University of Utah 2003; J.D. University of Oregon 2006; LL.M. Harvard Law School 2009; S.J.D. 2013; Professor of Law 2019, 2015.

ALAN ROMERO, B.A. Brigham Young University 1990; J.D. Harvard University 1993; Professor of Law 2007, 2003.

MICHAEL R. SMITH, B.S. Florida State University 1982; J.D. University of Florida 1985; Professor of Law 2006.

Associate Professors:

DANIELLE R. COVER, B.A. University of Maryland 1994; J.D. Tulane University School of Law 1997; Associate Professor of Law 2018, 2014; Director of Legal Services Clinic.

LINDSAY A. HOYT, B.A. University of Wyoming 1999; J.D. 2003; Associate Professor of Law 2018; Assistant Dean.

TARA RIGHETTI, B.A. University of Colorado Boulder 2005; J.D. 2007; Associate Professor of Law 2019, 2014.

Assistant Professors:

LAUREN MCLANE, B.S. Radford University 2002; J.D. Seattle University School of Law 2008; Assistant Professor of Law 2018; Director, Defender Aid Clinic.

TEMPLE STOELLINGER, B.S. University of Wyoming 2004; J.D. 2010; Co-Director, Center for Law and Energy Resources in the Rockies 2013; Assistant Professor of Law 2019.

Academic Professionals:

AMY K. PEARCE, B.A. Central Michigan University 1997; M.L.I.S. Wayne State University 1999; M.Ed. George Mason University 2004; Assistant Librarian 2018; Head of Public Services.

DEBORA PERSON, B.A. Arizona State University 1981; M.L.S. Rutgers University 1992; Library Associate 1993; Administrative Law Librarian 2005, 1994.

TAWNYA PLUMB, B.A. University of Wyoming 1996; M.L.I.S. University of Texas at Austin 1998; Electronic Services and Assistant Librarian 2004.

Professors Emeritus

Debra L. Donahue, Harvey Gelb, Timothy Kearley, Jerry R. Parkinson, Dee Pridgen, Joel Selig, Elaine A. Welle

The College of Law was founded in 1920. The goal of the college is to provide a sound and thorough education in the law that will prepare the student to practice law in accordance with the highest standards of professional competence and responsibility. The emphasis in instruction is on analysis and understanding of legal principles and the development of skills necessary to the practice of the profession. The course of study will prepare a graduate to practice in any jurisdiction which has adopted the Anglo-American system of law.

The curriculum of the College of Law consists of three years of study within the college. Required courses necessary to basic legal

knowledge make up the first two semesters of study, while courses in the final four semesters are largely elective. Students become eligible to receive the Juris Doctor (J.D.) degree upon successful completion of 90 semester credit hours of law courses with a grade point average of at least 2.000.

The college acts as a law center for Wyoming. It serves lawyers, judges, and government by a program of continuing legal education for attorneys and others interested in significant legal developments, by research projects aimed at improving state law, and by publishing the Wyoming Law Review.

Accreditation

The college is approved by the American Bar Association and its graduates are eligible for admission to the bar in every state. A student planning to practice in a particular state should check its rules for admission to the bar.

The college is also a member of the Association of American Law Schools. Membership is conditioned upon the maintenance of an adequate teaching staff and library, the offering of a sound educational program and adherence to prescribed standards for the admission and graduation of students.

Prelegal Curriculum

There is no prescribed or required set of courses for prelegal work. A student must usually have a B.A. or B.S. degree before beginning the professional study of law. There are no restrictions on the field in which the degree is earned.

The objective of prelegal study should be to acquire knowledge and skills useful in the study and practice of law. College study should prepare the student for law school by developing language comprehension and use, understanding of political, economic, social and cultural institutions, and the ability to think logically and creatively. Courses promoting these objectives are included in the basic requirements for most undergraduate degrees. The choice of a major should be determined by the student's academic interest and professional objective in law.

Valuable background may be acquired through the study of English, history, philosophy, economics, political science, psychology, sociology, business administration, mathematics and the natural sciences.

For additional information, see the College of Law web site, (www.uwyo.edu/law).

Admission Requirements and Procedures

Admission to the professional curriculum in law is granted by the admissions committee of the College of Law. The College of Law restricts the number of entering students to a class size consistent with its facilities and its educational objectives. In evaluating an application, the committee considers the applicant's undergraduate college scholastic record and score on the Law School Admission Test (LSAT).

Other criteria relevant to the probability of success in the study and practice of law will also be considered.

1. Prior to beginning work in the College of Law, applicants must have a bachelor's degree from an accredited college or university, unless they have requested and been granted following exception:
 - a. An applicant who needs not more than 6 semester hours of college credit to qualify for a bachelor's degree may be admitted in exceptional cases to law school if the committee determines that the applicant has sufficient education and preparation for the study of law; has an outstanding undergraduate scholastic record; and has an approved program signed by the appropriate undergraduate official indicating that the remaining requirements for the bachelor's degree may be met by summer school attendance or by other means that will not interfere with the study of law.
2. Every applicant must take the Law School Admission Test. A packet giving information about the test, the dates on which it is given, and centers at which it can be taken, sample questions and an application form, may be obtained from Law School Admission Council, Box 2000, Newtown, PA 18940, by phone at (215) 968-1001, online at www.lsac.org.
3. Every applicant must register with the Law School Admission Council Credential Assembly Service, CAS. Registration may be done through the LSAC website (www.lsac.org). The CAS will prepare a report that is transferred to the college.
4. Every applicant must complete the electronic University of Wyoming College of Law Application through LSAC between

September 1 and April 30. Applications received by December 15 will be considered for early admission.

5. If admitted, official transcripts sent directly to the College of Law from each college attended must be on file in the Admissions Office at least 30 days before the student's registration date.

Application Deadline

An initial entering class will be selected from completed applications on file on April 30. Students who submit an application by December 15 will be considered for early admission. An application is complete only when the college has received the LSAT score, the CAS report, and the College of Law application form. Applications completed after April 30 will be considered in filling vacancies which occur in the entering class initially selected.

Admission With Advanced Standing

Transfer students are admitted only when the College of Law facilities and curriculum permit. A transfer student may transfer up to the number of credits the student could have earned had the student completed his or her first year at the University of Wyoming College of Law. Transfer credit will be given only for courses in which the student earned a grade of C or higher. Applicants admitted must satisfy the requirements for graduation established by the College of Law, including such other requirements as may be imposed as a condition of admission. Students interested in transferring should contact the College of Law for information concerning application procedures.

Academic Regulations

The Juris Doctor (J.D.) degree is awarded by the College of Law faculty to candidates who meet the following requirements:

For students matriculating before the fall 2013 semester, each student must successfully complete (grade of "D-" or better for courses taken at this school, grade of "C" or better for courses taken elsewhere) 89 credit hours (required for graduation) in accordance with the official curriculum as adopted by the College of Law faculty. At least 58 of these credits must be completed at the University of Wyoming College of Law. For students matriculating in or after the fall 2013 semester, each student must successfully complete (grade of "D-" or better for courses taken at this school, grade of "C" or better for courses taken elsewhere) 90 credit hours (required for graduation) in accordance with the official curriculum as

adopted by the College of Law faculty. Curriculum is subject to change at the College of Law Faculty's discretion, which may cause the annually updated catalog to be out of date. At least 59 of these credits must be completed at the University of Wyoming College of Law. Regardless of the matriculation date, students must complete at least 76 credit hours through graded (A-F) courses. Courses taken for S/U grades count toward the hours required for the J.D. degree only if the course is offered for the S/U grade only.

The course of study must be completed no earlier than 24 months (2 years) and not later than 84 months (7 years) after a student has commenced law study. No student shall be permitted to enroll at any time in coursework that, if successfully completed, would exceed 20 percent (18 hours) of the total coursework required for graduation.

Second and third year students may take up to six of 90 hours required for graduation in non-law school graduate level courses (online courses will not be approved) and apply them toward their law degree. Those students enrolled in a joint degree program may take up to 9 hours required for graduation in non-law school graduate level courses (online courses will not be approved) and apply them toward their law degree. Students must receive a letter grade of B or better for these non-law courses to count toward graduation requirements. Additionally, these courses will transfer in with a satisfactory grade of 'S' and will not impact their law school gpa. The College of Law automatically approves up to 9 hours of joint degree core courses that meet this grade requirement to transfer in toward their law degree (see Joint Degree section). If additional courses are needed outside of the core courses, these will be approved on a case-by-case basis. Students in a joint degree program who use 9 non-law credit hours toward their J.D. degree may reduce their required number of graded credits from 76 to 73 so that they can participate in other S/U offerings at the College of Law. To receive law school credit for the non-law course, a student will be required to earn a grade of B or better in the non-law course. The grade will not count, however, toward the student's law school GPA. The course will be counted as a "satisfactory" grade for purposes of the student's law school GPA. Students who wish to enroll in a non-law course on this basis must secure the prior approval of the course professor and the Associate Dean of Academic Affairs at the College of Law. Approval will be based on the student's submission of a brief written statement explaining how the

proposed coursework relates to and enhances the student's legal education. Students should be aware that non-law courses completed on this basis will not count toward the 76 hours that students must complete in graded courses as a requirement for graduation. The non-law coursework will instead be counted as credits the law students are permitted to take on an S/U basis.

To graduate, all students must earn a cumulative grade point average of 2.000 for all courses taken at the College of Law. If a course is repeated, both grades shall be included in computing the average. The student must have a baccalaureate degree. Candidates who meet these requirements are eligible for graduation at the end of any semester.

Academic Standing

The following requirements apply to any coursework at the College of Law. Courses that law students may complete outside of the College of Law do not count in calculation of the required College of Law grade point average (GPA).

In the first year, a student who fails to make a 1.800 GPA after the first semester, or fails to make a 1.900 cumulative GPA overall in the first year's work, shall be excluded from the College of Law. A student who at any time fails to make a passing grade in two of the courses for which the student is registered for any semester shall be excluded from the College of Law.

A student who enters the second year with a GPA lower than 2.000 but at 1.900 or above, or who fails to maintain a 2.000 cumulative GPA after the first year, shall be placed on probation. A student on probation who does not attain an overall grade point average of 2.000 within one semester shall be excluded.

A student excluded from the College of Law may petition the faculty for reinstatement. The faculty may, in its discretion, reinstate the student upon receipt of satisfactory evidence of extenuating circumstances or marked improvement in grades and study habits. Reinstatement may be subject to conditions, including, but not limited to, the repeating of any or all courses, as the faculty may decide. If a student's petition for reinstatement is denied, said students must wait 9-months before petitioning again for reinstatement. Also, all students are limited to two petitions for readmission. Students are strongly encouraged to include all information pertinent to the readmission decision in their initial petition. The entire faculty will automatically hear and consider a student's initial petition. In the event of a second petition

for readmission, a committee selected by the Dean will hear and consider the petition. The committee will present a report and recommendation to the faculty for adoption. Denial of a second petition is final.

Advanced Writing Requirement

As a condition of graduation, all students must complete an upper-level writing requirement consisting of a research paper of a minimum length of 5,000 words, exclusive of footnotes. All students must follow a designated standard citation form. Students must submit a detailed outline of the paper to the supervising professor, then must rewrite the paper at least once after the professor reviews the first draft. With the professor's approval, the student can meet the advanced writing requirement in any law school elective course, including a seminar, as long as the above requirements are met. The supervising professor must certify that the writing requirement has been fulfilled.

All student articles written for law review, whether published or unpublished, must have a supervising faculty member and otherwise meet all other provisions of the College of Law Advanced Writing Requirement. A student may also fulfill the requirement through an independent study or by writing a case note or comment for the law review, under the supervision of a professor. It cannot be satisfied through participation in a clinic.

Experiential Learning Requirement

For students matriculating in the fall 2016 semester and after, as a condition of graduation, each student must successfully complete no fewer than 6.0 credit hours in experiential learning courses. An experiential learning course must be a simulation course, a law clinic, or a field placement. Simulation courses provide substantial experience not involving an actual client, that (1) is reasonably similar to the experience of a lawyer advising or representing a client or engaging in other lawyering tasks in a set of facts and circumstances devised or adopted by a faculty member; and (2) includes: direct supervision of the student's performance by the faculty member; opportunities for performance, feedback from a faculty member, and self-evaluation; and a classroom instructional component (ABA Standard 303).

Students may fulfill the experiential learning requirement by successfully completing 6.0 credit hours in any of the following upper-class elective courses:

- Advanced Appellate Advocacy (6520)
- Advanced Legal Research (6990)

- Advanced Oil & Gas Law (6992)
- Advanced Persuasive Writing (6925)
- Alternative Dispute Resolution (6915)
- Business Planning (6560)
- Civil Pretrial Practice (6565)
- Clinic: Civil Legal Services (6930 or 6931)
- Clinic: Defender Aid (6932 or 6930)
- Clinic: Energy, Environ. & Natural Resources (6933 or 6930)
- Clinic: Family & Child Advocacy (6930 or 6934)
- Clinic: International Human Rights (6930)
- Clinic: Prosecution Assistance (6930 or 6936)
- Contract Drafting (6935)
- Estate Planning (6670)
- Estate Planning Practicum (6937 or 6930 or 6915)
- Externships (6960)
- Interviewing, Counseling & Negotiation (6166 or 6915)
- Summer Trial Institute (6850)
- Trial Practice (6850)

Note: classes may be removed from and/or added to this list each semester.

Curriculum

Required Courses: First (1L) Year Students (Additional courses cannot be taken the first year without special permission from a dean).

Fall Semester

- Civil Procedure I (6240) – 3
- Contracts I (6110) – 3
- Legal Research (6165) – 1
- Legal Writing I (6160) – 3
- Property I (6120) – 3
- Torts I (6130) – 4

Spring Semester

- Civil Procedure II (6340) – 2
- Constitutional Law I (6250) – 3
- Contracts II (6210) – 2
- Criminal Law (6140) – 3
- Legal Writing II (6260) – 2
- Property II (6220) – 2

Required Courses: Second (2L) Year Students (offered once per year)

- Evidence (6410) – 3
- Professional Responsibility (6420) – 3

Elective Courses: Second (2L) & Third (3L) Year Students (* subject to availability)

See Law Courses section

Graduation with Honors

The degree of Juris Doctor is awarded with honors if the student achieves a grade point average of 3.400 or better on all resident credit in the College of Law.

Honor Roll

Students enrolled in a minimum of 12.0 semester hours of law courses carrying A–F grades, and who have no semester grades of incomplete (I), are eligible for the President's Honor Roll and the Dean's Honor Roll. Students with a semester average of 4.000 will be named to the President's Honor Roll. First-year students with a semester average of 3.250 or better and second-year and third-year students with a semester average of 3.400 or better will be named to the Dean's Honor Roll.

Minimum Hours

The College of Law does not permit students to attend on a part-time basis. Students are required to take the full load of required courses during their first two semesters and to carry at least 9 credit hours in each of the remaining semesters of law study. Notwithstanding, if a student has less than 9 credits remaining in their final semester of study, then said student may register for only the number of remaining credits (e.g. if a student only has 4 credits left to graduate, that student will only be required to register for 4 credits). First year students will be allowed to take less than the full load of required courses only if they present exceptional circumstances, as determined by the Dean or his/her delegate.

Transfer Credits

The College of Law admits transfer students only in the fall of their second year. A student granted transfer admission may transfer credits earned in courses taken at another ABA-accredited law school toward a degree from the UW College of Law up to the number of credits that a traditional UW student would have earned during the student's first year at the University of Wyoming (32 credits as of the 2013–14 academic year). In addition, University of Wyoming law students who visit out for a semester or full year may also transfer credits from other ABA approved law schools, as long as 59 credits are completed at the University of Wyoming. The College of Law will also accept up to 15 hours of transfer credit from another ABA accredited school for an international student previously enrolled in an LL.M. or other post-J.D. program. To receive transfer credit from a course, a grade must be a "C" or better. Transfer credits are recorded on the JD transcript as an "S" (Satisfactory), instead

of graded credits. All transfer credits must be approved by the Associate Dean of Academic Affairs in advance.

Joint Degree Programs

JD/MA in ENR Program

A joint Juris Doctor/Master of Arts of Environment and Natural Resources degree is available to all admitted law students upon application. Students in this joint degree program must take 18 credits outside the law school in ENR courses, and must take 12 law school credits from a menu of ENR related law courses to qualify for this joint degree. Students in the joint degree program must also complete a supervised research project. Additionally, nine (9) credits of approved MA coursework (see Academic Regulations) will be applied to the Juris Doctor degree. Current core courses: ENR 5000, ENR 5900, ENR 5890.

JD/MBA Program

A joint Juris Doctor/Master of Business Administration program is available in the College of Law and the College of Business. This program will take approximately four years to complete. Students spend three years on-campus engaged in law studies. In either their second or third year, students will be enrolled full-time in the MBA Program, taking core Fall and Spring business courses followed by participation in an MBA Summer Project. The MBA Capstone course will be completed during the student's third year for a total of 38 MBA Program credits. Nine (9) credit hours of approved Law coursework will be transferred as elective hours to the MBA Program for a total of 47 credit hours. Additionally, nine (9) credits of approved MBA coursework (see Academic Regulations) will be applied to the Juris Doctor degree. Students successfully completing this lock-step program will earn dual Juris Doctor and Masters of Business Administration degrees.

Current core courses: MBAM 5102, MBAM 5103, MBAM 5104, MBAM, 5107, MBAM 5108, MBAM 5202, MBAM 5203, MBAM 5204, MBAM5206, MBAM 5207, MBAM 5208, MBAM 5309

JD/MPA Program

A student in the joint Juris Doctor/Master of Public Administration program must be admitted to both the College of Law and College of Arts and Sciences. The degrees are awarded concurrently by each college upon successful completion of the combined degree program requirements. In fulfillment of the J.D. degree, the College of Law will accept up to nine hours of MPA credits in courses approved by

the law faculty (see Academic Regulations). In fulfillment of the MPA degree, the College of Arts and Sciences will accept up to 12 hours of credits earned in specified courses in the J.D. program. For additional information regarding these joint degree programs, contact the College of Law or the joint program of interest. Current core courses: POLS 5000, POLS 5400, POLS 5410, POLS 5440, POLS 5684, POLS 5510, POLS 5690, POLS 5080, POLS 5060, POLS 5450, POLS 5460, POLS 5480.

Nonprofessional Degree Students

Graduate students from other colleges of the University of Wyoming may be permitted to take one or more law courses on an S/U basis for non-law credit when the following conditions are met: the law course taken is acceptable for their degree program and the prior written approval of the professor assigned to the course and the Associate Dean or Assistant Dean has been obtained. In order to obtain audit or visitor privileges, students must obtain prior written approval of the professor assigned to the course and the Associate Dean or Assistant Dean. For further information and requirements contact the Associate Dean of Academic Affairs, College of Law, Dept. 3035, 1000 E. University Ave., Laramie, WY 82071.

Course descriptions may be obtained online at www.uwyo.edu/law.

Law (LAW)

610. Contract I. 3 (Max. 3). A study of the elements of simple contracts, including offer and acceptance, consideration, conditions, defenses, and damages. The impact of the Uniform Commercial Code on contracts is considered.

6120. Property I. 3 (Max. 3). Covers two general areas. The first area is the rights that define property ownership, in relation to neighbors, the world, and others with interests in the property. Subjects include rights to use the land and its products, estates, concurrent ownership, and landlord-tenant law. The second area is private limitations on those rights, in the form of covenants and easements.

6130. Torts I. 4 (Max. 4). Study of the methods and policies for allocating risks of harm; intentionally inflicted harms; negligence in its general aspects and its application to products liability, landowners, and automobile traffic; emotional harms; defamation; and fraud. Principal areas of coverage typically include wrongful death, defenses, vicarious liability, strict liability, nuisance, products liability and defamation. If time permits we will also cover privacy, misrepresentation and other topics.

6140. Criminal Law. 3 (Max. 3). The sources of criminal law and the purposes of criminal punishment, the constituent parts of criminal conduct, including act (or omission), culpable mental state, result, and causation. These general principles are brought to bear on homicide and sexual assault. Also considers common defenses to criminal charges, including self-defense, necessity, duress, insanity, and intoxication. Students are required to consider the constitutional limits of the criminal law and the relationship of substantive principles to practice.

6150. Judicial Remedies. 3 (Max. 3).

6160. Legal Writing I. 3 (Max. 3). In this course students are introduced to the fundamentals of legal reasoning and analysis and the basics of legal writing.

6165. Legal Research. 1 (Max. 1). Introduction to paper and electronic resources that cover primary & secondary legal materials, including case law, statutes, agency regulations for federal and state jurisdictions, & treatises, journals, restatements, and other secondary sources. Discusses research plans and develops brief research strategies for hypothetical situations.

6166. Interview, Counseling and Negotiation. 3. Introduction to the basic lawyering skills of interviewing, fact investigation, counseling, and negotiation. Employs simulation exercises, self-critiques, and feedback from the faculty member as well as other students. In addition to the exercises, exposure to the theoretical underpinnings of the skills and examine some of the ethical issues involved in creating and maintaining professional relationships with clients and opposing parties and counsel.

6210. Contracts II. 2 (Max. 2). A study of the elements of simple contracts, including offer and acceptance, consideration, conditions, defenses, and damages. The impact of the Uniform Commercial Code on contracts is considered.

6220. Property II. 2 (Max. 2). First covers some private and public limitations on owners' property rights, primarily easements and zoning. The rest of the semester deals with acquiring ownership rights, possession and transfers, including the law relating to deeds and titles.

6240. Civil Procedure I. 3 (Max. 3). A study of modern practice in civil cases under Rules of Civil Procedure and other sources of procedural law. Civil Procedure I and its continuation, Civil Procedure II, cover all aspects of jurisdiction and other issues bearing on what court(s) may hear a case; choice of state or federal law; pleading; joinder of

claims and parties; class actions; discovery and other pre-trial procedures; summary judgment; non-jury and jury trials; appeals; and claim and issue preclusion.

6250. Constitutional Law I. 3 (Max. 3). Constitutional Law I is divided into two parts. Part I focuses on governmental structures. Part II begins our coverage of individual rights and liberties. Part I's coverage includes the power of judicial review, separation of powers, federalism, and congressional powers. Part II focuses on equal protection.

6260. Legal Writing II. 2 (Max. 2). This course builds on the first semester Legal Writing course by introducing students to: (1) more sophisticated aspects of legal reasoning, analysis and legal research; (2) the basics of persuasive legal writing; (3) the basics of appellate procedure and an appellate brief; and (4) the basics of oral advocacy.

6310. Business Organizations. 3 (Max. 3). Studies the law of agency relationships and business associations including partnerships, limited liability companies and corporations. Also considers the protection afforded investors by federal securities law. Listing of the above items is not intended to be all inclusive. Students are invited to consult with the instructor regarding specific information.

6320. Income Taxation. 3 (Max. 3). Focuses on the federal taxation of individuals. It includes taxation of compensation, installment sales as well as taxation of gains on property transfers.

6330. Trusts and Estates. 3 (Max. 3). A survey course that also serves as an introduction to Estate Planning. Covers the law of wills, trusts, and intestate succession. It also includes execution and revocation of wills; creation, modification, and termination of trusts; problems of construction; restrictions on testate transfers, transfers in trust and future interests. Covers some aspects of fiduciary administration, but not taxation. A prerequisite for Estate Planning.

6340. Civil Procedure II. 2 (Max. 2). A study of modern practice in civil cases under Rules of Civil Procedure and other sources of procedural law. Civil Procedure I and its continuation, Civil Procedure II, cover all aspects of jurisdiction and other issues bearing on what court(s) may hear a case; choice of state or federal law; pleading; joinder of claims and parties; class actions; discovery and other pre-trial procedures; summary judgment; non-jury and jury trials; appeals; and claim and issue preclusion.

6350. Constitutional Law II. 2 (Max. 2). Focus on constitutionally protected individual rights and liberties. Specifically, the following

topics will be covered: substantive due process, including the right of privacy; procedural due process; freedom of expression; and religious freedom.

6410. Evidence. 3 (Max. 3). A study of the means by which any alleged fact is established or disproved, including competency of witnesses; direct examination; cross-examination and impeachment; privileges; basic and special issues of relevancy; the hearsay rule and its exceptions; real, demonstrative, and documentary evidence; opinion and scientific evidence; judicial notice; and the responsibility of proof.

6420. Professional Responsibility. 3 (Max. 3). A study of the duties of attorneys to their clients and the public under the Model Rules of Professional Conduct and case law.

6510. Administrative Law. 3 (Max. 3). A review of administrative law practice and procedure, primarily at the federal level. The course begins with materials on the nature and function of administrative agencies. Agency rulemaking power, emphasizing federal and state Administrative Procedure Act (APA) requirements. Considers the adjudicative powers of administrative agencies, including an agency's obligation to afford persons due process of law. Finally, the course examines judicial review of administrative agency decisions.

6530. American Legal History. 3 (Max. 3). A study of the life of John Marshall, Chief Justice of the United States from 1801 until 1835.

6540. Antitrust. 3 (Max. 3). The study of the federal laws regulating monopolies and restraints of trade. The substantive provisions of the antitrust laws are relatively brief - there are only three main statutes - the Sherman Act (1890), the Clayton Act (1914) and the FTC Act (1914). These statutes entail broad prohibitions, and there are no detailed regulations like the tax code.

6550. Bankruptcy. 2 (Max. 2). A survey of the Federal Bankruptcy Act. Includes consideration of liquidation, reorganization, family farmers, debts of individuals, and the relationship of bankruptcy law and proceedings to Article 9 of the Uniform Commercial Code and the law of mortgages.

6555. Bioethics. 3. Analyzes the relationship between law and ethics in healthcare. Covers a wide range of contemporary issues such as euthanasia, assisted reproductions, and employee wellness programs. In addition to teaching substantive law, emphasizes critical thinking and provides students an opportunity to practice researching, writing, presenting, and delivering persuasive oral arguments.

6560. Business Planning. 3 (Max. 3). Focus is primarily on a problem involving several persons who are organizing a business entity. Consideration will be given to the characteristics of several kinds of business organizations and to making a judgment as to which organization should be used to house the business being set up. Considers tax and non-tax aspects with respect to business organizations.

6565. Civil Pretrial Practice. 3 (Max. 3). Includes the civil litigation process from the filing of a complaint and decisions related to the complaint, to discovery including written discovery and depositions, to pre-trial motions such as motions to change venue, to exclude evidence, and for summary judgment, to preparation for pre-trial conferences and trial. Sample cases provide the basis for the drafting of various discovery documents and motions. There will be no exam.

6570. Payment Systems. 3 (Max. 3). Focus on the use of negotiable instruments (such as checks, drafts, promissory notes, and certificates of deposit) to document debts and to make payments. Provides an overview of the banking system, the check collection process, and the use of various commercial instruments. Topics include liability for stolen checks, forged signatures, alterations, payment to impostors, insufficient funds, stop payment orders, post-dated checks, and restrictive endorsements. In addition, the rights of good faith purchasers are examined and the use of third parties (such as guarantors, sureties, and accommodation parties) to secure obligations are discussed.

6600. Consumer Protection. 3 (Max. 3). Covers three main topics: (1) the law of advertising and marketing; (2) consumer credit regulation; and (3) consumer warranty law.

6615. Taxation of Business Entities. 3 (Max. 3). Surveys the federal income tax consequences of major events in the existence of business entities and their owners including formations, contributions, operations, distributions, redemptions, and liquidations. Compares taxation of Subchapter C corporations, Subchapter S corporations, and partnerships. Students spend significant time on statutory interpretation and along the way consider policy issues that affect how the taxation of businesses is structured and enforced under the Internal Revenue Code.

6620. Bankruptcy Law. 3 (Max. 3). After briefly surveying state collection laws, considers the impact of federal bankruptcy law on secured and unsecured creditors. The primary focus of the course is on consumer bankruptcy

under Chapter 7 (liquidations) and Chapter 13 (reorganizations). Concludes with an introduction to Chapter 11 (business reorganizations).

6630. Criminal Procedure. 3 (Max. 3). Examines the constitutional rights of criminal suspects and defendants under the 4th, 5th and 6th Amendments of the United States Constitution. Much of the focus is on law enforcement practices and the constitutional principles that constrain the police.

6635. Domestic Violence Law. 3 (Max. 3). Helps prepare students to take part in the Legal Services Program, which has been expanded to include a Domestic Violence Legal Assistance Project.

6640. Family Law. 3 (Max. 3). From marriage to divorce, property distribution, child custody and the termination of parental rights, explores the many areas and facets of family law with an eye toward providing students with a firm doctrinal grounding, while preparing them for what they will face as they enter into practice. In the context of this exploration we look closely at many of the cultural issues noted above, and the effects those issues are having not just on the family and the law related to the family, but on society as a whole.

6645. Children and the Law. 3 (Max. 3). Covers a range of children's issues, including: dependency; termination of parental rights; adoption, child custody and support; parental rights; and the juvenile justice system. It is suitable for students considering a career in child advocacy, or who have any interest in the subject of juvenile law. Prerequisite: completion of first year of law school.

6660. Environmental Law. 3 (Max. 3). Provides an overview of the broad field of environmental law, with an emphasis on the major federal environmental statutes such as the National Environmental Policy Act, the Endangered Species Act, the Clean Air and Clean Water Acts, and statutes regulating both hazardous wastes and toxic chemicals in commerce. In considering these various statutes, we consider both their substantive requirements and their conceptual approaches to environmental protection. Touches briefly on issues such as the role of states in implementing these national laws, various approaches to enforcement of these laws, common-law doctrines relevant to environmental protection, and economic aspects of environmental law.

6665. Education Law. 2. Study of law as it applies to public and private education in America, including federal and state regulation of education, constitutional rights of students and teachers, school financing, desegregation and affirmative action, and equal opportunity in education. Introduction to the most

important legal issues relating to primary and secondary (K-12) education, and to a lesser extent issues concerning higher education.

6670. Estate Planning. 2 (Max. 2). Applies estate and gift tax principles in a survey of estate planning principles and techniques. Traditional estate planning tools including wills, trusts, and durable powers of attorney are discussed as well as post-mortem planning, administration issues, and planning for special situations, such as owners of closely held businesses, entrepreneurs, and the disabled.

6675. Gift and Estate Taxation. 2 (Max. 2). Focuses on the federal estate and gift tax consequences of wealth transfers. Students learn to analyze the federal estate and gift tax section of the Internal Revenue Code. *Prerequisites:* income taxations, trusts and estates.

6680. Federal Courts. 3 (Max. 3). Examines the themes of separation of powers and federalism by scrutinizing the jurisdiction of the federal courts. Covers justiciability doctrines (standing, ripeness, and mootness), congressional power to control federal court jurisdiction, constitutional and statutory parameters of federal question jurisdiction, federal common law, basic contours of litigation under 42 U.S.C. 1983, state sovereign immunity and the Eleventh Amendment, and the various abstention doctrines.

6685. Health Law. 3. Introduces students to a wide variety of law governing health care. Study professional licensing and liability, institutional regulation and liability, EMTALA, ERISA, the Affordable Care Act, Medicare, Medicaid, and fraud and abuse laws. Provides a critical first step for students interested in specializing in health law and an overview for any general practitioner.

6700. Indian Law. 3 (Max. 3). Surveys the law that applies to Native Americans and tribal governments. Deals primarily with federal law because of the unique relationship between the federal government and tribes, which are sovereign entities, and because federal law controls most Native American activities. The main issues are jurisdictional; that is, they concern the allocation of legislative (or regulatory) and judicial (both civil and criminal) jurisdiction among federal, tribal, and state governments.

6710. Insurance Law. 2. Discussion of all types of insurance from the point of view of an attorney advising clients and of a consumer. It is relevant and important for those going into any aspect of the law as insurance is involved in most law from business to litigation to domestic to estate planning. Covers standard insurance policy language, as well as case law and practical ideas for dealing with insurance.

6715. Immigration Law. 3 (Max. 3). Practical approach to topics such as the standards for admission of immigrants; nonimmigrant visas for students, workers and tourists; regulation and exclusion of undocumented aliens; legal procedures for admission, exclusion and deportation; refugee law; and citizenship law. Additionally, legislative history and policy behind applicable legislation and case law is discussed. *Prerequisites:* completion of the first year of law school.

6720. International Law. 3 (Max. 3). Covers international law in its classic sense—public international law, or “the law of nations” as it’s referred to in the Constitution. Looks at topics such as the sources and evidence of international law, sovereignty, the relationship of international law to national law, the bases of national jurisdiction, the international use of force, human rights, etc. However, modern public international law also includes areas of more immediate interest to practicing lawyers, such as conflicts between nations over which one has the right to assert jurisdiction over certain activities, international extradition, and immunities from jurisdiction.

6725. Intellectual Property. 3 (Max. 3). Introductory overview of principles of intellectual property protection particularly trademark, copyright and patent law. USA law will be integrated into a comparative analysis of International intellectual property law.

6730. Jurisprudence. 3 (Max. 3). Examines American legal thought from the nation’s inception through today. Discusses issues related to the nature of law, the nature of judicial decision making, the relationship between law and society, and the like.

6735. Native American Natural Resources Law. 3 (Max. 3). Examines federal and tribal law, (chiefly statutes, regulations, cases and treaties), governing environmental regulation and management of tribal land water minerals, fish and wildlife, and cultural resources. Explores the federal trust doctrine, aboriginal title, reserved rights, allotment, and the tribes-as-states-doctrine.

6740. Labor Law. 3 (Max. 3). Deals with labor law in the private sector. Surveys the establishment of a collective bargaining relationship between employers and unions, the subsequent negotiation of a collective bargaining agreement resulting from that relationship, the administration of that agreement through its grievance-arbitration provisions, and the economic weapons used by parties to various kinds of labor conflicts.

6745. Employment Law. 3 (Max. 3). Examines a variety of laws, regulations and legal theories governing the workplace and the

employment relationship. In particular we look at the at-will doctrine and its exceptions, rules affecting the establishment of the employment relationship and rules affecting the termination of the employment relationship.

6750. Law and Economics. 2 (Max. 2). The use of microeconomic theory to assess the economic efficiency and equity consequences of alternate legal structures.

6755. Legislation. 3 (Max. 3). Examines how statutes are made and applied. Priorities are 1) legislative process in Congress and the state legislatures (especially Wyoming), and; 2) statutory interpretation tools and techniques.

6760. Local Government Law. 3 (Max. 3). Examines the organization, powers, responsibilities, liabilities and financing of units of local government, including counties, cities, school districts and other special districts. Interrelationships among local governments, the states and the federal government are studied. Leading judicial decisions as well as state and federal constitutional and statutory provisions will be assigned. Particular emphasis is placed on the law of Wyoming and other western states.

6765. International Business Transactions. 3 (Max. 3). Overview of international business transactions involving private entities engaged in global commerce. Examines legal framework associated with planning, implementation, and enforcement of international agreements concerning sale of goods, trade of services, and transfer of technology. Impact of relevant international organizations and emerging substantive international commercial law with social obligations of multinational enterprises. *Prerequisite:* completion of first year of law school.

6775. International Human Rights. 3 (Max. 3). An examination of norms, institutions and problems relating to international human rights law. Addresses civil and political rights questions (including the expanded use of international criminal law as a means of enforcing universal values), social and economic rights (including access to medicines) and select group rights issues. *Prerequisites:* completion of the first year law school curriculum.

6790. Oil and Gas. 3 (Max. 3). A study of the law regarding private property interests in oil and gas. Subjects include the acquisition, transfer, lease, and assignment of oil and gas interests; rules and contracts governing the relationships among surface owners, oil and gas lessors, oil and gas lessees, and neighboring owners; and government regulation.

6800. Public Lands. 3 (Max. 3). Examines the law governing management of the federal public lands/national parks, national forests, wildlife refuges, BLM lands, etc. Among other

laws, we study NEPA, General Mining Law of 1872, Mineral Leasing Act of 1920, National Forest Management Act of 1976, Taylor Grazing Act, Federal Land Policy and Management Act, Endangered Species Act, and Wilderness Act In addition to examining Congress’ prescriptions for public land management and the constraints it has imposed on land managers, the course also explores how the public and politics influence public land policy and decision making.

6810. Real Estate Finance. 3 (Max. 3). Begins with some study of the law and practice relating to real estate transactions, deeds, and titles. The rest of the semester covers the law and practice relating to mortgages, foreclosure, and other financing issues in residential and commercial real estate transactions.

6830. Secured Transactions. 3 (Max. 3). Financial institutions and other businesses often take an interest in a debtor’s personal property (such as goods, equipment, inventory and accounts) to secure payment of a debt or performance of an obligation. Deals with the law governing security interests in personal property which is embodied primarily in Article 9 of the Uniform Commercial Code.

6840. Securities Regulation. 3 (Max. 3). Considers the responsibilities and liabilities of a company and various persons involved in the public offering of securities, including the filing of a registration statement, and other disclosure matters. Deals with the definition of the term “security” and possible exemptions for securities offerings. Covers securities fraud under SEC Rule 10b-5 including, inter alia, insider trading. Corporate disclosure requirements in connection with matters such as proxy rules and in other contexts are also considered. Some attention is given to disclosure requirements in connection with mergers and acquisitions, takeovers, and tender offers.

6850. Trial Practice. 3 (Max. 3). Trial Practice is a rigorous learn-by-doing course designed to build courtroom skills. Through a combination of exercises, lectures, demonstrations, drills and complete trials, students are prepared to advocate before judges and juries. The first half of the course focuses on basic examination and exhibit skills, including direct, cross, redirect, making and responding to objections, and the introduction and use of real and demonstrative evidence. In the sixth week, students conduct bench trials. The second half of the course builds on the basic skills and covers advanced ones, including examination of expert witnesses, opening statement, closing argument and voir dire. Jury trials are conducted in the final two weeks.

6860. Water Law and Policy. 3 (Max. 3).

A study of the allocation and reallocation of water resources with particular emphasis on prior appropriation systems in the Western United States. Riparian systems and ground-water management are also addressed, along with interstate conflicts, federal water rights, federal-state relations, and the effect of environmental laws on water allocation and the exercise of water rights.

6865. Natural Resources Law. 3 (Max. 3).

Comprehensive view of the general law governing natural and environmental resources. Students will learn to understand how our legal system has organized the various problems of allocation, use rights, duties and limitations, and governance, in the context of establishing rules governing human use of the earth's natural endowment. *Prerequisite:* completion of first year of law school.

6875. Hazardous Waste and Water Pollution Law. 3 (Max. 3).

Examines the Clean Water Act, Resource Conservation and Recovery Act, and the Comprehensive Environmental Response, Compensation, and Liability Act. These highly complex federal statutes, applicable nationwide either directly or via state-implemented programs, regulate pollution of water; govern industrial generation, handling, and cleanup of hazardous substances; and establish liability and enforcement standards.

6880. Criminal Adjudication. 3 (Max. 3).

A study of the post-investigative phase of the criminal process: from charging decisions through sentencing and appeals. Topics covered include: the decision to prosecute; bail and pretrial release; grand jury and preliminary hearing practice; jury-related issues, such as pretrial publicity, Batson, and deliberative secrecy; criminal discovery; the role and responsibilities of defense counsel and of the prosecutor; defendants' rights to presence, confrontation, and to present a defense case; verdicts; sentencing and appeals.

6885. Law Office Management. 1 (Max. 1).

This is a "how-to" course which introduces students to the law office as an operating business. This course covers various aspects of establishing and operating a law office, including: attorney timekeeping and client billing; establishing fees rates and fee agreements; revenue projections, record and file management and conflict management systems. *Prerequisites:* completion of the first year law school curriculum.

6890. Land Use Law. 3 (Max. 3). Deals primarily with public methods of making decisions concerning the use and development of land. Land use decisions range from the issuance of building permits or variances

to zoning to long-range planning. Examines tensions between private and public interests (private landowners, community residents, developers, business persons, and city/county officials) over the use of private property, the legal principles that inform the possible resolutions of these tensions and define governmental authority, and the implications of land use regulation for the exercise of other rights, such as free speech.

6910. Seminar. 1-2.

6915. Topics in Law. 1-3. Specific subject matter varies each year and between each section because the course is normally taught by a visiting faculty or by a law faculty member or interdisciplinary team who wish to present a special topic not able to be offered on a regular basis. Students should check class schedules for current offerings each semester. *Prerequisite:* completion of first year of law school; consent of instructor required for non-law students.

6920. Legal Skills and Problems. 1-2.

6925. Advanced Persuasive Writing. 3 (Max. 3). Art and science of written legal persuasion. Specifically, course explores the nature of legal persuasion from the standpoints of numerous disciplines, including classical rhetoric, psychology, literary theory, and morality theory, and based on these principles, covers specific strategies lawyers can use to make their writing more persuasive. *Prerequisites:* LAW 6160 and LAW 6260, and completion of first year of law school.

6930. Legal Clinic. 2-3 (Max. 6). Supervised clinical training in law office and court procedures. Clinical programs available are the Defender Aid Program, Legal Services Program, and the Prosecution Assistance Program. *Prerequisite:* Students must have completed first year of law school.

6931. Clinic: Civil Legal Services. 3 (Max. 12). The Civil Legal Services Clinic has provided legal assistance to Wyoming citizens for over 20 years. Students represent low-income and marginalized individuals across the state who could not otherwise afford legal representation. The CLSC's mission is to provide legal services in a broad range of general civil legal matters.

6932. Clinic: Defender Aid. 3 (Max. 12). Provides representation to indigent persons in Wyoming state and federal courts. We represent clients pending trial, on direct appeal from their convictions, and handle post-conviction matters in state and federal court.

6933. Clinic: Energy, Environment and Natural Resources. 3 (Max. 12). Fall: Classroom component of the Clinic will provide a practitioner's view of key aspects of federal court litigation practice in cases involving

natural resources issues. Spring: Clinic will provide an overview of the Wyoming Administrative Procedure Act and the Wyoming statutes that govern the regulation of energy production, environmental protection, and natural resources management in Wyoming.

6934. Clinic: Family and Child Advocacy. 3 (Max. 12). Handle a wide array of cases including divorce, child custody, domestic violence protection orders, stalking orders, guardian ad litem appointments in juvenile and domestic relations cases, and other family law matters. In addition, law students represent children or their parents in child abuse and neglect cases, termination of parental rights, children in need of supervision and delinquency actions.

6935. Contract Drafting. 3 (Max. 3). Covers fact investigation and the role of the lawyer in a transaction proposed by the client, including possible negotiations with other parties; drafting a contract in Plain English; and the ethical obligations of a transactional lawyer, through simulations and problem-solving exercises. *Prerequisite:* LAW 6110.

6936. Clinic: Prosecution Assistance. 3 (Max. 12). The program is heavily involved with the Wyoming Attorney General's office, usually in representing the state in criminal appeals before the Wyoming Supreme Court. In handling these appeals, students are responsible for the entire preparation of appellate briefs and the presentation of oral argument to the Supreme Court.

6937. Estate Planning Practicum. 3 (Max. 12). Provides students the opportunity to work with low-income clients around the State of Wyoming in a transactional law setting. Prepare wills, powers of attorney, advance health care directives, deeds, affidavits of distribution and other probate documents for small estates and will learn how to plan an estate for beneficiaries who are minors or who have special needs.

6940. Independent Study. 1-2 (Max. 4). Research and writing in specialized or advanced areas of the law. Students are to contact a professor that has a background or interest in the students' topic area to determine if the professor will supervise the Independent Study. Students receive one credit hour for 50 hours of work or 2 credit hours for 100 hours of work.

6941. Independent Study: Clinic. 1-4 (Max. 4). Course is meant to allow students to receive credit for continuing work completed in conjunction with a clinic or live practicum. To qualify for credits a student must have completed at least one semester in a clinic or live practicum.

6945. Workers Compensation Law. 3 (Max. 3). Addresses essential aspects of workers' compensation laws including extent of coverage, the various levels and varieties of benefits provided, and how claims are established and enforced. The course will also consider the interaction of state workers' compensation laws with other laws.

6950. Law Review. 1-3 (Max. 6). Intensive research, writing, and editing of case note or comment and cite-checking of articles for the Wyoming Law Review. Satisfactory/unsatisfactory only. Law Review membership is required. Credit may be received in the third year only. Maximum six hours in academic career.

6960. Legal Externships. 1-3 (Max. 6). The externship program provides second and third year students with an opportunity to learn through practice by working directly with attorneys or judges for academic credit. Externship placements are limited to judges, government agencies and nonprofit organizations, and must be pre-approved by the College of Law faculty.

6970. Legal Competitions. 1-3 (Max. 3).

6990. Advanced Topics. 3 (Max. 9).

6991. Advanced Water Law and Policy. 3. Research projects within the fields of domestic, international, or comparative water law and policy. Focuses on the elaborate body of laws governing allocation and management of water in and around the Colorado River Basin – i.e., the “Law of the River.” Explore the Law of the River’s historical evolution and current composition as well as cutting-edge policy issues currently facing it. Writing-intensive format satisfies the College of Law’s Advanced Writing Requirement. *Prerequisite:* C or better in LAW 6860.

6992. Advanced Oil and Gas Law. 3. Simulate the work of an oil and gas attorney. Explore oil and gas financing arrangements including the farmout, JOA, and productions sharing agreements, drilling and service agreements, downstream marketing and purchase agreements, conveyances of oil and gas real property interests, the purchase and sale of petroleum properties, oil and gas development on federal lands, and title examination. *Prerequisite:* C or better in LAW 6790.

6993. Advanced Trust and Estates. 3. Focuses on topics related to the law of trusts, including fiduciary administration, modification, termination, and alienation of trusts; charitable trusts; and issues of trust interpretation and construction. Other topics may be covered as time permits. *Prerequisite:* C or better in LAW 6330.

Armed Forces Services

LTC George R. Riggin, Commander, Army ROTC
LtCol. Anthony Kusek, Commander, Air Force ROTC

It has been the consistent policy of the university in cooperation with the federal government to make courses in military science and aerospace studies available on a voluntary basis to all qualified students.

Academic credits for Army and Air Force Reserve Officers' Training Corps (ROTC) are applied toward baccalaureate and graduate degrees in varying amounts depending upon the degree plan of the student and as determined by the college concerned.

Army ROTC

Department of Military Science
207 Wyoming Hall, (307) 766-3390
FAX: (307) 766-3383
Web site: www.uwyo.edu/armyrotc

Professor:

George (Ryan) Riggin, U.S. Army, Field Artillery; B.A. University of South Carolina 2002; MBA Liberty University 2014; Professor of Military Science 2020.

Lecturer:

JEREMIAH SCHUCHARDT, Master Sergeant, U.S. Army; Senior Military Instructor 2019.

The Department of Military Science - Army ROTC faculty is composed of U.S. Army officers and senior noncommissioned officers. These officers hold bachelors' and masters' degrees in a variety of fields. Noncommissioned officers hold associate degrees in a variety of fields. Officers' military education includes completion of the Officer Basic Course and the Officer Advanced Course. Several faculty are graduates of the Army's Command and General Staff College and have completed military specialty schools such as: Flight School, Ranger School, Airborne School, Air Assault School, Special Forces School, Jumpmaster Course, Special Operations Training and Language School.

General Information

Army ROTC is a program which offers qualified college students the opportunity to graduate as officers and serve tours in the U.S. Army, the Army National Guard or the U.S. Army Reserve.

The four-year program is divided into two parts called the basic course and the advanced course. The basic course, consisting of 8 credit

hours, is usually taken during the first two years of college. No military obligation is incurred by enrolling in the basic course.

The advanced course, usually taken during the junior and senior years or during graduate school, involves 19 credit hours of study and a five-week Leadership Development and Assessment Course during the summer. Advanced course students incur a military obligation, and they receive up to \$500.00 per month in tax-free subsistence throughout the academic year.

Army ROTC is not itself a major. Participants pursue the degree of their choice and take Army ROTC as an elective program. Those who complete the program may receive federal commissions from the President of the United States.

Army ROTC offers a military science minor. Effective with the Fall 2015 semester, the requirements for a minor in military science are as follows:

ARMY 3010.....	3
ARMY 3020.....	3
ARMY 3025.....	1
ARMY 3026.....	1
ARMY 3030.....	3
ARMY 4010.....	2
ARMY 4020.....	2
ARMY 4015.....	1
ARMY 4016.....	1
ARMY 4025.....	1
ARMY 4026.....	1
HIST 2020 or HP 4900.....	3
Total credit hours	22

The military science minor, encompassing 22 credit hours, will prepare selected students for commissioning and establish a sound basis for their future professional development.

To be eligible for a commission, U. S. citizens must meet prescribed physical, intellectual, and moral standards in addition to completing Army ROTC studies and successful completion of Professional Military Education (PME) courses. These PME courses include written communication skills, military history and computer literacy. A two-year option is available for sophomore and junior students, students with prior military service (see below), and those completing a masters program.

In the Army ROTC classroom the student is exposed to a wide variety of subjects designed to instill confidence, self-discipline, integrity and responsibility. Students gain an

appreciation for the role of national defense, and learn what a leader must be, know and do in order to gain the respect and support of their subordinates.

Skills learned in Army ROTC, including resource management, leadership and planning are valuable and complement any university major. Young commissioned officers returning to civilian sectors after military service find an abundance of career opportunities.

Uniforms, Pay and Allowances

All uniforms, books and other instructional materials required in Army ROTC are provided to basic and advance course students at no cost. The cadet uniform is the same as the U.S. Army uniform except for the distinctive ROTC insignia.

Advanced course participants are paid a tax-free subsistence allowance of up to \$500.00 per month during the school year. During the summer training period students receive pay, travel, rations, quarters, clothing, and medical and dental services.

Two Year ROTC Program

The two-year program is designed for community college graduates and university students of sophomore or junior standing who did not take Army ROTC during the first two years of school. The program may also apply to seniors and graduates who have at least two years remaining in post graduate study.

To enter the two-year program, students must first attend a paid 28-day internship during the summer or be a veteran who has graduated from advanced individual training.

Special Scholarship Program

Two-, three-, and four-year scholarships are offered by Army ROTC. These scholarships pay full tuition, laboratory fees and a \$1200 per year book fee. While on scholarship, the student receives up to \$500.00 a month during the school year. In addition to active duty scholarships, Army ROTC offers scholarships to students wishing to join the U.S. Army Reserve or Army National Guard upon commissioning. These reserve scholarships also pay full tuition, laboratory fees, book fees, and up to \$500.00 a month. Graduate students and undergraduate students are eligible to apply for the two- and three-year scholarships. These scholarships are awarded by the Professor of Military Science. Students do not have

to be enrolled in ROTC to apply for these scholarships. Certain restrictions apply. High school juniors and seniors seeking a four-year scholarship should contact the Professor of Military Science, Army ROTC, Dept. 3167, 1000 E. University Ave., Laramie, WY 82071. College students desiring a scholarship should contact the Professor of Military Science in 154 Wyoming Hall, (307) 766-3390.

Scholarships are offered to ROTC cadets from several military associations. The Reserve Officers Association (ROA), Association of the U.S. Army (AUSA), Cowboy Battalion Alumni Association (CBAA), the United Services Automobile Association (USAA) and First Command offer annual cash awards to ROTC cadets.

Room and board scholarships are available to students who enroll in Army ROTC. Scholarship awards are based on merit and the student's potential to become a commissioned officer. The number of scholarships and dollar amount vary dependent on funds available. Room and board scholarships may only be used in UW residence halls or university apartments.

Leadership Laboratory

Leadership laboratory provides instruction that complements the classroom. This time provides practical application on subject matter taught in class. Leadership and management dynamics are inherent in this practical application. All students enrolled in a military science course must enroll in the appropriate leadership laboratory unless consent is obtained from the Professor of Military Science. Training includes land navigation, first aid, communications, basic rifle marksmanship, drill and ceremonies, decision making, squad movement and problem solving. This instruction is cadet planned and presented with immediate instructor feedback. The goals of this period are to instill self-confidence, self-discipline and responsibility in each cadet.

Land navigation skills are practiced in a variety of terrain locations near campus. The training instills trust and confidence in the cadet's ability to accurately plot and follow a compass course. Communication, such as radio, telephone and interpersonal skills, are taught and practiced. Marksmanship is taught in the Half-Acre rifle range and on other ranges, weather permitting. Finally, drill and ceremonies teaches methods of organizing and moving groups of individuals in an orderly manner resulting in team building while establishing esprit de corps.

Veterans' Option

Veterans of active military service and members of the National Guard or U.S. Army Reserve may qualify to go directly into the advanced Army ROTC program if they will be an academic junior. In these cases, basic training fulfills the requirement of the first two years of ROTC (Basic Course). Academic freshmen and sophomores are not required to take basic course classes but are highly encouraged to do so. It is common for members of the National Guard to study to become commissioned officers via the ROTC program. The Simultaneous Membership Program (SMP) is a formalized program for advanced course Guard members and Reservists to combine their unit training with ROTC training. In many cases the SMP program will result in increased financial benefit to the individual.

Military Obligation

There is no military obligation for taking the basic course, freshman and sophomore years. When an individual starts the advanced course, he or she incurs an obligation. The nature of that obligation depends upon whether the individual elects to serve in the National Guard, the Army Reserve or the active Army, and whether the individual has an Army scholarship. Those who desire guard or reserve duty may contract specifically for that purpose. The guard and reserve obligation is six years of monthly training meetings and two years of inactive ready reserve (IRR). The active duty obligation is four years Active duty, and four years of inactive ready reserve (IRR).

Extracurricular Activities

Army ROTC offers a variety of activities which are designed to promote an interest in the military and provide relaxing, enjoyable leisure activities for cadets.

The Cowboy Battalion has its own Ranger Challenge team, which is a varsity-level team that competes with other universities in military skills such as orienteering and soldier skills. The battalion also has a cannon crew, mounted color guard, 10-miler team, Bataan Death March team, and participates in intramural sports.

The department periodically sponsors other activities such as rappelling demonstrations, ranger weekends, battlefield tours, leadership exercises and other adventure training, such as mountaineering, land navigation exercises, patrolling and wilderness survival.

Suggested Course Sequence

FRESHMAN YEAR: Fall		Hrs.
ARMY	1010	2
Lab (mandatory).....		0
PEAC	1272 (voluntary).....	1/2
ARMY	1011	1
ARMY	3060 (voluntary).....	1

FRESHMAN YEAR: Spring		Hrs.
ARMY	1020.....	2
Lab (mandatory).....		0
ARMY	1012	1

SOPHOMORE YEAR: Fall		Hrs.
ARMY	2010.....	2
Lab (mandatory).....		0
ARMY	2011	1
ARMY	2060 (voluntary).....	2
ARMY	3070 (voluntary).....	2

SOPHOMORE YEAR: Spring		Hrs.
ARMY	2020.....	2
Lab (mandatory).....		0
ARMY	2012.....	1
HIST	2020 (mandatory).....	3

JUNIOR YEAR: Fall		Hrs.
ARMY	3010.....	3
Lab (mandatory).....		0
ARMY	3011	1
ARMY	3025 (mandatory).....	1
ARMY	3070 (voluntary).....	2
ARMY	3015.....	1

JUNIOR YEAR: Spring		Hrs.
ARMY	3020.....	3
Lab (mandatory).....		0
ARMY	3012.....	1
ARMY	3026 (mandatory).....	1
ARMY	3016 (mandatory).....	1

SENIOR YEAR: Fall		Hrs.
ARMY	4010.....	2
Lab (mandatory).....		0
ARMY	4011	1
ARMY	3030 (voluntary).....	3
ARMY	4025 (mandatory).....	1
ARMY	4015 (mandatory).....	1
ARMY	4050 (voluntary).....	2
ARMY	3070 (voluntary).....	2

SENIOR YEAR: Spring		Hrs.
ARMY	4020.....	2
Lab (mandatory).....		0
ARMY	4012.....	1
ARMY	4026 (mandatory).....	1
ARMY	4016 (mandatory).....	1

Military Science (ARMY)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦Q]).

1010. Introduction to Military Science. 2.

Encompasses dynamics of leadership applicable to all careers through instruction in Rifle Marksmanship; Land Navigation; Leadership Laboratory; Field Training Exercises; U.S. Army Customs, Courtesies and Career Opportunities and various leadership dimensions.

1011. Basic Military Conditioning Level I. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

1020. Dynamics of Leadership II. 2. Second semester of a one-year series. Continues ARMY 1010.

1021. Advanced Military Conditioning Level I. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

2010 [2030]. Leadership Skills and Management. 2.

Studies principles and theories of leadership and team dynamics. Develops student leadership potential through the study of the values and attributes of effective leaders. Students gain self-confidence through the application of principles and techniques of leadership in a military environment. *Prerequisite:* ARMY 1010, 1020 or consent of instructor.

2011. Basic Military Conditioning Level II. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer

upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

2020 [2040]. Leadership Skills and Small Unit Management. 2.

Studies principles in small-unit management, tactics, operations and leadership. Develops students' self-confidence in their leadership ability through progressive application of knowledge, decision making, communication and control. *Prerequisite:* ARMY 2010 or consent of instructor.

2021. Advanced Military Conditioning Level II. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

2050. Internship: Leader's Training Course. 3.

A four week leadership practicum which orients students to U.S. Army, trains them in basic military skills, develops and evaluates their officer leadership potential, and qualifies them for enrollment in the ROTC Advanced Course Program. Increases confidence, self-discipline and decisiveness through physical and academic challenges. *Prerequisite:* sophomore standing or above.

2060. Competent and Confident Leadership. 2.

Interdisciplinary course whose aim is to encourage assessment of our obligations, commitments, and roles in society by inquiring into the nature of leadership and the responsibilities of both leaders and followers. Examines leadership traits that transcend the military aspect of leadership.

3010. Leadership and Tactics I. 3.

[O♦(none)] Studies leadership techniques and tactical operations at the small-unit level. Instruction covers the decision-making process, troop leading procedures, land navigation and operation orders. In-depth analysis of team/squad tactical procedures and techniques. Numerous student oral presentations and practical exercises. *Prerequisites:* ARMY 2010, 2020, basic camp or consent of department head.

3011. Basic Military Conditioning Level III. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

3015. Junior Staff Office Practicum I. 1.

This course provides a basic introduction to Army staff processes and the many diverse systems and processes within the Army that impact an officer's ability to successfully lead his/her unit. *Prerequisite:* This course requires concurrent enrollment in ARMY 3010.

3016. Junior Staff Office Practicum I. 1.

This course provides a basic introduction to Army staff processes and the many diverse systems and processes within the Army that impact an officer's ability to successfully lead his/her unit. *Prerequisite:* This course requires concurrent enrollment in ARMY 3020.

3020. Leadership and Tactics II. 3.

Studies platoon-level tactics and leadership techniques. Instruction covers the solving of complex tactical problems. Illustrates techniques for properly managing personnel, resources and time to accomplish organizational goals. Introduces Army staff functions and prepares students for successful completion of ARMY 3030. *Prerequisite:* ARMY 3010.

3021. Advanced Military Conditioning Level III. 0.5.

This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

3025. Conduct of Training. 1.

Introduces the Army's system of conducting training exercises. Covers prerequisite training, pre-execution checks, officer/NCO responsibilities, training presentation techniques, sustainment training and training assessment. *Prerequisite:* consent of instructor.

3026. Assessment of Training. 1. Introduces the Army's system of training assessment. Covers formal and informal after-action reviews (AARs); preparation for, conduct of, and goals of an AAR; and writing of Army after-action reports. *Prerequisite:* consent of instructor.

3030. Practicum in Leadership. 3. Encompasses Leadership Development and Assessment Course, a five week test of the cadet's leadership ability. Each cadet is evaluated in ten different positions. Positions include both garrison and tactical situations. Each position requires the cadet to plan, implement and execute a wide variety of tasks. The cadet must control all personnel under this command. The cadet is extensively evaluated by cadre Tactical Officer/Non-commissioned Officer on twelve leadership dimensions. Successful completion of the Leadership Development and Assessment course is required for commissioning. *Prerequisites:* successful completion of ARMY 3010 and 3020.

3050. Army ROTC Nurse Summer Training Program. 3. Allows Army ROTC nursing cadets to obtain college credit for nursing experience gained in an army hospital during nurse summer training program. Students practice military skills, leadership, clinical nursing, administrative and interpersonal skills. *Prerequisites:* ARMY 3010, 3020.

3060. Military Skills Practicum: Ranger Challenge. 1-4 (Max. 4). Encompasses training and intercollegiate competition in fundamental military skills. Students learn and compete in areas of physical conditioning training, land navigation, rifle marksmanship, rope bridging and other skills practiced during small-unit military operations. *Prerequisite:* consent of department or instructor.

3070. Cadet Professional Development Practicum. 2. Consists of attendance as an Army ROTC cadet at an Army specialty producing school including Airborne, Air Assault, Northern Warfare School or Mountain Warfare School. Offered for S/U grade only. *Prerequisites:* ARMY 1010, 1020, 2010 and 2020 and/or consent of department head.

4010 [4030]. Dynamics of the Military Organization I. 2. Studies and analyzes organization, resources and functions of military staff. Reviews formal staff problem-solving procedures, including student effective writing and briefing presentations. Introduces ethics and the military profession. *Prerequisites:* ARMY 3010, 3020 or consent of department head.

4011. Basic Military Conditioning Level IV. 0.5. This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

4012. Basic Military Conditioning Level V. 0.5. This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

4015. Staff Officer Practicum I. 1. Gives students practical experience in serving on an Army staff. Under supervision of an Army ROTC cadre member, students undergo training and conduct practical exercises in one of the following specialties: command and control, operations, personnel or logistics. *Prerequisite:* concurrent enrollment in ARMY 4010.

4016. Staff Officer Practicum II. 1. Gives students experience in serving on an Army staff. Under the supervision of an Army ROTC Cadre member, students undergo training and conduct practical exercises in one of the following specialties: command and control, operations, personnel or logistics. *Prerequisite:* concurrent enrollment in ARMY 4020.

4020 [4040]. Dynamics of the Military Organization II. 2. Introduces military law; planning and management of personal affairs; Army transportation, logistics and personnel management systems. Studies officer/NCO relations. Includes student writing and briefing presentations on assigned topics. *Prerequisite:* ARMY 4010 or consent of department head.

4021. Advanced Military Conditioning Level IV. 0.5. This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an

Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

4022. Advanced Military Conditioning Level V. 0.5. This class will instruct and evaluate students in military conditioning. Physical fitness and leadership expectations in the physical conditioning class increase each semester and build toward peak physical performance prior to commissioning as an Army officer upon graduation. Military leaders have always recognized that the effectiveness of Soldiers depends largely on their physical condition. Full spectrum operations place a premium on the Soldier's strength, stamina, agility, resiliency, and coordination. Satisfactory/Unsatisfactory only.

4025. Principles of Training Management. 1. Introduces students to the Army's system of training management. Covers principles and philosophy of training, training guidance, training cycles, soldiers/leader tasks, techniques for collective and multi-echelon training, as well as procedures for short-term planning. *Prerequisite:* consent of instructor.

4026. Preparation of Training. 1. Introduces the Army's system of training preparation. Covers short-range training plans, training meetings, development of timelines, publishing of training schedules, training and evaluation outlines, as well as rehearsals. *Prerequisite:* consent of instructor.

4050. Management Internship: Cadet Troop Leadership Training. 2. Conducted at an active Army installation. Students (under supervision) assume duties of and function as a junior commissioned officer for three-week period. Written evaluation of student's performance is returned. Offered for S/U grade only. *Prerequisites:* ARMY 3010, 3020 and consent of department head.

4975. Military Science Independent Study. 1 (Max. 2). A continuation of ARMY 4010 and 4020. Projects and events are set at the discretion of the professor and subject to change. *Prerequisites:* ARMY 4010 and 4020.

4976. Advanced Military Science Independent Study. 1. The purpose of this course is to instill leadership ability, technical and tactical skills, and professional values necessary for your completion of the UW Military Science program. Introducing students to small unit tactics, leadership positions, and developing the student's ability to make informed decisions in any military environment.

Air Force ROTC

Department of Aerospace Studies

110 Wyoming Hall, (307) 766-2338

FAX: (307) 766-2357

Web site: www.uwo.edu/airrotc

Professor:

ANTHONY KUSEK, Lt. Colonel, U.S. Air Force; B.S. Parks College 1995; M.A. Webster University 2007; Professor of Aerospace Studies 2019.

RICHARD LANDSVERK, Major, U.S. Air Force; B.S. Thomas Edison State College 2008; M.A. Bellevue University 2012; Professor of Aerospace Studies 2019.

SAMUEL R. SHEARER, Lt. Colonel, U.S. Air Force; B.S. University of Utah 1996; M.S. Troy State University 2003; M.A. Naval Postgraduate School 2004; Ph.D. 2013; Professor of Aerospace Studies 2016.

Air Force Reserve Officers' Training Corps (AFROTC) provides University of Wyoming students a path toward earning a commission as an officer in the United States Air Force. The curriculum provides college students a solid understanding of the leadership and military fundamentals an Air Force officer requires. AFROTC cadets supplement their normal university coursework with studies in Air Force fundamentals, history, leadership, and national security affairs. In addition, cadets have the opportunity to learn about various careers in the Air Force through their studies, guest lectures, base visits, and other military training opportunities. While enrolled in AFROTC, the Air Force provides uniforms, AFROTC textbooks, and the necessary Air Force equipment. Upon successful completion of the program and earning their bachelor's degree, cadets are commissioned as 2nd lieutenants in the U.S. Air Force.

Application and enrollment in the program is voluntary. Students should simply register for the appropriate Air Force (AIR) courses. In addition, prospective cadets will need to complete an application package upon arrival at the detachment in order to ensure minimum qualifications for military service. Contact the AFROTC Department for additional details or with any questions regarding registration. All university students, both male and female, are eligible to apply for admission in the program.

Four-Year Program

The four-year program is divided into two phases. The first two years comprise the General Military Course (GMC) consisting of one class period (1 hour) per week in the classroom

and one class period (2 hours) per week in leadership laboratory. The GMC is a prerequisite for continuation in the Professional Officer Course (POC), the last two years in the program. Other prerequisites include passing the Air Force Officer Qualifying Test (AFOQT), maintaining at least a minimum grade point average of 2.0 (GMC) and 2.5 (POC), having the physical qualifications for an Air Force commission, and participating in a four-week field training session. The advanced course consists of one class period (3 hours) per week in the classroom and one class period (2 hours) per week in leadership laboratory.

Three-Year Program

Students may enroll in ROTC on a three or three and one-half year program where the GMC component is shorter. To complete the GMC requirements, the student must simultaneously enroll in AIR 1000 and AIR 2000 courses to complete all four academic terms of the GMC program. After successfully completing the GMC program and Field Training, students may enter the two-year POC program. This program is especially suitable for sophomores and junior college transfers. Students that participated in high school Junior ROTC, or have prior-enlisted service, can apply documented participation toward a portion of the GMC requirement.

Leadership Laboratory

The concept of leadership laboratory is to provide leadership training experiences which will improve a cadet's ability to perform as a USAF officer. Leadership laboratory is largely cadet planned and directed.

Field Training

Field training is a four-week program conducted in residence at an Air Force base during the summer.

While at field training, each cadet is provided subsistence, uniforms/equipment, and receives approximately \$28.00/day plus reimbursement for travel to and from the field training base.

Financial Benefits

Freshmen and Sophomores on AFROTC scholarships receive \$300 and \$350, per month, respectively. Juniors enrolled in the Professional Officers Course receive \$450 per month and seniors \$500 per month tax-free during the school year for subsistence. Uniforms, required texts and all necessary Air Force equipment are furnished by the government. In addition, all POC and scholarship cadets are

allowed to travel anywhere in the continental United States on military aircraft (on a space available basis).

Special Scholarship Program

Two-, three- and four-year scholarships are offered by AFROTC on a competitive basis. These scholarships pay for a \$900 book allowance per year, tuition (amount dependent on type of scholarship awarded), fees and other required expenses except room and board. The university and the State of Wyoming offer additional room and board funding to Air Force ROTC cadets (who have or have not been awarded an Air Force ROTC scholarship) and reside in university housing. High School seniors seeking a four-year scholarship should contact their high school counselors or the Recruiting Flight Commander, AFROTC Detachment 940, Dept. 3005, 1000 E. University Avenue, Laramie, WY 82071; telephone (307)766-3710; email at airforce.rotc@uwo.edu, early in the fall of their senior year. Sophomore or transfer students interested in competing for a scholarship should contact the Recruiting Flight Commander before the fall semester prior to junior standing.

Military Obligation

Students enrolling in the first two years of the AFROTC Program (the General Military Course) are not obligated to military service of any kind, unless on an Air Force scholarship their sophomore year. Cadets accepting an AFROTC scholarship and those entering the Professional Officer Course become members of the inactive reserve of the United States Air Force. Upon being commissioned a Second Lieutenant in the Air Force, graduates in non-flying career fields agree to serve four years on active duty; pilot candidates agree to serve on active duty for 10 years after completion of flight training; RPA, navigator, and air battle manager candidates agree to serve on active duty for six years after completion of their respective training.

Extracurricular Activities

To familiarize students with Air Force life and social customs, the AFROTC Program offers on a voluntary basis a wide range of extracurricular activities. Civil Air Patrol gives cadets an opportunity to experience flying first hand with a trained instructor pilot. The Arnold Air Society, a national professional honorary society, is a service organization active on campus. The color guard supports various university and local activities. Visits to Air Force bases across the nation provide insight into the function of Air Force opera-

tional units. Throughout the year, AFROTC teams participate in the university intramural sports program, while cadet-sponsored social events build the spirit of comradeship inherent in military life.

Aerospace Studies Minor

Air Force ROTC offers an Aerospace Studies minor. For the Aerospace Studies minor, the student must complete the core AFROTC program plus: 1) 3 credit hours in any Management (MGT) course in the current UW catalog and 3 credit hours in one Political Science (POLS) course listed below, or 2) 6 credit hours of Political Science courses listed below.

POLS 1200, 2200, 2290, 2300, 2310, 3220, 3270, 3300, 4220, 4230, 4255, 4300, 4340, 4360, 4870

The 24 credit hours required to accomplish the Aerospace Studies minor will effectively compliment many majors, provide a sound basis for future professional development, and increase the career opportunities of a UW graduate.

Air Force (AIR)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦Q]).

1000. Leadership Laboratory. 0. The concept of leadership laboratory is to provide leadership training experiences which will improve a cadet's ability to perform as a USAF officer. Leadership laboratory is largely cadet planned and directed. All cadets must enroll in leadership laboratory. *Prerequisites:* none.

1010. Heritage and Values of the Air Force I. 1-1/2. A survey course designed to introduce students to the United States Air Force and provides an overview of the basic characteristics, missions, and organization of the Air Force.

1020. Heritage and Values of the Air Force II. 1-1/2. Continues AIR 1010. *Prerequisite:* AIR 1010 or consent of instructor.

2010. Team and Leadership Fundamentals I. 1-1/2. Focuses on laying the foundation for teams and leadership. The topics include skills that will allow cadets to improve their leadership on a personal level and within a team. The courses will prepare cadets for their field training experience where they will be able to put the concepts learned into practice. The purpose is to instill a leadership mindset and to motivate sophomore students to transition from AFROTC cadet to AFROTC officer candidate. *Prerequisites:* AIR 1010 and AIR 1020 or consent of instructor.

2020. Team and Leadership Fundamentals II. 1-1/2. Continues AIR 2010. *Prerequisites:* AIR 1010, AIR 1020, and AIR 2010 or consent of instructor.

3010 [4010]. Leading People/Effective Communication I. 3. Teaches cadets advanced skills and knowledge in management and leadership. Special emphasis is placed on enhancing leadership skills and communication. Cadets have an opportunity to try out these leadership and management techniques in a supervised environment as juniors and seniors. *Prerequisite:* AIR 1010, 1020, 2010, and 2020 or consent of instructor.

3020 [4020]. Leading People/Effective Communication II. 3. [CS♦(none)] Continues AIR 3010. *Prerequisite:* AIR 1010, 1020, 2010, 2020, 3010 or consent of instructor.

4010 [4050]. National Security Affairs/Preparation for Active Duty I. 3. [G♦(none)] Designed for college seniors and gives them the foundation to understand their role as military officers in American society. It is an overview of the complex social and political issues facing the military profession and requires a measure of sophistication commensurate with the senior college level. The final semester provides information that will prepare the cadets for Active Duty. *Prerequisite:* AIR 1010, 1020, 2010, 2020, 3010, 3020, or consent of instructor.

4020 [4060]. National Security Affairs/Preparation for Active Duty II. 3. Continues AIR 4010. *Prerequisite:* AIR 1010, 1020, 2010, 2020, 3010, 3020, 4010 or consent of instructor.

Bachelor of Applied Science

160 Agriculture Building

Awarded by the College of Agriculture and Natural Resources

Phone: (307)766-4034 Fax: (307)766-4030; Web site: www.uwyo.edu/basa/

Organizations need leaders at all levels who can effectively understand the environment and society in which they operate; analyze situations and solve problems; supervise and manage, interact and communicate appropriately within and outside the organization; anticipate changes; and plan for the future. The Bachelor of Applied Science degree (B.A.S.) is designed for individuals with a completed Associate of Applied Science, Associate of Science, Associate of Business or an Associate of Arts degree at a Wyoming Community College (or an equivalent degree at another accredited institution) and who need or desire the additional breadth in skills, knowledge and professional expertise to enhance their capabilities in their own careers and in the organizations in which they work.

The fundamental philosophy of the B.A.S. degree is that the student must complete the general education (University Studies Program - USP) requirements expected of all UW bachelor's degrees and must engage in upper-division coursework sufficient to provide focus and depth of learning. Following this philosophy, the B.A.S. has four basic components. These components are university studies, career specialty, professional concentration, and electives. The fundamental elements of the baccalaureate degree are provided by the general education core (USP) and the upper division professional concentration. At the end of the program, students are expected to meet the following Student Learning Outcomes:

- 1) to develop proficiency in accessing, evaluating and utilizing information, ideas, and data;
- 2) to develop proficiency in communicating information and ideas effectively and responsibly;
- 3) to gain an appreciation for leadership development as a tool for individual, organization and community problem solving;
- 4) to demonstrate an understanding of organizational design, behavior, ethical practices, and effective managerial and supervisory practices;
- 5) to gain an understanding of social, cultural, economic and environmental contexts essential for effective leadership and the management of change.

The University Studies Program (USP 2015) consists of a minimum of 27 credit hours as adopted by the UW faculty, and the Articulation Agreement between UW and the Wyoming Community Colleges. Students with an Associate of Applied Science degree from a Wyoming community college will normally matriculate with 15-20 hours of credit that count toward this component. The remainder may be required as part of a UW student's coursework, including the Professional Concentration or Electives coursework.

The Career Specialty Component is fulfilled with the Associate of Applied Science, the Associate of Science, or Associate of Arts degrees. This component will consist of a minimum of 40 credit hours in the major.

The Professional Concentration Component is the advanced component of the program and the courses are selected by the student and the advisor. All students are required to take a range of courses from the prescribed set of areas of concentration within this component in order to provide them with the breadth and depth of learning necessary for a baccalaureate degree. This component will consist of 36-40 upper division or articulated equivalent credit hours. Note: Within the Professional Concentration, students have a choice between two Organizational Leadership areas. Option A focuses on Community Leadership; Option B focuses on Business Leadership.

The Elective Component will consist of the number of credit hours needed (after completing the other three components) to complete the degree components. A minimum of 120 hours is required for the B.A.S.

All University of Wyoming Students must earn a total of 42 upper division hours (at least 30 hours taken from UW), to earn their degree. Students in the B.A.S. program must earn a "C" in all courses on the B.A.S. checklist. Failure to do so will require repeating the course. Per university regulations, students may only attempt a course three times; an "F" or "W" count as attempts.

Application Process

All students must apply to the Bachelor of Applied Science program, including those who would like to change their major to the B.A.S. in Organizational Leadership. Students cannot just fill out a change of major form and have Admissions change their status.

These are the steps for application:

1. Apply to the University of Wyoming through Admissions, declaring the Bachelor of Applied Science in Organizational Leadership.
2. Have official transcripts from all institutions attended sent to Admissions.
3. Email BAS@uwyo.edu when you have received your acceptance to UW. Include your W# in the message. We can then track your files to evaluate them for the BAS program.
4. Students will receive a letter telling the application decision. If a student is denied admission to the BAS, an explanation for the denial will be provided. If accepted, the student will be given information for how to work with the program advisor, Rosalind Grenfell (rgrenfel@uwyo.edu), to enroll in classes.

Organizational Leadership Major

This program is available by distance delivery only. Entry into the program requires an application process. Students must apply for admission to UW first. Official transcripts from all institutions attended must be submitted to UW Admissions. Entry into this program requires an existing associate's degree. Transcripts will not be analyzed prior to application.

All students pursuing a bachelor's of applied science degree in Organizational Leadership are required to complete: a) University Studies Program (USP) requirements and b) courses within the program checklist. While students may move through the program at a pace that works for them, the checklist will illustrate a path for those who wish to complete the degree in two years. Students must complete coursework from Option A or Option B as part of their degree requirements.

The University Studies Program (USP) ensures that each student's program includes the elements essential to a lifetime of personal and professional growth: habits of mind, practices of active citizenship, and development of intellectual skills. The USP program requires students to develop skills that include the ability to express oneself in speech and writing; to locate, evaluate and effectively use information; and to examine problems from quanti-

tative, qualitative, and scientific perspectives. The USP requirements will be approximately 30 credit hours of your overall degree program.

All courses within the Bachelor of Applied Science must be completed with a grade of C or better. If you do not pass the course with a grade of C or better after three attempts you will be dismissed from your organizational leadership major.

The requirements for your program are listed in this check sheet. It is important to understand course sequencing (when courses are offered) and prerequisites (other courses that must be taken first). Each student has an assigned advisor, Rosalind Grenfell (rgrenfel@uwo.edu). You will be advised each semester. It is important that you work closely with your advisor to plan your course schedule.

University Requirement – All degrees at the University of Wyoming require 42 upper-division credit hours (3000+).

Residency Requirement – All degrees must include a minimum of 30 credit hours from UW.

I. Major Requirements

JUNIOR YEAR: Fall	Hrs.
AGRI 3000	3
FCSC 3110 or AGRI 4350.....	3
Upper division elective	3
*one course from Option A or Option B	3
Elective or remaining USP course	3
Total	15
JUNIOR YEAR: Spring	Hrs.
*one course from Option A or Option B	3
Contemporary Society course	3
Approved Career Elective.....	3
COJO 3010 or COJO 3190	3
Elective or remaining USP course	3
Total	15
SENIOR YEAR: Fall	Hrs.
AGRI 4600.....	3
*one course from Option A or Option B	3
Elective or remaining USP course	3
Approved Career Elective.....	3
Upper division elective	3
Total	15
SENIOR YEAR: Spring	Hrs.
*one course from Option A or Option B	3
Elective	3
AGRI 4960 or 3 credits of approved career electives	6
Contemporary Society course	3
Total Hrs.	15
Total Credit Hours	60

II. University Studies Program

Core Components	Hrs.
Critical and Creative Thinking (FYS)	3
Communication I (COM1).....	3
Quantitative Reasoning (Q)	3
Science (PN)	6
Human Culture (H)	6
U.S. and Wyoming Constitutions (V).....	3
Embeddable Components	Hrs.
Communication 2 and 3 (COM2 and COM3)	6
Total USP Hrs.	30
Total hours for degree:	120

Degrees Offered

The Haub School offers undergraduate degrees, several campus-wide concurrent academic programs, and a graduate degree in partnership with the College of Law:

Bachelor of Science in Environmental Systems Science (for baccalaureate students)

Bachelor of Science in Environment & Natural Resources (for baccalaureate students, required second major)

Environment & Natural Resources concurrent major (for baccalaureate or master's students earning a degree from UW)

Bachelor of Science in Outdoor Recreation and Tourism Management (for baccalaureate students)

Environment & Natural Resources minor (for baccalaureate, master's, and doctoral students)

Sustainability minor (for baccalaureate students)

Outdoor Leadership minor (for baccalaureate students)

Master of Arts in Environment & Natural Resources (J.D./M.A. for law students only)

Collaborative Practice minor (for master's and doctoral students)

Program Admission

Undergraduate students will apply for admission to the University of Wyoming, and then declare a major or minor within the Haub School at any point during their course of study. To declare a major or minor, students must meet with a Haub School academic advisor.

Graduate students interested in the concurrent major or minor in Environment & Natural Resources (ENR) will apply for admission to a primary degree program at the University of Wyoming. Once accepted to their primary graduate program, students must complete an additional online process to confirm their enrollment in the ENR major or minor. During the Haub School admission process, students will select a Haub School faculty mentor and submit a one-page Statement of Purpose. Current application requirements available online.

Applicants to the J.D./M.A. in ENR must apply to both the College of Law and the Haub School. Admission to the joint degree program

is contingent on acceptance to the College of Law. Current application requirements are available online.

More information, including complete curricula for each academic offering, is available from the Haub School. Students enrolled in multiple Haub School programs must earn 12 credits unique to each program.

Students must earn a C or better in all courses fulfilling program requirements - including Haub School U.S. Diversity and Global Awareness courses, and degree, major, and/or minor courses.

Haub School Requirements (for undergraduate students earning their primary degree from the Haub School)

Undergraduate students earning a B.S. in Environmental Systems Science, a B.S. in Outdoor Recreation and Tourism Management, and/or a B.S. in Environment and Natural Resources (plus a concurrent major in another field) must fulfill two courses (totaling 6 credit hours) of Haub School Requirements. An undergraduate degree from the Haub School of Environment and Natural Resources indicates that students are liberally educated, with the foundational skills and knowledge to approach local and global contexts from multiple perspectives. The approved courses for the following requirements are searchable within WyoRecords under the Browse Classes feature. Students must earn a C or better in all core curricula courses.

1. U.S. Diversity (ASD). This requirement allows students to explore the complexity of cultural identities in the U.S. and interdependence of the cultures. Students will gain an understanding of the influences of categories such as race, class, ethnicity, gender, disability, sexual orientation, religion, and age on American behaviors, institutions, values, and beliefs.
2. Global Awareness (ASG). Because citizens ever more frequently encounter behaviors and practices based on beliefs, conditions, and assumptions different from their own, they need to understand the nature and function of culture. Our students should have an awareness of the multiple links that affect the living conditions and range of action of peoples of the world, including international systems of

commerce, art, science, sustainability, technology, politics, communication, belief, and justice, among others.

Bachelor of Science in Environmental Systems Science

Environmental Systems Science (ESS) is an interdisciplinary undergraduate degree in environmental science, focusing on the interactions between the various components of Earth and environmental systems, including the biosphere, lithosphere, atmosphere, and anthroposphere.

Students earning a B.S. in Environmental Systems Science will

1. demonstrate a knowledge of interdisciplinary perspective and integrative thinking,
 - a. understand physical and biological components of environmental systems, including the human component;
2. design, conduct, and interpret scientific investigations,
 - a. understand the ethics of scientific investigation,
 - b. demonstrate proficiency in data collection, statistical analysis, and use of information technology tools and modeling;
3. apply systems concepts to problems concerning environmental systems and their components, and construct conceptual and quantitative systems models;
4. examine spatial, temporal, and spatial-temporal patterns in environmental systems, and use information technology tools to depict, project, and communicate such patterns.

ESS Program Requirements

Students earning a B.S. degree in ESS complete coursework including:

23+ credit hours of Foundations courses:

1. Intro to Systems Science: ESS 1000
2. Foundation of Biological Sciences (choose one course): AECL 1000, ENR 1200, or LIFE 1010
3. Foundation of Earth Sciences (choose one course): ENR/GEOL 1500, GEOG 1010, or GEOL 1100
4. Foundation of Physical Sciences (complete all courses): CHEM 1020, PHYS 1110, and ESS/GEOL 2000

18+ credit hours of Spheres courses:

1. Anthrosphere (choose one course): ENR/AMST 4030, ENR/ANTH 4310, ENR/GEOG 4040, ENR/HIST 4412, ENR/SOC 3950, GEOG/NAIS 3400, GEOG 3550, or GEOL 3650
2. Atmosphere (choose one course): ATSC 2100, ATSC 2200, ERS 3010, ENR/GEOG/GEOL 3450, or GEOG/GEOL 4442
3. Biosphere (choose one course): ENR 4010, 4011, and 4012 (must complete all three courses), ENR/ZOO 2450, GEOG 4460, LIFE 2022, LIFE 2023, LIFE 3400, REWM 2000, REWM 4200, or REWM 4400
4. Lithosphere – Environmental Change (choose one course): ENR/SOIL 3130, ENR/CE 4430, ESS/GEOG/GEOL 3480, or GEOL 3500
5. Lithosphere – Hydrology & Surface Processes (choose one course): ENR/REWM 4285, GEOG 3010, GEOL 3400, REWM 4700, or REWM 4710

15+ credit hours of Skills & Tools courses:

1. Statistics (choose one course): STAT 2050 or STAT 2070
2. Data Analysis (choose one course): ENR/GEOL 4525, GEOL 3250, STAT 3050, or ZOO 4400
3. GIS/Remote Sensing (choose one course): GIST 1100, GIST 2100, GIST 2150, GIST 2160, GIST 3111, or GIST/RNEW 4130
4. Applied Experience (1 credit): ESS 4970
5. Capstone: ESS 4950

18+ credit hours in an approved minor* or concurrent major as an area of specialization: Agroecology, Anthropology, Astronomy, Biology, Botany, Chemistry, Environment & Natural Resources, Geography, Geology, Insect Biology, Land Surveying, Paleoenvironmental Studies, Physics, Rangeland Ecology & Watershed Management, Reclamation & Restoration Ecology, Soil Science, Statistics, Sustainability, Wildlife & Fisheries Biology & Management, or Zoology

6+ credit hours of Haub School Requirements courses: U.S. Diversity (choose one) and Global Awareness (choose one)

**other options available; subject to advisor approval*

Bachelor of Science in Environment & Natural Resources or Undergraduate Major in ENR

The primary goal of ENR studies is to gain depth and breadth of understanding in interdisciplinary studies that address complex ENR issues and to integrate that understanding with the student’s other fields of study.

Students can choose to pursue:

- a concurrent major in ENR, earned alongside an approved baccalaureate degree in any other discipline, or
- B.S. in ENR, earned alongside an additional major in any other discipline.

The ENR curriculum is designed to prepare students to demonstrate learning in six key areas:

1. Specialization & Integration – Students will complement their disciplinary depth with broad exposure to ENR-related disciplines and approaches.
2. Spatial & Temporal Perspectives – Students will understand the temporal and spatial characteristics of ENR challenges.
3. Policy – Students will recognize the content and implications of past and current ENR policies.
4. Cultures & Values – Students will appreciate the diversity of ENR perspectives and experiences, including the role of personal and collective value systems and structural inequalities in shaping those systems.
5. Complexity, Risk, & Uncertainty – Students will understand that ENR problems inherently involve complexity, risk, and uncertainty.
6. Professional & Academic Skills – Students will acquire specific skills necessary to succeed in a range of ENR professions and/or graduate and professional school, especially proficiency in written and oral communication, applied problem solving, and collaboration.

All undergraduate students in ENR complete their coursework in conjunction with another major in any discipline. Students must complete 35+ hours of coursework in ENR, including:

15+ credit hours of ENR Core courses:

1. Foundations of Environmental Science (choose one course): ENR 1200, ENR/GEOL 1500

2. Environment & Society: ENR 2000
3. Approaches to Problem Solving: ENR 3000
4. Environmental Assessment: ENR 4900
5. Applied Experience (2 credits): ENR 4970

21+ credit hours of ENR Disciplines courses:

1. Cultures & Values (choose one course): ENR/AMST 3050, ENR/AMST 4030, ENR/ANTH 4310, ENR/HIST 4412, ENR/HIST 4475, ENR/PHIL 2330, ENR/POLS 3620, ENR/SOC 3950, GEOG/NAIS 3400, GEOG 4570, HLED 4020, ORTM 4901, or WMST 4450
2. Economics (choose one course): AGECE 4720, ECON 2400, ENR/AGECE 3750, ERS 3400, or GEOG 3050
3. Environmental Management (choose one course): ENR/AMST 4800, ENR/CE 4430, ENR/ZOO 2450, ERS 3010, ENR/GEOG 4040, GEOG 4080, GEOL 3400, GEOL 3650, REWM 2000, or REWM 4700
4. Data Analysis (choose one course): ENR/AGECE 4550, ENR/GEOL 4525, GIST 2100, GIST 2150, GIST 2160, GIST 3111, GIST/RNEW 4130 or STAT 3050
5. Physical & Natural Science (choose one course): ATSC 2100, ATSC 2200, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/REWM 3100, ENR/REWM 4285, ENR/SOIL 3130, GEOG 4460, ENR/GEOG/GEOL 3450, ESS/GEOG/GEOL 3480, GEOG/GEOL 4442, LIFE 3400, or REWM 4440
6. Policy (choose one course): ENR 3300, ENR 4750, ENR/GEOG/POLS 4051, ENR/GEOG/POLS 4052, INST/POLS 4455, or POLS 4475/INST 4990
7. ENR Electives (choose one course; three credits required): ENR 1300, ENR 2800, ENR 3900, ENR 4450, ENR 4600, ENR 4890, or ENR 4960

An approved major in any discipline

Note: students earning a B.S. in ENR with their degree awarded from the Haub School must additionally complete 6 credit hours of Haub School Requirements (U.S. Diversity and Global Awareness).

Bachelor of Science in Outdoor Recreation and Tourism Management

A B.S. in Outdoor Recreation and Tourism Management (ORTM) emphasizes stewardship and conservation of natural resources, tourism and outdoor recreation theories and best practices, entrepreneurial and business management strategies, creating outstanding visitor experiences, and broad understanding of cultural and natural resources. Students choose one of five different concentrations.

Students earning a degree in ORTM will be expected to demonstrate learning in six key areas:

1. Leadership
 - a. competency in leading and building diverse, collaborative teams;
 - b. application and evaluation of ethical, resourceful leadership principles to challenges and solutions within the ORTM industry.
2. Professional Practice
 - a. ability to apply and critically evaluate practical, creative, ethical, and theoretical frameworks in diverse and complex professional circumstances.
3. Communication
 - a. ability to manage dynamic relationships and demonstrate best practices in communication.
4. Nimble and Creative Thinking
 - a. ability to strategically design, implement, and evaluate sustainable and emergent services, experiences, and opportunities.
5. Trans-disciplinarity
 - a. synthesis and application of ecological and human communities, with the capacity to provide wise stewardship and conservation of natural resources;
 - b. tourism and outdoor recreation theories and best practices;
 - c. entrepreneurial and business management strategies.
6. Place-based and Global Understanding
 - a. skills to implement solutions appropriate for local environments that demonstrate fluency in global contexts and diverse cultures.

To fulfill the requirements, students must complete the following, earning 75+ credit hours in specified categories:

18 credit hours of ORTM Core courses:

1. Recreation & Tourism: ORTM 1000
2. Natural & Cultural Resources: ORTM 1050

3. Customer Service & Hospitality: ORTM 2000
4. Program Planning, Design, & Delivery: ORTM 2050
5. Tourism Theory & Practice: ORTM 3000
6. Operations, Management & Env. Stewardship: ORTM 3050

20+ credit hours in ORTM Foundations courses:

1. Statistics: STAT 2050 or STAT 2070
2. Business Fundamentals (complete one course from each area):
 - Economics (choose one course): ECON 1010, ECON 1020, or ECON 1200
 - Accounting: ACCT 2010
 - Marketing: MKT 3210
3. Environment & Natural Resources
 - Environmental Science (choose one course): ENR 1200, ENR/GEOL 1500, GEOG 1010, or GEOL 1100
 - Conservation & Sustainability (choose one course): ENR 1300, GEOL 1600, GEOG 4040, or RNEW 1000
4. People & Culture
 - Social Science (choose one course): GEOG 1000, GEOG 1020, PSYC 1000, or SOC 1000
 - Culture/Diversity (choose one course): AMST 2110, ENR/POLS 3620, ENR 2000, GEOG/NAIS 3400, NAIS 1001, NAIS 1030, NAIS 1350, or NAIS 2290

13+ credit hours in Synthesis & Applied Experience:

1. Professional Semester (complete all courses in the same semester): ORTM 4900, ORTM 4901, ORTM 4902, and ORTM 4903
2. Applied Experience (one credit minimum): ORTM 4970*

**students must complete a 400-hour internship experience prior to enrolling in ORTM 4970*

19+ credit-hour Concentration (choose one):

- **Business & Hospitality Management**
 1. Legal Environment of Business: MGT 1040
 2. Management & Organization: MGT 3210
 3. Corporate Finance: FIN 3210
 4. Management (choose one course): MGT 3410, MGT 3420, or MKT 4590
 5. Sales & Marketing (choose one course): MKT 4230, MKT 4240, or MKT 4520

6. Business Analytics or Entrepreneurship (choose one course): ENTR 2700, ENTR 3700, FIN 4560, MGT 4500, MGT 4510, or MGT 4560
- **Management of Recreation Resources**
 1. Environmental or Biological Science (choose one course): ENR 1200 or LIFE 1010
 2. Resource Management (choose one course): ENR/ZOO 2450, ENR/GEOG 4040, GEOG 4080, GEOL 3650, REWM 2000, or REWM 4700
 3. Human Dimensions (choose one course): ENR 4960, ENR/AGEC 4450, ENR/AMST 3050, ENR/ANTH 4310, ENR/HIST 4412, ENR/HIST 4475, ENR/POLS 3620, ENR/SOC 3950, or MKT 4240
 4. Law & Policy: ENR/GEOG/POLS 4051, ENR/GEOG/POLS 4052, or ENR 4750
 5. Planning (choose one course): ERS 3400, ECON 2400, AGECE 4660, AGECE 4720, or ENR/AGECE 3750
 6. Geographic Information Systems or Analytics (choose one course): ENR/AGECE 4550, ENR/GEOL 4525, GIST 2100, GIST 2150, GIST 2160, GIST 3111, GIST/RNEW 4130, or STAT 3050
- **Cultural & International Tourism**
 1. Global Tourism: ORTM 4050
 2. International Experience: students must complete a faculty-led, semester-, or year-long study abroad course
 3. Cultural Resources (choose one course): ENR/SOC 3950, GEOG/NAIS 3400, GEOG 4570, INST 3000, INST 3200, INST 4060, INST 3450, or POLS 4475
 4. The American West (choose one course): GEOG 4500, GEOG 4502, HIST 2389, HIST 4020, HIST/NAIS 2290, HIST/NAIS 3000, HIST/NAIS 4000, or NAIS 3200
 5. Language (complete two consecutive language or ASL courses): LANG 1010 and LANG 1020
 6. Cultural/International Museum Studies: ANTH 2200, ANTH 2600, ANTH 3210, ANTH/AMST 2700, INST 2230, INST 2240, INST 2250, INST 2280, INST 2350, or POLS 2200

• Outdoor Recreation Leadership

1. Outdoor Leadership: ENR 2800
2. Management & Organization: MGT 3210
3. Wilderness First Responder and CPR certifications*: ENR 3900 or provide proof of certification to advisor
4. Leadership (choose one course): AGRI 3000, AGRI 4700, ENR 4950, CNSL 2200, CNSL 3010, FCSC 4117, or WMST 1900
5. Business (choose one course): ENTR 2700, ENTR 3700, FIN 3250, MGT 1040, MGT 3110, MKT 4590, or MGT 4500
6. Law & Policy: ENR/GEOG/POLS 4051, ENR/GEOG/POLS 4052, or ENR 4750
7. Human Dimensions (choose one course): ENR 4960, ENR/AGEC 4450, ENR/AMST 3050, ENR/ANTH 4310, ENR/HIST 4412, ENR/HIST 4475, ENR/POLS 3620, ENR/SOC 3950, or MKT 4240
8. Natural History: BOT 3100, BOT 4280, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/AMST 3050, ENR/GEOG/GEOL 3450, GEOG 4460, GEOG/NAIS 3400, or GEOG 4000

• Creative Studies in Recreation & Tourism: self-designed program of study approved; requires approval from advisor

6+ credit hours of Haub School Requirements courses:

- U.S. Diversity (choose one) and Global Awareness (choose one)

**certifications must be current at time of graduation.*

Undergraduate Minor in ENR

An ENR minor may accompany any primary field of study. The ENR core, plus one elective course, fulfills the 18 credit hour requirement for the minor:

15+ credit hours of ENR Core courses:

1. Foundations of Environmental Science (choose one course): ENR 1200, ENR/GEOL 1500
2. Environment & Society: ENR 2000
3. Approaches to Problem Solving: ENR 3000
4. Environmental Assessment: ENR 4900
5. Applied Experience (2 credits): ENR 4970

3+ credit hours of ENR Electives

(choose one; three credits required): ENR 1300, ENR 2800, ENR 3900, ENR 4450, ENR 4600, ENR 4890, or ENR 4960

Undergraduate Minor in Sustainability

The sustainability minor is available to any undergraduate student at the University of Wyoming. The minor prioritizes systems thinking, civic engagement, and personal development rooted in sustainability for everyday challenges.

Students completing the sustainability minor will be expected to:

1. demonstrate a theoretical and historical understanding of sustainability;
2. develop a model of sustainability informed by personal values and integrated into student's worldview;
3. think holistically about consequences of actions and intellectually respond to perspectives of sustainability outside their own, as well as explore and evaluate the implications of sustainability values;
4. develop and implement sustainability solutions in their community and have the ability to apply sustainability principles to a range of disciplines and professional settings.

To fulfill the requirements for the minor, students must earn 18 credits hours:

9 credit hours of Sustainability Core courses:

1. Foundations of Sustainability: ENR 1300
2. Ethics & Justice (choose one): ENR/PHIL 2330, ENR/POLS 3650, HLED 4020, NAIS 1030, PHIL 3250, or WMST 4450
3. Campus Sustainability: ENR 4600

9+ credit hours of Sustainability

Electives courses (choose three courses from any of the following categories):

1. Culture & Society: AMST 4800, GEOG 4310, AMST 4030, ENR/ANTH 4310, ENR/SOC 3950, GEOG/NAIS 3400, GEOG 4310, GEOG 3550, or GEOL 3650
2. Economics & Policy: AGECE/ENR 3750, AGECE 4720, ENR 4750, ENR/GEOG/POLS 4051, ERS 3400, or INST/POLS 4455
3. Energy & Environment: ATSC 2100, ARE 2410, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/CE 4430, ENR/

- GEOG/GEOL 3450, ENR/REWM 3100, ERS 3010, ERS 4050, ESS/GEOG/GEOL 3480, GEOG 4440, GEOL 1600, GEOL 3600, ME 4470, REWM 4200, or SOIL 3130
4. Food Systems: AECL 1000, AGECE 3860, ANTH 4260, BOT 3100, FCSC 3147, HLED 4020, PLNT 4020, or PLNT 4120

Undergraduate Minor in Outdoor Leadership

The outdoor leadership minor is available to any undergraduate student at the University of Wyoming. Students earning the minor will study leadership, ethics, field ecology, outdoor recreation, and wilderness medicine.

Students earning a minor in outdoor leadership will:

1. develop an understanding of leadership theories, including leadership movements, qualities, styles, and models;
2. identify and evaluate the cultural and environmental dimensions of outdoor leadership, including moral and ethical responsibilities, the fundamentals of ecological systems, and the human impact on the natural world;
3. demonstrate and apply outdoor leadership competency in a practical leadership role;
4. plan, implement, supervise, and analyze a high-quality, safe outdoor adventure and/or educational program;
5. earn and maintain a professional certification of Wilderness First Responder.

To fulfill the requirements, students must complete the following, earning 17+ credits in specified categories:

6+ credit hours of Outdoor Leadership Foundations courses:

1. Intro to Outdoor Leadership: ENR 2800
2. Environmental Science (choose one): ENR 1200, ENR/GEOL 1500, ENR/GEOG 4040, AECL 1000, GEOG 1010, GEOL 1100, or LIFE 3400

9+ credit hours of Concepts courses:

1. Field Ecology (choose one): ENR 1200, ENR 4010, 4011, and 4012 (must complete all three courses), or ENR 4960
2. Leadership (choose one): AGRI 3000, AGRI 4700, ENR 4950, CNSL 2200, CNSL 3010, FCSC 4117, or WMST 1900

3. Ethics & Culture (choose one): ENR/AMST 3050, ENR/ANTH 4310, ENR/PHIL 2330, ENR/POLS 3620, ENR/SOC 3950, GEOG/NAIS 3400, ORTM 1050, or ORTM 4901

3+ credit hours of Applied Experience

(choose one; three credits required): ENR 3700, ENR 4960, or ENR 4970

- Wilderness First Responder and CPR certifications*: ENR 3900 or provide proof of certification to advisor

**certification must be current at time of graduation*

Graduate Major in ENR

The ENR major is completed in tandem with any UW graduate degree. Students earning the ENR graduate major will take classes and conduct research in such fields as cultural studies, ecology, economics, law and politics, and management to:

- be conversant across a range of field of environmental significance, spanning science and technology to human dimensions of natural resources;
- understand and evaluate the relationship of your primary discipline to other relevant ENR fields; and
- produce discourse, scholarship, and practical solutions that address the complexity of ENR challenges.

In addition to degree requirements of the student's home department, students must complete 15 credit hours:

6 credit hours in ENR Core courses:

1. Approaches to Problem Solving: ENR 5000
2. Environmental Assessment: ENR 5900

9+ credit hours in ENR Electives courses (choose three+ courses from any of the following categories):

1. Human Dimensions: AGEC 4720, AGEC 5660, AMST 5030, ANTH 5260, ECON 5410, ENGL 4075, ENR 5450, ENR 5600, ENR/ANTH 4310, ENR/GEOG 4040, GEOG 4340, GEOG 5310, GEOG 5570, GEOG 5590, NASC 5650, REWM 5103, or WMST 5450
2. Law & Policy: ENR 5750, ENR/GEOG/POLS 5051, ENR/GEOG/POLS 4052, INST/POLS 5455, LAW 6660, LAW 6700, LAW 6800, LAW 6860, LAW 6865, or POLS 5475
3. Natural & Physical Sciences: BOT 5280, BOT 5700, BOT 5775, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/REWM

- 5285, ENR/PATB 5240, GEOG 5450, GEOG/GEOL 5440, PLNT 5120, REWM 5000, REWM 5580, REWM 5710, REWM 5750, REWM 5400, RNEW 5500, or SOIL 5150
4. Quantitative & Qualitative Methods: BOT 5550, ENR/AGEC 5550, ENR/GEOL 5525, GIST 5050, GIST 5100, GIST 5150, GIST/RNEW 5130, or STAT 5050

Additional Program Requirements:

1. Statement of Purpose: Prior to or concurrent with declaring an Environment and Natural Resources (ENR) graduate major or minor, students must submit a 1-page Statement of Purpose describing how the Haub School's program aligns with their academic and professional goals.
2. Cumulative Learning Analysis: Immediately prior to graduation, students must submit a 1-2 page Cumulative Learning Analysis, analyzing their learning as a whole throughout their graduate work, informed by their coursework, research and co-curricular activities.
3. Program Completion Letter: Upon completion of ENR coursework, students will arrange a meeting with their advisor to ensure all requirements have been met. Once this step is complete, their advisor will submit a signed Program Completion Letter to the registrar, indicating the student should receive the ENR concurrent degree.

Graduate Minor in ENR

The ENR graduate minor is designed for doctoral students in any discipline who want to broaden their perspectives, experiences, and critical thinking skills to complex environmental problems. The minor is also available to master's students.

In addition to degree requirements of the student's home department, students must complete 12 credit hours:

6 credit hours in ENR Core courses:

1. Approaches to Problem Solving: ENR 5000
2. Environmental Assessment: ENR 5900

6+ credit hours in ENR Electives

courses (choose three+ courses from any of the following categories):

1. Human Dimensions: AGEC 4720, AGEC 5660, AMST 5030, ANTH 5260, ECON 5410, ENGL 4075, ENR 5450, ENR 5600, ENR/ANTH 4310, ENR/GEOG 4040, GEOG 4340, GEOG 5310, GEOG 5570, GEOG 5590, NASC 5650, REWM 5103, or WMST 5450
2. Law & Policy: ENR 5750, ENR/GEOG/POLS 5051, ENR/GEOG/POLS 4052, INST/POLS 5455, LAW 6660, LAW 6700, LAW 6800, LAW 6860, LAW 6865, or POLS 5475
3. Natural & Physical Sciences: BOT 5280, BOT 5700, BOT 5775, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/REWM 5285, ENR/PATB 5240, GEOG 5450, GEOG/GEOL 5440, PLNT 5120, REWM 5000, REWM 5580, REWM 5710, REWM 5750, REWM 5400, RNEW 5500, or SOIL 5150
4. Quantitative & Qualitative Methods: BOT 5550, ENR/AGEC 5550, ENR/GEOL 5525, GIST 5050, GIST 5100, GIST 5150, GIST/RNEW 5130, or STAT 5050

Additional Program Requirements:

4. Statement of Purpose: Prior to or concurrent with declaring an Environment and Natural Resources (ENR) graduate major or minor, students must submit a 1-page Statement of Purpose describing how the Haub School's program aligns with their academic and professional goals.
5. Cumulative Learning Analysis: Immediately prior to graduation, students must submit a 1-2 page Cumulative Learning Analysis, analyzing their learning as a whole throughout their graduate work, informed by their coursework, research and co-curricular activities.
6. Program Completion Letter: Upon completion of ENR coursework, students will arrange a meeting with their advisor to ensure all requirements have been met. Once this step is complete, their advisor will submit a signed Program Completion Letter to the registrar, indicating the student should receive the ENR concurrent degree.

Juris Doctor/Master of Arts in ENR

Students working toward the J.D./M.A. in ENR consult a Haub School advisor to design a program of study tailored to meet their educational goals. Students must earn a minimum of 30 credits for the master's degree:

9 credit hours in ENR Core courses:

1. Approaches to Problem Solving: ENR 5000
2. Environmental Assessment: ENR 5900

Second- or third-year students take 6 credits of foundational coursework designed to introduce alternative approaches to problem solving and environmental assessment practices.

3. Plan B Writing Seminar (1 credit): ENR 5890

Typically completed in the first semester of the third year.

4. Plan B Thesis: JD/MA (2 credits): ENR 5961

9 credit hours in ENR Electives courses

(choose three+ courses in consultation with Haub School advisor):

1. Humanities: AMST 5030, ANTH 5620, ENGL 4075, ENR 5600, ENR 5960, ENR/GEOG 4040, GEOG 5310, NASC 5650, or WMST 5450
2. Environmental Science: BOT 5700, BOT 5280, BOT 5775, ENR 4010, 4011, and 4012 (must complete all three courses), ENR/ZOO 5240, ENR/REWM 5285, GEOG 5440, GEOG 5450, GEOG 5880, PLNT 5120, REWM 5580, REWM 5710, RNEW 5400, RNEW 5500, or SOIL 5150
3. Social Science: AGECE 4720, AGECE 5660, ECON 5410, ENR 5750, ENR/AGECE 5450, ENR/AGECE 5550, ENR/GEOG 5050, ENR/GEOL 5525, ENR/POLS 5051, GEOG 5325, GIST/RNEW 5130, GIST 5211, INST/POLS 5445, INST/POLS 5455, INST/POLS 5475, POLS 5710, REWM 5000, REWM 5103, or STAT 5050

Second-, third-, or fourth-year students must take a minimum of 9 credits outside the College of Law. Courses familiarize students with non-law ENR perspectives and approaches. Students work with a Haub School advisor to select courses from an approved list.

12 credit hours in Environmental and Natural Resources Law Specialization courses: LAW 6510, LAW 6660, LAW 6700, LAW 6790, LAW 6800, LAW 6860, LAW 6890, LAW 6910, LAW 6991, LAW 6992, LAW 6915, LAW 6915, or LAW 6500

Students will take 12 credits to gain depth in ENR law. Special approval may be granted for special topics courses.

Plan B Project research:

1. Students must complete a cumulative work of scholarship known as the Plan B project. The Plan B offers more flexibility than a traditional thesis in content and format. Students will be required to choose a UW faculty advisor and at least two additional committee members. Committee composition is subject to approval by the director of academics. A public oral defense of the project is required. All members of the student's committee must be present at the defense.

Graduate Minor in Collaborative Practice

The Collaborative Practice minor is designed to provide students with skills in designing, organizing, facilitating, and evaluating collaborative decision-making processes. Students pursuing the Collaborative Practice minor will:

- build process competencies in collaborative decision making and problem solving, and
- deepen their knowledge in the application of collaborative processes in specific contexts (natural resources, health, education, business, etc.).

Collaborative Practice minor students who are currently working towards an ENR graduate major may not count ENR 5290 or ENR 5291 towards their ENR major. ENR 5450 (Negotiation) and one elective (approved for both the Collaborative Practice minor and the ENR major) may count for both. In addition to degree requirements of the student's home department, students must complete 12 credit hours:

9 credit hours in Collaborative Practice Core courses:

1. Negotiation: ENR 5450
2. Principles & Methods in Collaborative Practice: ENR 5920
3. Collaborative Practicum: ENR 5921

3 credit hours in Collaborative Practice Electives (choose one course from any of the following categories):

1. Collaborative Process: COJO 5250, COJO 5230, COJO 5620, ENR 5550, POLS 5080, POLS 5540, or POLS 5685
2. Natural Resources: ENR 5000, LAW 6660, LAW 6800, or REWM 5250
3. Education: EDAD 5650, or EDAD 5720

Environment and Natural Resources (ENR)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB↔Q]).

1000. Energy and Society. 3. [O↔PN]

Introduces humans' past, present, and future sources of energy and their advantages and limitations. Discusses society's current, non-sustainable pattern of energy use from a supply and environmental perspective. Investigates the technical, environmental, political, and societal problems associated with the eventual conversion to renewable energy resources. Cross listed with ERS 1000.

1100. Environment and Natural Resource Problems and Policies. 2. [I,L↔(none)]

Survey of environmental and natural resources issues and policies at local/regional, national, and global scales. Students are challenged to think critically as they dissect the causes, complexities, and solutions of contemporary, interdisciplinary environmental and natural resource challenges.

1101. First-Year Seminar. 3. [(none)↔FYS]

1200. Environment. 4. [SB↔PN].

Introductory environmental science course appropriate for science and nonscience majors. Uses cases studies and applied laboratories to explore core biological principles such as nutrient flow and cycling, population and community ecology, and ecosystem structure and function, as well as the non-science dimensions of ENR issues. Early-semester, weekend field trips/labs required.

1300. Foundations of Sustainability. 3.

Examine the basic concepts, theories, and practice of sustainability as a foundation for future learning in the field. Explore principles of sustainability in our community and personal lives through various lenses and systems.

1400. Biodiversity: Science and Society. 3.

[I, L↔(none)] Biodiversity lays the foundation for nature's ability to properly function. In turn humans depend on a healthy-functioning

natural system. Adequate biodiversity provides us with many things including new genetic material for agriculture, medical discoveries, recreational opportunities and good mental health. This course will examine key themes in our understanding of biodiversity. Students enrolled in this course will have a better understanding of issues, challenges and potential solutions to our current biodiversity crisis. Course meetings will largely consist of group discussions of assigned readings. Discussions will focus on critically evaluating and analyzing information, hypotheses and knowledge that arise from the readings. Writing assignments will emphasize succinct but thorough interpretation of information, policy, conservation and societal impacts of biodiversity.

1500. Water, Dirt, and Earth's Environment. 4. [SE◀PN]. Introductory environmental geology course focusing on water and soil both as hazards and as life-sustaining resources. Explores surface processes and climate change over geological and human timescales. Case studies illustrate the environmental tradeoffs of resource use. Cross listed with GEOL 1500.

2000. Environment and Society. 3. [G◀COM2] Develops understanding of the nature and dimensions of environmental and natural resource issues. Explores ways in which elements of society approach, evaluate, and develop positions relative to environmental issues. Uses case studies to illustrate the contemporary and historical role of individuals and societies in identifying and addressing environmental issues at scales ranging from local to global.

2030. History and Environmental Science. 3. [(none)◀H] This course is designed as an introduction to both the historical work of environmental historians and the scientific work of environmental scientists. No previous background in either history or science is required. Cross listed with HIST 2030.

2100 [BOT 2100]. Forest Management. 3. Principles of forest management. Topics include the laws affecting forest management, methods of harvesting wood from forests, fire and insect management, the effects of disturbances on stream flow and nutrient cycling, and the challenges of developing management plans for forests. Cross listed with RNEW 2100. *Prerequisite:* LIFE 1001 or 1010.

2330. Environmental Ethics. 3. [CH◀(none)] Introduces students to ethical theory in environmental problem cases, and to philosophical issues in environmental philosophy. Ethical theories include natural law, utilitarianism, deontological and rights-based

theories, relativism. Topics may include: conservation/preservation, resource management, pollution, overpopulation, factory farming, Leopold's land ethic, deep ecology, holism, eco-feminism. Cross listed with PHIL 2330.

2345. Natural Resource Ethics. 3. [CH,D◀(none)] Introduces students to ethics in context of natural resource extraction, use, conservation, preservation, and distribution. Ethical frameworks include teleological and deontological theories primarily applied to human needs and wants. Concepts and applications of environmental justice are addressed, including private property, sustainability, and obligations to future generations. Cross listed with PHIL/RNEW 2345.

2450. Fish and Wildlife Management in the Anthropocene. 4. [(none)◀COM2] Course examines fundamental principles in management of natural resources, especially fish and wildlife populations. Students explore historical to contemporary context of management, population biology, management tools and their application, career opportunities, with specific emphasis on human dimensions, law, and policy. Students will develop oral and written communication skills. Cross listed with ZOO 2450. *Prerequisites:* LIFE 1010, LIFE 2022, and COM1.

2800. Introduction to Outdoor Leadership. 3. Designed to increase knowledge and competencies related to leading others in the outdoors. Significant focus is on self-awareness, judgment, and decision-making. The specific skills and theories students learn throughout provide a foundation for other leadership endeavors. *Prerequisite:* consent of instructor.

3000 [4000]. Approaches to ENR Problem Solving. 3. [CS,WB◀H] Provides an introduction to environmental and natural resources problem solving and decision making. Students learn how scholars and practitioners define and structure ENR problems for management and policy decision making. Additionally, students learn approaches, processes and techniques that address problems analytically and in a values-oriented context. *Prerequisite:* ENR 2000.

3050. Cultures of Nature in the United States. 3. Uses artistic, philosophical, historical and literary material to investigate how ideas about and representations of nature have changed over time in the U.S. Culminates in an examination of a wide range of contemporary environmental ideas within this broad historical and cultural context. Cross listed with AMST/WMST 3050. *Prerequisite:* 2000-level course in one of the following departments:

AMST, American history, American literature, or a 2000-level course approved for the ENR program.

3100. Principles of Wildland Water Quality. 3. Basic principles of aquatic chemistry and water quality as they relate to watershed management practices including livestock production, agronomic production, mineral and natural gas extraction and other land uses. Cross listed with REWM 3100. *Prerequisite:* CHEM 1000. (Normally offered fall semester)

3130. Environmental Quality. 3. Introduction to environmental quality issues and events. Course emphasizes impacts to soil, water, atmospheric, and vegetative ecosystems due to different nutrients and contaminants, including nitrogen, phosphorus, sulfur, trace elements, and organic chemicals. Current information pertaining to environmental quality is discussed and a field trip to the Union Pacific Tie Plant. Cross listed with SOIL 3130. *Prerequisite:* complete at least 1 University Studies Science course SB, SP or SE. (Offered fall semester)

3300. Environmental Policy, Conservation and Development in India. 3. [(none)◀COM2] This course will focus on India's environmental policies pertaining to conservation and development. Case studies will be used to understand how these policies were developed, put in place, and their intended and actual outcomes. Students are required to select a suitable topic and conduct research and submit a research report. *Prerequisite:* WA/COM1 course.

3450 [G&R 3450]. Weather and Climate. 3. Systematically examines elements and controls of weather and climate with application to regions. Cross listed with GEOG 3450. *Prerequisite:* GEOG 1000, 1010 or 1020. (Normally offered fall semester)

3620. Environmental Justice. 3. Examines core philosophical understandings of justice and applies them to the environment through a variety of case studies, analytical essays and monographs. Cross listed with POLS 3620. *Prerequisite:* POLS 1000, POLS 2460, or POLS 3600, or permission of instructor.

3700. Wyoming Conservation Corps Practicum. 1-2. Required for students entering the WCC. Students will be required to make weekly journal entries and write a paper on a topic germane to their WCC experience. Additionally, necessary training for the Wyoming Conservation Corps program will be included in the course content. *Prerequisites:* Acceptance into the Wyoming Conservation Corps program.

3750 [4750]. Natural Resource Planning and Economics. 3. Economic concepts and rudimentary analytical tools are applied to federal, state and local natural resource planning and management programs. The value of economic input into natural resource policy is examined. Evaluating tradeoffs and resolving conflicts play a particularly important role in the course content. Cross listed with AGECE 3750. *Prerequisites:* QA, WA and junior standing. (Offered spring semester of odd-numbered years)

3900. Seminar in Environment and Natural Resources. 1-3 (Max. 3). Examines research and policy perspectives by a variety of authorities on selected environment and natural resource problems and issues. *Prerequisite:* ENR 3000.

3950. Environmental Sociology. 3. Explores how ecology, technology, politics, economics, and culture intersect. By analyzing key contemporary environmental debates, students will develop an understanding of sociological analyses, and the impact of social life on our environment, as well as the effect of the environment on social life. Topics covered include: the environmental movement; sustainable development; developing nations and their environment; capitalism and technology; and environmental justice. Cross listed with SOC 3950. *Prerequisite:* SOC 1000.

4010. Winter Ecology: Skills of the Winter Naturalist. 1. Emphasizes field naturalist skills, the effects of winter abiotic conditions on organisms and subsequent adaptations to these conditions, animal tracking, introduction to snow dynamics and winter safety. *Prerequisite:* 6 hours of ENR or science courses.

4011. Winter Ecology: Snowpack Science and Dynamics. 1. Emphasizes snow science and avalanche safety through lectures and inquiry-based field laboratories. *Prerequisite:* 6 hours of ENR or science courses.

4012. Winter Ecology: Wildlife and Plant Adaptations. 1. Emphasizes animal and plant adaptations to cope with the stresses of winter, as well as the predicted impacts of climate change, through lectures and inquiry-based field laboratories. Students also conduct field research in a winter environment. *Prerequisite:* 6 hours of ENR or science courses.

4030. Ecology of Knowledge. 3. Examines the development of “disciplines” and explores definitions, theories, methods and practices of interdisciplinary work. Cross listed with AMST 4030. Dual listed with ENR 5030. *Prerequisite:* 3 hours in any interdisciplinary program.

4040 [G&R 4040]. Conservation of Natural Resources. 3. [CS◀(none)] Geographically analyzes conservation of natural and human resources, as well as political, social and ethical ramifications of our environmental policy. Cross listed with BOT/GEOG 4040. *Prerequisite:* 6 hours of geography or ENR.

4051. Environmental Politics. 3. Analyzes environmentalism as a political phenomenon. Provides students with a basic understanding of how to analyze political issues by: (1) examining the historical and contemporary issues that produce controversy over environmental matters; and (2) surveying the impacts of these issues on the formulation and implementation of laws, policies, and regulations. Cross listed with AMST, POLS, GEOG and REWM 4051. *Prerequisite:* POLS 1000.

4052. Federal Land Politics. 3. Examines the political forces that have shaped and continue to shape federal land policy and management. Explores the interactions between democratic decision making and science in the management of federal lands. Surveys the sources of controversy over federal land management and methods for harmonizing public demands with technical expertise. Cross listed with POLS/AMST/GEOG/REWM 4052. *Prerequisite:* POLS 1000.

4240. Disease Ecology. 3. Introduction to 1) how interactions among species, ecosystems, human systems, and abiotic components of the environment affect patterns and processes of disease, and 2) considerations for coevolution of hosts and pathogens, conservation biology, models used to understand disease dynamics, and approaches to manage and control disease in animals, plants, and humans. Dual listed with ENR 5240. Cross listed with PATB 4240. *Prerequisites:* LIFE 2022 or 2023 and STAT 2050 or 2070.

4285. Wildland Hydrology. 3. Teaches essential and unique characteristics of hydrologic cycle as occurs on range and forest lands, concentrating on quantification of these processes and storages. Cross listed with REWM 4285. Dual listed with ENR 5285. *Prerequisite:* graduate standing and University Studies QA.

4310. Environmental Anthropology. 3. Addresses how human societies interact with their surroundings, emphasizing cultural understandings of the environment. Introduces variety of theoretical and methodological approaches to topics ranging from problems of the American West to global environmental change. Cross listed with ANTH 4310. Dual listed with ENR 5310. *Prerequisite:* ANTH 1200. (Normally offered every third semester)

4412. Global Environment History. 3. [(none)<>H] This course is designed to introduce undergraduate and graduate students to the new field of global environmental history. The Global Environment History course will provide a new way of looking at humans, animals, and the lives they’ve built in the environment and the costs of their decisions to the environment. Cross listed with HIST 4412. *Prerequisite:* 9 hours of HIST or ENR.

4420. Conservation Biology. 3. Addresses the broadest environmental issues facing society (habitat loss, invasion, overexploitation) and the mechanisms driving them, with particular attention to the Intermountain West. Through computer exercises, students also learn how to evaluate conservation efforts and make management recommendations. Cross listed with BOT/ZOO 4420. *Prerequisites:* LIFE 3400 and one of the following: ENR 3500, STAT 2050, or STAT 2070.

4430. Green Chemistry and Global Environmental Problems. 3. Focus includes study of the chemistry of air, water, and soil as well as the effects of anthropogenic activities on natural processes. Emphasis is also placed on sustainability and green chemistry practices and technologies. Cross listed with CE/CHE 4430. *Prerequisite:* CHEM 1020.

4450. Negotiation. 3. Examines how to use negotiation to resolve conflict and get agreement. Describes conflict; outlines ways to address conflict; examines different negotiation strategies and the impact of cognitive bias, power, ethics, and individual and cultural differences; and explores mediation practices. Students complete negotiations, role-plays, and questionnaires. Cross listed with AGECE 4450. Dual listed with ENR 5450. *Prerequisite:* completion of USP O requirement; junior standing.

4500. Risk Analysis. 4. [QB◀(none)] Introduces basic concepts of risk analysis, including risk perception, identification, assessment, communication, management, and policy. Provides quantitative treatment of risk assessment procedures, fundamental mathematical models, and the concepts of variability and uncertainty; and practical experience in risk analyses conducted by teams of students. Emphasizes environment and natural resource examples. Laboratory. Dual listed with ENR 5500. *Prerequisites:* MATH 1000 or 1400, introductory statistics and familiarity with Excel spreadsheets.

4525. Environmental Data Analysis. 4. Explores fundamentals of environmental data analysis including the display and description of data, uncertainty propagation, statistical

significance and power, t-tests, ANOVA, time series, serial correlation, multiple regression, and sample collection strategies. Students must enroll in a computer-based lab session and complete a term project involving real-world problems in data analysis. Dual listed with ENR 5525. Cross listed with GEOL 4525/5525. *Prerequisites:* A grade of C or better in STAT 2050 or STAT 2070 or MATH 2200, junior standing or higher, and completion of at least one upper-division course in the natural sciences or a related field.

4550 [4700]. Negotiation Analysis. 3. Focuses on using an analytical perspective for maximizing joint gains between negotiators. Students learn analytical techniques to prepare for negotiation, evaluate options and proposals during a negotiation, and evaluate negotiated outcomes with respect to maximization of joint gains and fairness criteria. Dual listed with ENR 5550; Cross listed with AGECE 4550. *Prerequisite:* QA.

4600. Campus Sustainability. 3. Uses campus as a setting to explore long-term environmental, economic, and social sustainability theory and practice. Students design and implement a semester-long project to improve sustainability of the UW campus. This interdisciplinary course is appropriate for students of all disciplines. Dual listed with ENR 5600; cross listed with MKT 4600. *Prerequisites:* junior or senior standing.

4700. Media, Science, and Society. 3. This course discusses why scientific, health, and environmental issues are covered in particular ways in media. We will also examine how these messages impact people's attitudes, opinion, knowledge, and emotions about science, health, and the environment. Dual listed with ENR 5700; cross listed with COJO 4700. *Prerequisites:* COJO 1000 or ENR 1200 or ENR 1500 or ENR 2000.

4750. ENR Law and Policy. 3. Explores the policy underpinnings of environmental and natural resource issues and the legal responses to these problems. Students will gain a basic understanding of: (1) the causes of environmental problems, including energy, water, wildlife, and other western land use issues; (2) the range of policy and instrument choices; and (3) the approaches actually taken in current laws. Students also will apply the law in an interdisciplinary, problem-based learning context. Dual listed with ENR 5750. *Prerequisites:* ENR 2000 and upper division standing or permission of instructor.

4800. Historic Preservation. 3. Review of the roots of historic preservation in Western culture with an emphasis on the historical and

legal context of architectural conservation in America. Current issues in preservation are examined through case studies and guest presentations. Cross listed with AMST 4800. Dual listed with ENR 5800. *Prerequisite:* ARE 3020 or AMST 5400.

4890 [4990]. Topics in Environment and Natural Resources. 1-6.0 (Max. 12). Special topics in environment and natural resources are offered under this number. The specific subject matter varies each year because the course is normally taught by faculty who wish to present a specialized topic of interest to ENR and other students. Check class schedule for specific topics offered each year. Dual listed with ENR 5890. *Prerequisites:* ENR 3000 or permission of the instructor.

4900. ENR Policy in Practice. 3. [WC◀COM3] Encompasses student resolution in multidisciplinary teams of environmental and natural resource problems and issues; practice in formulating policy alternatives; case studies; planning, performing and coordinating multidisciplinary research. Dual listed with ENR 5900. *Prerequisite:* ENR 3000.

4950. Leadership in Natural Resources Management. 2. Provides Crew Leaders in the Wyoming Conservation Corps with an understanding of the complex dynamics of natural resources management while also equipping students with the tools to confidently lead groups of students on conservation-oriented service-learning projects on Wyoming's public lands during the summer months. Dual listed with ENR 5950; cross listed with ERS 4950. *Prerequisites:* ENR 3700 and consent of instructor.

4960. Field Studies in: 1-6. Field-based courses in Environment and Natural Resources are taught under this number. The specific subject matter varies depending upon the location and content of each courses. Students frequently need to apply in advance. *Prerequisite:* 6 credits of ENR coursework.

4970. ENR Internship. 1-6 (Max. 6). Provides practical experience in environmental and natural resource policy, management and decision processes, as well as interaction with professionals in the field. Offered S/U only. *Prerequisite:* ENR 3000.

4975. Independent Study. 1-6 (Max. 6). Offers students the opportunity to independently complete special academic studies under direction of a faculty member. Readings, papers, and projects are completed as directed. Dual listed with ENR 5975. *Prerequisite:* 6 credits in ENR.

5000. Approaches to Environment and Natural Resources Problem-Solving. 3. Explores important environmental policy, collaborative and adaptive decision-making and the integration of diverse disciplines in the study and resolution of complex ENR challenges. This is the first course in the ENR Capstone series (along with ENR 4900) and the students should take both capstone courses in the same academic year. Dual listed with ENR 4000. *Prerequisite:* USP WA course.

5030. Ecology of Knowledge. 3. Examines the development of "disciplines" and explores definitions, theories, methods and practices of interdisciplinary work. Cross listed with AMST 5030. Dual listed with ENR 4030. *Prerequisite:* graduate status.

5050. Techniques in Environmental Data Management. 4. Centers on the role of information technology in support of scientific research. Through integration of multiple software packages (e.g. Relational databases, ProgramR and ArcGIS), proven database designs, and SQL scripting, increased efficiency and utility will occur during data analyses. These information science principles are demonstrated using project-based examples. Cross listed with ECOL/GEOG 5050. *Prerequisite:* graduate standing.

5150. Environmental Science: Perspectives and Methods. 3. This course will use complex, real-world environmental challenges to explore fundamental scientific principles. Students will learn how scientists tackle environmental issues by formulating objectives, collecting and analyzing scientific data, as well as to critically evaluate information sources and limitations to scientific approaches due to constraints associated with each study. *Prerequisite:* graduate standing.

5240. Disease Ecology. 3. Introduction to 1) how interactions among species, ecosystems, human systems, and abiotic components of the environment affect patterns and processes of disease, and 2) considerations for coevolution of hosts and pathogens, conservation biology, models used to understand disease dynamics, and approaches to manage and control disease in animals, plants, and humans. Dual listed with ENR 4240. Cross listed with PATB 5240.

5270. Writing and Reviewing Science. 4. This course will help students prepare a scientific manuscript for submission to a peer-reviewed journal; in so doing, students will become more effective, efficient, and confident writers. Students will learn principles of effective writing, how to prepare a manuscript for publication, navigate the peer-review process, and write a constructive review. Cross listed

with ZOO 5270. *Prerequisite:* Students must have graduate standing and an analyzed dataset on which the manuscript will be based. Students must have approval from their advisors and key collaborators before embarking on this journey. Students are also encouraged to maintain this approval throughout the semester.

5285. Wildland Hydrology. 3. Teaches essential and unique characteristics of hydrologic cycle as occurs on range and forest lands, concentrating on quantification of these processes and storages. Cross listed with REWM 5285. Dual listed with ENR 4285. *Prerequisite:* graduate standing and University Studies QA.

5310. Environmental Anthropology. 3. Addresses how human societies interact with their surroundings, emphasizing cultural understandings of the environment. Introduces variety of theoretical and methodological approaches to topics ranging from problems of the American West to global environmental change. Cross listed with ANTH 5310. Dual listed with ENR 4310. *Prerequisite:* ANTH 1200.

5450. Negotiation. 3. Examines how to use negotiation to resolve conflict and get agreement. Describes conflict; outlines ways to address conflict; examines different negotiation strategies and the impact of cognitive bias, power, ethics, and individual and cultural differences; and explores mediation practices. Students complete negotiations, role-plays, and questionnaires. Cross listed with AGECE 5450. Dual listed with ENR 4450. *Prerequisite:* completion of USP O requirement; junior standing.

5500. Risk Analysis. 4. Introduces basic concepts of risk analysis, including risk perception, identification, assessment, communication, management, and policy. Provides quantitative treatment of risk assessment procedures, fundamental mathematical models, and the concepts of variability and uncertainty; and practical experience in risk analyses conducted by teams of students. Emphasizes environment and natural resource examples. Laboratory. Dual listed with ENR 4500. *Prerequisites:* MATH 1000 or 1400, introductory statistics and familiarity with Excel spreadsheets.

5525. Environmental Data Analysis. 4. Explores fundamentals of environmental data analysis including the display and description of data, uncertainty propagation, statistical significance and power, t-tests, ANOVA, time series, serial correlation, multiple regression, and sample collection strategies. Students must enroll in a computer-based lab session and complete a term project involving real-

world problems in data analysis. Dual listed with ENR 5525. Cross listed with GEOL 4525/5525.

5550 [5700]. Negotiation Analysis. 3. Focuses on using an analytical perspective for maximizing joint gains between negotiators. Students learn analytical techniques to prepare for negotiation, evaluate options and proposals during a negotiation, and evaluate negotiated outcomes with respect to maximization of joint gains and fairness criteria. Dual listed with ENR 4550; Cross listed with AGECE 5550. *Prerequisite:* QA.

5600. Campus Sustainability. 3. Uses campus as a setting to explore long-term environmental, economic, and social sustainability theory and practice. Students design and implement a semester-long project to improve sustainability of the UW campus. This is an interdisciplinary course and is appropriate for students of all disciplines. Dual listed with ENR 4600; cross listed with MKT 5600. *Prerequisite:* USP WB course.

5700. Media, Science, and Society. 3. This course discusses why scientific, health, and environmental issues are covered in particular ways in media. We will also examine how these messages impact people's attitudes, opinion, knowledge, and emotions about science, health, and the environment. Dual listed with ENR 4700; cross listed with COJO 5700. *Prerequisite:* graduate standing.

5750. ENR Law and Policy. 3. Explores the policy underpinnings of environmental and natural resource issues and the legal responses to these problems. Students will gain a basic understanding of: (1) the causes of environmental problems, including energy, water, wildlife, and other western land use issues; (2) the range of policy and instrument choices; and (3) the approaches actually taken in current laws. Students also will apply the law in an interdisciplinary, problem-based learning context. Dual listed with ENR 4750. *Prerequisites:* ENR 2000 and upper division standing or permission of instructor.

5800. Historic Preservation. 3. Review of the roots of historic preservation in Western culture with an emphasis on the historical and legal context of architectural conservation in America. Current issues in preservation are examined through case studies and guest presentations. Cross listed with AMST 5800. Dual listed with ENR 4800. *Prerequisite:* ARE 3020 or AMST 5400.

5870. Graduate Seminar. 1 (Max. 6). Faculty-student discussion, reading, and study focused on a selected topic and interest. *Prerequisite:* graduate standing.

5890. Topics in Environment and Natural Resources. 1-6 (Max. 12). Special topics in environment and natural resources are offered under this number. The specific subject matter varies each year because the course is normally taught by faculty who wish to present a specialized topic of interest to ENR and other students. Check class schedule for specific topics offered each year. Dual listed with ENR 4890. *Prerequisite:* ENR 5000 or consent of instructor.

5900. ENR Policy in Practice. 3. Encompasses student resolution in multidisciplinary teams of environmental and natural resource problems and issues; practice in formulating policy alternatives; case studies; planning, performing and coordinating multidisciplinary research. Dual listed with ENR 4900. *Prerequisites:* graduate standing and ENR 5000.

5920. Collaborative Practice Methods. 3. This course introduces students to the principles, concepts, and methods of collaborative decision making as it is practiced in a variety of settings. Students acquire collaborative skills and competencies in collaborative processes such as working in teams and facilitating groups, negotiating and managing conflict, conducting situation assessments and issue analyses, and developing methods and standards for integrating technical information in collaborative decision making. The course will involve extensive use of cases, role-plays, and related participative activities. *Prerequisite:* Admission by consent of instructor.

5921. Collaborative Practicum. 1 (Max. 3). Under the guidance and instruction of ENR faculty, students will have the opportunity to apply the skills and information gained in ENR 5920 to real-world situations. Students will gain practical experience in collaboration, facilitative leadership, and conflict resolution and to develop and refine skills in one or more of the learning objectives and expected competencies. *Prerequisite:* ENR 5920.

5950. Leadership in Natural Resources Management. 2. Provides Crew Leaders in the Wyoming Conservation Corps with an understanding of the complex dynamics of natural resources management while also equipping students with the tools to confidently lead groups of students on conservation-oriented service-learning projects on Wyoming's public lands during the summer months. Dual listed with ENR 4950; cross listed with ERS 5950. *Prerequisites:* ENR 3700 and consent of instructor.

5961. Plan B Projects. 2 (Max. 6). Limited to students enrolled in a Plan B graduate program. Students will be involved in non-course scholarly activities in support of the Plan B project. Restricted to ENR graduate students.

5975. Independent Study. 1-6 (Max. 6). Offers students the opportunity to independently complete special academic studies under direction of a faculty member. Readings, papers, and projects are completed as directed. Dual listed with ENR 4975. *Prerequisite:* 6 credits in ENR.

Environmental Systems Science (ESS)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB◀▶Q]).

1000. Wyoming in the Earth System. 3. [I,L▶(none)] Introduces the study of environmental systems science by investigating Earth's atmosphere, atmosphere, biosphere, and lithosphere. Studying Wyoming's unique environments and current issues, students will access, analyze, and interpret data to understand how natural and human-caused changes influence larger Earth and environmental systems.

2000. Geochemical Cycles and the Earth System. 4. [SE▶(none)] Introduces the Earth system, including the solid Earth, hydrosphere, biosphere and atmosphere. Emphasizes the evolution of the Earth, rock associations and geochemical cycles. Cross listed with GEOL 2000. *Prerequisites:* a 1000-level GEOL course with a lab and concurrent enrollment in CHEM 1020. (Normally offered fall semester)

3480. Environmental Change. 3. [G,WB▶(none)] Examines changes in the bio-physical environments and landscapes of Earth during its habitation by humans. Emphasizes integrated approaches to understanding environmental changes based on climatological, ecological, geological, archeological, and historical evidence. Explores how humans have modified Earth's environments and how societies have responded to natural and anthropogenic environmental change. Cross listed with GEOG 3480. *Prerequisites:* GEOG 1010 or any USP PN course and USP COM1.

4001. Modeling the Earth System. 4. Takes a modeling approach to demonstrate how the Earth is integrated into an interconnected system through exchanges of energy and matter, and how Earth system functioning is susceptible to human alteration. Unifying concepts focus on quantitative interactions between the Earth and the Sun, and between the Earth's

lithosphere, hydrosphere, biosphere and atmosphere. Cross listed with ATSC/BOT/GEOL 4001. *Prerequisites:* MATH 2205 or equivalent and [ESS 2000 or GEOL 2000].

4780. Biogeochemistry. 3. A comprehensive treatment of biogeochemistry with emphasis on biogenic elements and biological processes. Reviews occurrence of elements, their behavior in the biosphere, and how their cycles are affected by humans. Dual listed with ESS 5780. Cross listed with BOT 4780. *Prerequisite:* Consent of instructor.

4950. Exploring the Earth System. 3. [WC▶COM3] Conduct critical and interdisciplinary assessments on complex topics addressing physical, biological, and human components of the Earth System. Through multiple written, oral, and digital communication products, students will work independently and collaboratively to critically review existing literature, define knowledge gaps, analyze evidence, and synthesize results for multiple audiences. *Prerequisites:* ESS 1000 and either ESS 3480 or ENR 3450.

4970. Internship in Earth System Science. 1-6 (Max. 6). Offers students an individualized opportunity to connect their academic training, professional experiences, and future goals. Students must first consult with their Haub School advisor and have completed and appropriate internship, professional and/or applied experience that provides exposure to complex environmental systems, scientific practices, and relevant interactions in the professional world. *Prerequisite:* ESS 1000.

5780. Biogeochemistry. 3. A comprehensive treatment of biogeochemistry with emphasis on biogenic elements and biological processes. Reviews occurrence of elements, their behavior in the biosphere, and how their cycles are affected by humans. Dual listed with ESS 4780. Cross listed with BOT 5780. *Prerequisite:* Consent of instructor.

Outdoor Recreation and Tourism Management (ORTM)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB▶Q]).

1000. Foundations of Recreation and Tourism. 3. Introduces the conceptual foundations, array of services, and management with recreation and tourism. Primary focal points for this course include historical and psychological underpinnings, market trends, types of resources and services, cultural, economic,

political, and legal considerations, and career opportunities. Emphasizes the relationship to resource stewardship.

1050. Natural and Cultural Resources of the West. 3. The American West is an attraction for visitors, largely due to its unique sense of place, blend of people and culture, history and natural resources. Within the context of outdoor recreation and cultural/historical tourist attractions, students will examine diverse natural and cultural resources.

2000. Foundations of Customer Service and Hospitality. 3. Customer service and hospitality are fundamental to providing high-quality services. This course examines critical elements of excellent customer service in the tourism industry, including transportation, accommodation, food and beverage, and attractions. Students will develop communication skills relating to customer service, self-presentation, and interpersonal interactions, including international and cultural communications.

2050. Program Planning, Design and Delivery. [(none)▶COM2] Design, delivery, and marketing of programs to diverse and inclusive audiences. Students will utilize tools, analytics, and techniques in both the direct supply and facilitation of a planned experience. Students will design and implement a program to a non-peer group. *Prerequisite:* ORTM 1000.

3000. Tourism Theory and Practice. 3. Tourism is a dynamic system of global interconnection that impacts human and natural environments in myriad ways. This course examines the behavioral, social, economic, political, and environmental issues implicated in and affected by tourism and its industries. Students will develop a critical understanding of the implications on the practice of tourism today. *Prerequisite:* junior standing.

3050. Operations, Management and Environmental Stewardship. 3. Operations and management are critical aspects of the successful delivery of quality recreation and tourism experiences. Students will evaluate environmental stewardship challenges and potential solutions with the integration of operations and management. Students will develop an understanding of functions that are critical to operational leadership, such as revenue management (budgeting, cost controls, profit centers), and human capital management. *Prerequisites:* ORTM and junior standing.

4900. Outdoor Recreation and Tourism Management Business Strategies. 3. Application of the successful delivery of hospitality, tourism, and outdoor recreation enterprises. Business activities covered include tourism-

specific marketing, market-based research and analytics, regional challenges and opportunities, business plan components, financial risk analysis, and law and policy. Restricted to ORTM majors only. *Prerequisites:* Senior standing, ORTM 3050.

4901. Human Dimensions of Outdoor Recreation and Tourism Management. 3. This course synthesizes social, environmental, and economic aspects of outdoor recreation and tourism by examining social science methods and research conducted within these spheres. This course will be an applied experience in learning how to answer the question “Why do recreationists and tourists do what they do?” Restricted to ORTM majors only. *Prerequisites:* Senior standing, ORTM 3050.

4902 Recreation Venue Operations. 3. Applied best practices of resource and facility management in conjunction with recreation use and infrastructure development and maintenance. Students will examine the importance and challenges of matching user expectations with quality amenities of both private business and resource management agencies. Students will evaluate real-world problems and opportunities. Restricted to ORTM majors only. *Prerequisites:* Senior standing, ORTM 3050.

4903. Capstone. 3. [(none)◀▶COM3] Integrates theory and practice to create solutions for real-world problems and opportunities in outdoor recreation and tourism. Industry or government sponsors will mentor projects; students will research and execute a project and share a product with direct value to the sponsor and community. Restricted to ORTM majors only. *Prerequisites:* Senior standing, ORTM 3050.

4975. Independent Study. 1-6 (Max. 6). Supervised study and investigation in topics related to students’ research. *Prerequisite:* junior standing.

4970. Internship. 1-6 (Max. 6). Provides students the potential to succeed as professional at management or higher levels in park, recreation, tourism, or related organizations. Internships are required to be at least 400 clock hours, and no fewer than 10 weeks. Please discuss the criteria and requirements of employers/sponsors and students with your advisor. restricted to ORTM majors only. *Prerequisites:* Any ORTM class and junior standing.

Geospatial Information Science and Technology

Wyoming Geographic Information Science Center
337 Agriculture C Building

Kenneth Driese, Program Director
(307)766-2532
Web site: www.uwyo.edu/WyGISC

In fall 2019, the Wyoming Geographic Information Science Center (WyGISC) began offering undergraduate and graduate courses in geospatial information science and technology under the GIST prefix. These courses provide fundamental geospatial science education to undergraduate and graduate students from across disciplines at UW and will contribute to a proposed multidisciplinary program in GIST that is being developed. Some GIST courses will eventually replace courses that have been taught under the GEOG prefix. These courses are appropriate for both science and non-science majors. They cover core geospatial concepts including Geographic Information Systems (GIS), remote sensing, spatial data analysis, spatial visualization, spatial databases, cartography, and programming.

Associate Professor:

CHEN XU, B.S. Sichuan University, China 1999; M.S. Sam Houston State University 2005; Ph.D. Texas A&M University 2010; Associate Professor of Geospatial Information Science and Technology 2019.

Academic Professionals:

SHANNON E. ALBEKE, B.A. University of Colorado, Boulder 1997; Ph.D. University of Georgia 2010. Associate Research Scientist 2019, 2010.

KENNETH L. DRIESE, B.S. University of Virginia 1981; M.S. University of Wyoming 1992; Ph.D. 2004; Senior Lecturer in Geospatial Information Science and Technology 2019, 2002.

JEFFREY D. HAMERLINCK, B.S. University of North Dakota 1988; M.P. University of Wyoming 1992; Ph.D. University of Colorado - Boulder 2011; Senior Research Scientist 2004.

PADDINGTON HODZA, BSC, University of Zimbabwe, 1994; MSC, University of Zimbabwe, 1998; Ph.D. West Virginia University, 2007; Associate Research Scientist 2016, 2013.

RAMESH SIVANPILLAI, B.Sc. Bharathiar University 1987; M.Sc. Cochin University of Science and Technology 1990; M.Phil. Bharathiar University 1992; M.S. University of Wisconsin, Green Bay 1995; Ph.D. Texas A&M University 2002; Senior Research Scientist 2012.

Proposed Geographic Information Science and Technology Degrees and Certificates

Pending program approval, GIST courses will contribute to a set of proposed undergraduate and graduate academic credentials that are described here for student information. These include a Bachelor of Science Degree in GIST, two undergraduate certificates in GIST and remote sensing, each of which contribute to the B.S. degree, a traditional Master's degree with thesis, an online professional Master's Degree without thesis, and three online graduate certificates in GIST, remote sensing, and UAS (drones).

Although program approval is pending, some GIST courses can contribute retroactively to the proposed degrees and certificates.

Drawing on domain expertise from geography, computer science, mathematics, statistics, psychology, design, and others, geospatial information science refers to the multidisciplinary research enterprise that addresses the nature of geospatial information and the application of geospatial technologies to basic scientific questions. Geospatial information technology is a specialized set of information and communication technologies that support the acquisition, management, analysis, and visualization of geo-referenced data. Examples include: geographic information systems; global navigation satellite systems; and satellite, airborne, shipboard and ground-based remote sensing and image processing systems.

Successful students in Geospatial Information Science and Technology (GIST) combine proficiency in spatial thinking and geospatial data science analysis with fluency in geographic information systems, remote sensing, data analytics, and visualization. As professionals, graduates apply their knowledge and skills in a wide range of fields, from environmental management and public health, to civil engineering and urban planning, to economic analysis and marketing.

Courses listed in degree plans that are not described in the GIST course list are under development and will be added in future catalogs as they are approved.

Geospatial Information Science and Technology (GIST) Bachelor of Science (Proposed)

The proposed Bachelor of Science degree in GIS&T will provide students with a strong education in a broad range of skills necessary for success in this growing field. This proposed degree will also require that students earn a minor in a second discipline. Evidence suggests that students with GIST skills combined with knowledge of another field enjoy increased job opportunities.

FRESHMAN YEAR: Fall		Hrs.
First-Year Seminar (FYS).....		3
GIST 1001.....		1
GIST 1100*.....		3
MATH 1400 (or MATH 1450).....		3
ENGL 1010 (COM1).....		3
Total Hours		13

FRESHMAN YEAR: Spring		Hrs.
U.S. & WY Constitutions (V).....		3
GIST 2100*.....		4
MATH 1405 (or MATH 1450).....		3
STAT 2050 or 2070.....		4
Minor Core Course.....		3
Total Hours		17

SOPHOMORE YEAR: Fall		Hrs.
Human Culture (H).....		3
GIST 2200*.....		3
GIST 2150*.....		3
Minor Core Course.....		3
Elective.....		3
Total Hours		15

SOPHOMORE YEAR: Spring		Hrs.
Human Culture (H).....		3
GIST 2250 (COM2).....		3
Minor Core Course.....		3
GIST Electives.....		6
Total Hours		15

JUNIOR YEAR: Fall		Hrs.
GIST 3111**.....		3
GIST Electives.....		6
Minor Electives.....		6
Total Hours		15

JUNIOR YEAR: Spring		Hrs.
GIST 3050.....		3
GIST Upper Division Electives.....		6
Upper Division Electives.....		3
Minor Electives.....		3
Total Hours		15

SENIOR YEAR: Fall	Hrs.
GIST 4990.....	6
GIST Upper Division Electives.....	6
Minor Electives (Upper Division).....	3
Total Hours	15
SENIOR YEAR: Spring	Hrs.
GIST Upper Division Electives.....	6
Upper Division Electives.....	6
GIST 4780 (COM3).....	3
Total Hours	15
Total Credit Hours	120

*Courses contributing to undergraduate certificate in GIST

**Course contributing to undergraduate certificate in Remote Sensing (with 6 credits of remote sensing electives)

Geospatial Information Science Master of Science with Thesis (Proposed)

The proposed Master of Science degree with thesis will be delivered mainly on the UW campus. Students will be paired with a graduate advisor who will guide their thesis research and chair their graduate committee. This degree will require a combination of core and elective courses that typically will follow the sequence outlined below for completion in 2 years.

Semester 1

- GIST 5100 Foundations of GIS&T (3)
- GIST 5150 Advanced Programming in the Spatial Sciences (3)
- GIST 5200 Geographic Visualization (3)

Semester 2

- GIST 5050 Database Design and Management (3)
- GIST 5220 Spatial Modeling and Data Analysis (3)
- GIST Elective (3)

Semester 3

- GIST Electives (9)

Semester 4

- GIST 5002 Geospatial Forum (1)
- GIST 5960 Thesis Research (4-12)

Master of Science without Thesis (Proposed)

The proposed non-thesis Master of Science Degree is a professional degree that will be delivered primarily online. It provides a pathway for both traditional students and professionals to earn a graduate credential in 2 years as outlined below.

Course sequence for Master's degree without thesis

Semester 1

- GIST 5100 Foundations of GIS&T (3) (on campus and online)
- GIST 5150 Advanced Programming in the Spatial Sciences (3) (on campus and online)
- GIST 5200 Geographic Visualization (3) (on campus and online)
- GIST 5280 Professionalism in GIS&T (1) (online)

Semester 2

- GIST 5050 Database Design and Management (3) (on campus and online)
- GIST 5220 Spatial Modeling and Data Analysis (3) (on campus and online)
- GIST Elective (3) (on campus and online)

Semester 3

- GIST 5350 Enterprise Systems (3) (online)
- GIST 5300 Web Services/Internet GIS (3) (online)
- GIST 5002 Geospatial Forum (1) (on campus and online)
- GIST GIST Electives (3) (on campus and online)

Semester 4

- GIST 5780 Capstone (3)

Graduate Certificates (Proposed)

Graduate certificates provide a means for students and professionals to earn marketable credentials over the course of 1-2 semesters. These certificates require a combination of core and elective courses as outlined below, and will be delivered primarily online.

Graduate Certificate in Geospatial Information Science and Technology (15 credits)

Core (6 credits)

- GIST 5100 Foundations of GIS&T (3)
- GIST 5220 Spatial Modeling and Data Analysis (3)

Electives (9 credits)

Choose from other GIST courses (see M.S. courses) or interdisciplinary courses

Graduate Certificate in Remote Sensing (15 credits)

Core (6 credits)

- BOT/GIST 5111 Introduction to Remote Sensing of the Environment (3)
- GIST 5120 Integrating Remote Sensing and GIS (3)

Electives (9 credits)

Choose from other remote sensing and UAS courses or interdisciplinary RS courses

Graduate Certificate in Unmanned Aerial Systems (8-11 credits)

Core (8 credits)

- GIST 5410 UAS Sensors and Platforms (1)
- GIST 5420 UAS Mission Planning (1)
- GIST 5430 UAS Regulations and Safety (1)
- *GIST 5440 Ground and UAS Operations (2)
- *GIST 5450 UAS Photogrammetry and Digital Image Processing (3)

Electives (3 credits) (may be optional for some graduate students, depending on their program of study)

Choose from remote sensing courses or interdisciplinary UAS applications courses

Geospatial Information Science and Technology (GIST)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB↔Q]).

- 1001. GIST Orientation and Portfolio. 1.** Introduces students to the GIST degree, the resources necessary to be successful in the program, and the broader geospatial field and its impact on society. Topics include a survey of domain applications, the ethical, legal and social implications of using geospatial data, and geospatial certifications and credentialing.
- 1100. Geospatial Foundations. 3.** Provides fundamental knowledge of geospatial information and place-based science across disciplines, including spatial representation, scale, resolution, map projections, and coordinate systems. Students learn how to discover and access spatial data and read and analyze maps. Supports understanding of geospatial reasoning and cognition.

- 2100. Introduction to Geospatial Information Science and Technology. 3.** Introductory course covering fundamental principles

of geographic information systems (GIS). Students will be introduced to both the theory and application of GIS, including GIS components, the nature of geospatial data, methods for data acquisition, database models, and GIS operations. Includes hands-on laboratory exercises using widely-used software.

2150. Introduction to Programming in Geospatial Information Science and Technology. 3. Introductory geospatial programming course covering the basic concepts and features of the Python scripting language, including data structures and functions, and the development of basic GIS scripting skills. Students implement spatial data collection, processing, and presentation methods for automating geospatial analyses.

2160. Survey of Remote Sensing Applications. 3. [(none)◆PN] This course introduces remote sensing by surveying applications across disciplines. It includes a brief overview of fundamentals followed by exploration of types of remote sensing including aerial photography, multispectral and hyperspectral satellite remote sensing, active remote sensing, and thermal remote sensing. The course also introduces remote sensing applications for global change. *Prerequisite:* USP Q; sophomore or junior class standing.

2200. Spatial Data Visualization. 3. Covers fundamental principles, concepts, and applications of spatial data visualization. Students will learn to find, understand, and act on spatial patterns, associations and trends, and to use and critique powerful graphical representations of spatial data including 3D maps, web maps, interactive graphics, and animations.

3111 [BOT 4111; GEOG 4111]. Introduction to Remote Sensing. 3. This is a combined lecture and computer lab course designed to present the physical principles of remote sensing, the application of airborne and satellite imagery to the study of the earth's surface with an emphasis on vegetation, and the hands-on application or remote sensing principles using digital image processing. *Prerequisite:* USP Q.

4130 [BOT 4130]. Applied Remote Sensing for Agricultural Management. 3. Covers remote sensing concepts and applications related to croplands, rangelands, forests, and water. Students learn techniques for monitoring plant growth and vigor, monitoring rangelands, distinguishing invasive species, categorizing forest fires, and mapping water bodies. Students integrate remotely sensed data with other geospatial data. Dual listed with GIST 5130; cross listed with RNEW 4130 and AECL 4130. *Prerequisites:* QA/Q course and 9 credit hours in student's major field and junior/senior standing.

4211 [BOT 4211; GEOG 4211]. Advanced Remote Sensing. 3. On-campus and online course including lecture and digital image processing lab. Explores advanced remote sensing techniques including high spatial and spectral resolution data analysis, active remote sensing (radar and lidar), and advanced image classification. Other advanced topics may be discussed as needed. Dual listed with GIST 5211. *Prerequisite:* GIST 3111 or GIST 4130.

4410. UAS Sensors and Platforms. 1. This 1-credit online course taught over 8 weeks provides a detailed overview of the types of drones used for modern remote sensing and of the sensors that can be used with these different drone platforms to collect data, including RGB and multi-spectral cameras, thermal sensors, and lidar. Dual listed with GIST 5410.

4420. UAS Mission Planning. 1. This 1-credit online course taught over 8 weeks provides a detailed overview of mission planning for UAS (drone) data collection. Students learn to evaluate mission requirements for a variety of UAS applications, to choose appropriate hardware to accomplish these requirements, and to use mission planning software to translate requirements into flight plans and data collection strategies. Dual listed with GIST 5420.

4430. UAS Regulations and Safety. 1. This 1-credit online course taught over 8 weeks provides students with a detailed overview of federal, state, and local regulations pertaining to UAS flights and data collection. Students also learn about how to operate drones safely in both personal and professional applications. Course content helps prepare students for FAA remote pilot certification. Dual listed with GIST 5430.

4440. UAS Ground School and Operations. 2. This field course provides students with the practical experience to operate UAS (drones) safely, legally, and effectively for collecting data to be used in a variety of applications. Students learn about pertinent safety and regulations, and then spend much of the course time flying drones in the field and collecting data. Dual listed with GIST 5440.

4450. UAS Photogrammetry and Image Process. 3. This 3-credit online course provides overviews of the photogrammetric principles related to imagery acquired by unmanned aerial vehicles or drones, and the image processing techniques used for extracting information from the drone images. Students will gain experience in processing drone imagery collected with RGB cameras and multi-spectral sensors. Dual listed with GIST 5450. *Prerequisite:* Junior/Senior standing or approval from the instructor.

4790. Special Topics in Geospatial Information Science and Technology. 3. Advanced and specialized topics in GIS&T are addressed through guided student discussions of current literature and possible hands-on analyses. Dual listed with GIST 5790.

4870. Internship in Geospatial Information Science and Technology. 1-12 (Max. 12). Provide undergraduates with the opportunity to receive credit for practical experience in geospatial information science and technology. Internship opportunities must be approved by faculty and work supervisors. Satisfactory/Unsatisfactory only.

4950. Undergraduate Research in Geospatial Information Science and Technology. 1-6 (Max. 6). Undergraduate research in Geospatial Information Science and Technology (GIST) under the mentorship of UW faculty. Students are encouraged to present their research at professional meetings and to publish their work. GIST is multidisciplinary, so research problems span a wide range of topics.

5002. Geospatial Forum. 1. Students attend a geospatial sciences speaker series and contribute by presenting their proposed or completed research to faculty and other students in a professional manner analogous to presenting scientific research at professional meetings. Satisfactory/Unsatisfactory only.

5100. Foundations of Geospatial Information Science and Technology. 3. This online and on-campus graduate-level course provides an introduction to key concepts in geospatial information science and technology (GIST) including spatial data structures, coordinate systems, cartographic principles, spatial analysis, modeling, spatial cognition, and applications of GIS in a multidisciplinary context. Lecture and project-based (poster).

5111 [BOT 5111; GEOG 5111]. Introduction to Remote Sensing. 3. Combined online lecture and laboratory course introduces students to fundamental principles and techniques of remote sensing and the application of digital satellite and aerial imagery to the study of the earth's surface. Includes hands-on application of digital imaging processing techniques discussed in lecture.

5120. Integration of RS and GIS Data. 3. Many geospatial analyses involve combining remotely sensed (RS) data and products with other geospatial data stored in GIS. This 3-credit online course will overview the topics pertaining to the integration of RS data in raster format with GIS data stored in vector format. *Prerequisite:* graduate standing.

5130 [BOT 5130; RNEW 5130] Applied Remote Sensing for Agricultural Management. 3. Covers remote sensing concepts and applications related to croplands, rangelands, forests, and water. Students learn techniques for monitoring plant growth and vigor, monitoring rangelands, distinguishing invasive species, categorizing forest fires, and mapping water bodies. Students integrate remotely sensed data with other geospatial data. Dual listed with GIST 4130.

5150. Advanced Programming in Spatial Sciences. 3. Introduces GIS programming to motivated students with little or no prior experience in programming; students develop programming skills used to understand geospatial data and to model geographical changes. Programming skills for handling emerging data types are emphasized.

5200. Geographic Visualization. 3. This online lecture and lab course emphasizes advanced theory and hands-on practice for creating applying interactive, dynamic, and multidimensional graphical representations of geographic data. Students will be introduced to web programming to allow them to develop mobile and online visualization tools.

5211 [BOT 5211; GEOG 5211]. Advanced Remote Sensing. 3. On-campus and online course including lecture and digital image processing lab. Explores advanced remote sensing techniques including high spatial and spectral resolution data analysis, active remote sensing (radar and lidar), and advanced image classification. Other advanced topics may be discussed as needed. Dual listed with GIST 4211. *Prerequisite:* GIST 5111 or GIST 5130.

5410. UAS Sensors and Platforms. 1. This 1-credit online course taught over 8 weeks provides a detailed overview of the types of drones used for modern remote sensing and of the sensors that can be used with these different drone platforms to collect data, including RGB and multi-spectral cameras, thermal sensors, and lidar. Dual listed with GIST 4410.

5420. UAS Mission Planning. 1. This 1-credit online course provides a detailed overview of mission planning for UAS (drone) data collection. Students learn to evaluate mission requirements for a variety of UAS applications, to choose appropriate hardware to accomplish these requirements, and to use mission planning software to translate requirements into flight plans and data collection strategies. Dual listed with GIST 4420.

5430. UAS Regulations and Safety. 1. This 1-credit online course taught over 8 weeks provides students with a detailed overview of federal, state, and local regulations pertaining to UAS flights and data collection. Students also learn about how to operate drones safely in both personal and professional applications. Course content helps prepare students for FAA remote pilot certification. Dual listed with GIST 4430.

5440. UAS Ground School and Operations. 2. This field course provides students with the practical experience to operate UAS (drones) safely, legally, and effectively for collecting data to be used in a variety of applications. Students learn about pertinent safety and regulations, and then spend much of the course time flying drones in the field and collecting data. Dual listed with GIST 4440.

5450. UAS Photogrammetry and Imagery Process. 3. This 3-credit online course provides overviews of the photogrammetric principles related to imagery data acquired by unmanned aerial vehicles or drones, and the image processing techniques used for extracting information from the drone images. Students will gain experience in processing drone imagery collected with RGB cameras and multi-spectral sensors. Dual listed with GIST 4450. *Prerequisite:* graduate standing or approval from the instructor.

5790. Special Topics in Geospatial Information Science and Technology. 3. Advanced and specialized topics in GIS&T are addressed through guided student discussions of current literature and possible hands-on analyses. Dual listed with GIST 4790.

Information Literacy

Coe Library 304

Phone: (307)766-2070

The University Libraries offer research assistance and information literacy instruction to students and faculty. Librarians provide customized class orientations to information sources in various disciplines, as well as individual research consultations. Students needing research help may call, email, instant message, or visit any library branch.

The University of Wyoming addresses information competencies utilizing the [Framework for Information Literacy for Higher Education](#) as approved by the Association of College & Research Libraries (ACRL) and endorsed by the American Association for Higher Education. Librarians collaborate with teaching faculty in addressing these information competencies in course assignments or lectures. Information literacy is the ability to recognize and define the need for information, then locate, evaluate, and use that information effectively and ethically.

Information literacy learning outcomes are included in University Studies First Year Seminar (FYS) and communication courses.

The Libraries also offer credit courses to help students improve research skills and to meet the communications 2 requirement of the University Studies Program.

Learning Outcomes

We expect that students completing LBRY courses will become knowledgeable consumers of information through learning how to:

1. Recognize and define the need for information;
2. Efficiently locate information in the library or on the Internet;
3. Evaluate the quality of information;
4. Utilize information effectively, ethically, and legally.

Librarian

TAMSEN EMERSON HERT, B.A. Colorado State University 1979; M.L.S. Emporia State University 1984; M.A. 1988; Librarian, 2014, 1986.

DAVID D. KRUGER, B.S. South Dakota State University 1991; B.S.Ed. Minot State University 1994; M.A. Kansas State University 1996; M.L.S. University of Missouri at Columbia 1998; Librarian 2016, 1998.

Associate Librarians

KAIJSA J. CALKINS, B.A. University of Washington, Bothell 2001, M.L.I.S. University of Washington, Seattle 2004; Associate Librarian 2012, 2006.

LAWRENCE O. SCHMIDT, B.S. Montana State University 1987; M.S. 1995; M.L.S. Emporia State University 2002; Associate Librarian 2008, 2002.

YOLANDA HOOD, B.A. Elon College 1993; M.A. North Carolina Central 1996; M.L.S. North Carolina Central 2004; Ph.D. University of Missouri 2000; Associate Librarian 2019.

Assistant Librarian

KRISTINA A. CLEMENT, B.A. University of Kansas 2007; M.A. University of Notre Dame 2010; M.S.I.S. University of Tennessee 2018; Assistant Librarian 2018.

MICHELLE P. GREEN, B.S. Oral Roberts University 2008; M.A. 2011; M.L.I.S. University of Oklahoma 2016; Assistant Librarian 2018.

JUDITH E. PASEK, B.S. University of Michigan Ann Arbor 1977; M.S. University of Missouri 1980; Ph.D. University of Nebraska 1987; M.L.I.S. Wayne State University 2013; Assistant Librarian 2013.

SAMANTHA PETER, B.A. University of Wyoming 2016; M.S.I.S. University of Texas at Austin 2018; Assistant Librarian 2018.

Information Literacy (LBRY)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦Q]).

3010. Research from a Distance. 1. [L♦(none)] Students locate, evaluate, and synthesize free and fee-based information resources used in academic and work environments, with a special focus on accessing information remotely. Course assignments are customized to student's academic major and career goals. Students discuss ethical and legal issues surrounding information use. *Prerequisites:* ENGL 1010 or equivalent, junior standing.

3020. Research as Social Capital. 3. [L♦COM2] Prepares students to be critical thinkers and interdisciplinary researchers. Skills and habits of mind taught will enable students to locate, interact with, and present information in a service-learning framework and around the class theme of social capital, preparing them for university-level research and life after graduation. *Prerequisite:* Successful completion of a COM1 course or equivalent.

5600. Research Data Management. 3. A general approach to research data management for graduate students and researchers. Topics include: the case for data management, data management planning, meeting grant requirements, formatting and organizing, storing and transferring, legal and ethical issues, strategies for research teams, sharing data, and publishing, citing, and rights to research data. Cross listed with ES/GRAD 5600. *Prerequisite:* graduate standing.

Intercollegiate Athletics

Fieldhouse North

Thomas K. Burman, Director

Phone: (307)766-2292 FAX: (307)766-5414

Web site: wyomingathletics.com

BRYAN BERRYHILL, B.S. Colorado State University 2001; Head Track and Field/Cross Country Coach 2012.

CRAIG P. BOHL, B.S. University of Nebraska-Lincoln 1982; Head Football Coach 2014.

MATTHEW ERIC BOYER, O.D., B.S. Missouri Southern State College 1994; O.D. Oklahoma State University College of Osteopathic Medicine 1998; Sports Medicine Fellowship via College of Osteopathic Medicine Virginia Polytechnic Institute and State University 2010; Team Physician 2015.

THOMAS K. BURMAN, B.S. University of Wyoming 1988; M.B.A. Robert Morris University 1991; Director of Intercollegiate Athletics 2006.

MARK P. BRANCH, B.S. Oklahoma State University 1997; Masters in Athletic Administration 1999; Head Wrestling Coach 2008.

CHAD CALLIHAN, B.S. Radford University 2001; Head Women's Volleyball Coach 2013.

EDGAR DEAN CLOWER, B.A. Lamar University 2005; Head Women's Tennis Coach 2012.

DANIELLE COLE, A.A. S. Laramie County Community College 2013; Director of Spirit Programs and Community Outreach 2019.

MICHAEL COTTERMAN, B.S. Ohio University 1996; M.Ed. 1998; Director of Sports Performance - Olympic Sports 2015.

PETER CUADRADO, B.A. Texas Christian University 2000; M.L.A. Valparaiso University 2002; Head Women's Soccer Coach 2012.

DAVE DENNISTON, B.A. Auburn University 2002; Head Swimming and Diving Coach 2017.

TYSON DREW, B.A. University of Idaho 2004; M.S. 2007; Associate Athletic Director for Facilities and Event Management 2013.

ALLEN EDWARDS, B.A. University of Kentucky 1998; Head Men's Basketball Coach 2016.

TIMOTHY J. HARKINS, B.S. University of Kansas 1984; M.S. University of Tulsa 1992; Associate Athletic Director Media/Public Relations 2007, 1991.

BEN IANNACCHIONE, B.A. Boise State University 2008; M.S. Louisiana State University 2012; Director of Sports Performance - Football 2018.

FLOYD JOSEPH JENSEN, B.S. University of Wyoming 1998; Head Men's Golf Coach 2002.

CHINA JUDE, B.A. Alabama State University 1994; M.S. United States Sports Academy 1996; Ed.D. Northcentral University 2017; Senior Associate Athletics Director for Administration/Senior Woman Administrator (SWA) 2018.

SCOTT KNERR, B.S. Ball State University 1995; M.S. University of Utah 1995; Director of Sports Medicine 2019.

KEVIN McKINNEY, B.S. University of Wyoming 1971; Senior Associate Athletic Director for External Operations 1972.

GERALD MATTINSON, B.S. Weber State University 1981; M.S. United States Sports Academy 1988; Head Women's Basketball Coach 2019.

LONNIE PENNER, B.S. Kansas State University 2015; M.S. Liberty University 2017; Assistant Athletic Director for Marketing and Branding 2018.

BRAD POE, B.S. University of Idaho 2003; General Manager Wyoming Sport Properties 2013.

PETER PRIGGE, B.A. Marquette University 2009; J.D. 2012; Assistant Athletic Director for Compliance 2012.

ALBERT REISER, B.A. Lawrence University 2001; M.S. Indiana University 2006; M.S. 2008; Assistant Athletic Director/Academic Services 2014.

DEREK SHOOK, B.A. Appalachian State University 2012; M.S. University of Northern Colorado 2015; Associate Athletic Director for Development 2019.

BILL SPARKS, B.S. Marshall University 1979; M.S. University of Georgia 1993; Sr. Associate Athletic Director for Business Operations 1998.

JOSEY STENDER, B.S. University of Memphis 2001; M.S. 2004; Head Women's Golf Coach 2005.

TAYLOR STUEMKY, B.S. University of Northern Colorado 2010; M.S. Kansas State University 2013; Assistant Athletic Director for Student-Athlete Success 2018.

JOE VERSCHUEREN, B.A. Hope College 2004; M.S. Valparaiso University 2006; Associate Athletic Director for Ticketing and Sales 2017.

RANDY WELNIAK, B.S. University of Wyoming 1988; M.B.A. 1989; Senior Associate Athletic Director for Development and Revenue Enhancement 2011.

MATTHEW J. WHISENANT, B.S. East Tennessee State University 1996; M.A. 1999; Deputy Director of Athletics 2002.

PHILLIP WILLE, B.A. Valparaiso University 2002; J.D. 2005; Senior Associate Athletic Director for Internal Operations 2012.

Mission Statement

The University of Wyoming Department of Intercollegiate Athletics is committed to the development of tomorrow's leaders by creating an environment that promotes personal growth, academic and athletic excellence in a progressive, inclusive, and transparent manner. The Department of Intercollegiate Athletics will support the overall University of Wyoming mission, provide an outstanding fan experience, encourage community engagement, and serve as a source of pride for alumni, supporters, and the state of Wyoming.

Guiding Principles

- **Dedication to Student-Athletes:** We will promote the well-being of student-athletes and provide opportunities for academic, athletic, and personal success. We will foster academic excellence, graduate student-athletes, support their development as citizens, and prepare them to be leaders.
- **Integrity:** We will demonstrate integrity in all areas. We are dedicated to financial stability, rules compliance, diversity, and personal accountability.
- **Respect:** We will celebrate a climate of mutual respect, inclusiveness, loyalty, and sportsmanship by recognizing contributions to our teams, our department, and the university.
- **Competitive Success:** We will endeavor to be the very best when representing the University of Wyoming and our state. We are committed to providing the resources and personnel for our teams to achieve success.
- **Tradition:** The legacy of the University of Wyoming athletics is proud and strong. We will honor our outstanding tradition.
- **Excellence:** We believe in a spirit of comprehensive excellence. We will strive for excellence in all we do.

General Information

The University of Wyoming Department of Intercollegiate Athletics (DIA) consists of 17 teams competing at the NCAA Division I level: men's and women's basketball, men's and women's cross country, football (FBS), men's and women's golf, women's soccer, men's and women's swimming, women's tennis, women's volleyball, men's and women's indoor track, men's and women's outdoor track and wrestling. All sports are fully-funded up to the NCAA maximum for grant-in-aids (i.e., scholarships).

The University of Wyoming competes in the Mountain West Conference (MWC), the Western Athletic Conference (WAC), and the Big 12 Conference. In addition to the University of Wyoming the MWC consists of the U.S. Air Force Academy, Boise State University, Colorado State University, University of Nevada-Las Vegas, University of New Mexico, and San Diego State University.

The DIA is managed by the Director of Intercollegiate Athletics who reports directly to the President of the University. The Director of Intercollegiate Athletics ensures the department operates in a manner consistent with the rules and regulations of the University, the MWC and the NCAA.

*For additional information please visit the University's official athletic website at: www.gowyo.com

National Outdoor Leadership School

Administered by the Haub School of Environment and Natural Resources

Bim Kendall House

Haub School Advising Center

Phone: (307)766-5080 FAX: (307)766-5099; Web site: www.uwyo.edu/haub

The University of Wyoming (UW) and National Outdoor Leadership School (NOLS) Articulation Agreement provides the opportunity for UW students to receive UW academic credit for NOLS courses.

When NOLS students step into the world's wild places, they bring not only their backpacks, but also more than 40 years of experience in expeditioning. NOLS founder Paul Petzoldt's idea was simple: take people into the wilderness for an extended period of time, teach them the right things, feed them well and when they walk out of the mountains, they will be skilled leaders. The core of his idea was the extended expedition, one of sufficient length that a person could learn and practice the skills over and over again. That is the backbone of every NOLS course and today the school is widely recognized as the world's leader in the extended expedition, from two weeks to twelve.

This articulation agreement covers domestic and international NOLS courses. This agreement also covers some individual short-term courses (14 days or less; including mountaineering, rock climbing, sailing, kayaking, skiing, snowboarding, and backpacking) and the Wilderness First Responder (WFR) course.

Application/Eligibility

Current UW students, or students who have been fully or conditionally admitted to UW may receive articulated NOLS credit. Students who have already taken a NOLS course cannot receive credit retroactively (i.e. if a student embarked on a NOLS course and requested to get credit after the course was completed).

Credit and Credit Transfer

UW credit hours will be awarded in the approved courses, which require prior approval. Upon completion of the NOLS courses, provided a grade equivalent to a UW grade of C or better was obtained at NOLS. These UW course grades will be included in your UW GPA. Students who withdraw or are expelled from a NOLS course may receive an incomplete or an F for all enrolled UW credit.

Students should be aware that for internship credits to be awarded, additional academic work requirements determined by the intern-

ship course will need to be met. Those additional requirements vary between academic programs and amount of credit desired, but may include a satisfactory evaluation from NOLS, a weekly journal, a substantial written report, and an oral presentation. Internship requirements are established prior to your participating in the NOLS course.

Academic Advising

Prior to participating in a NOLS course for UW credit, students must make an appointment with the Haub School by emailing haub.school@uwyo.edu or calling (307) 766-5080. If your academic program is outside of the Haub School, students should also meet with their assigned academic advisor to determine if these courses will count towards their major. The Haub School will approve the student's schedule, provide the appropriate course numbers, and liaise with the NOLS Registrar.

Financial Arrangements

Each UW student will pay to NOLS:

- The NOLS tuition and related fees (any changes to be advised in writing by NOLS at least three months in advance of the change coming into effect), related fees would include equipment deposit;
- Complete medical and evacuation health insurance;
- Other fees (e.g. tuition protection program, local transportation, and gear purchases), air transportation and additional living expenses will be paid directly by the student to the provider of the service.

Each UW student will pay to UW:

- The published per credit registration fees to register UW credits earned at NOLS

Financial Aid

Students enrolled in the NOLS program may apply their financial aid to the cost of the program if they are enrolled as a full-time degree seeking student at the University of Wyoming. To do so, please work with the UW Scholarships and Student Financial Aid Office, Christy Nordmann, Financial Aid Specialist, (307) 766-3674.

Rules, Law, and Regulations

UW students studying at NOLS will be bound by all rules, regulations and by-laws in operation at NOLS. In addition, since UW students remain enrolled as degree candidates at UW, they must also adhere to UW standards of conduct, rules and regulations. UW and NOLS both abide by the Federal Right to Privacy Act (FERPA).

Steps to Follow

1. Determine the NOLS course that best fits your needs/interests and/or goals online at: www.nols.edu/courses
2. Make an appointment with an advisor from the Haub School to determine the UW academic credit that best suits your degree program by e-mailing haub.school@uwyo.edu or by calling (307) 766-5080.
3. Meet with your academic advisor (if your academic program is not in the Haub School).
4. Apply and be admitted into NOLS.
5. Prior to leaving for your NOLS course, enroll in the credit offered for the course.
6. Secure your financial aid (if any) with the UW Student Financial Aid Office, Christy Nordmann, Financial Aid Specialist, (307) 766-3674.
7. Attend and successfully complete the course (grade C or better).
8. Grades will be posted the semester of completion of your course.

UW Credit Options

UW recognizes the following credit options for taking a NOLS course:

	Hrs.
Short Courses (<14 days).....	2
**ENR 4960 (2 credits)	
Quarter length courses (14-65 days)	≤9
**ENR 2800 (3 credits)	
**ENR 4960 (3 credits)	
**ENR 4890 (3 credits)	
**ENR 4970 (3 credits)	

Semester & year-long
courses* (>65 days)12-24
**ENR 2800 (3 credits)
**ENR 4960 (6 credits)
**ENR 4970 (3-6 credits)
**ENR 4890 (3 credits)
***ENR 3900 (2 credits)
*For year-long courses, independent study
credits are also available.
**There are additional course requirements
for 4000-level NOLS credit. Syllabi and course
expectations will be shared upon enrollment.
***For courses with a Wilderness First Re-
sponder component only.

School of Energy Resources

301 Energy Innovation Center

Phone: (307)766-6879 FAX (307)766-6701

Holly Krutka, Executive Director

Web site: www.uwyo.edu/ser

The School of Energy Resources facilitates interdisciplinary academic and research programs in engineering and science, economics, and environment and natural resources policy to address critical energy-related issues faced by our society.

Our mission is to leverage and add to the already significant energy-related talent and resources in the University of Wyoming colleges to develop human resources, know-how, and technical solutions to ensure a secure and sustainable energy future for the state, region, and nation.

Professors:

TIMOTHY J. CONSIDINE, B.A. Loyola University 1975; M.S. Purdue University 1977; Ph.D. Cornell University 1981; SER Professor of Energy Economics 2008.

CRAIG C. DOUGLAS, A.B. Chicago University 1977; M.S. Yale University 1978; M.Phil. 1980; Ph.D. 1982; SER Professor of Mathematics 2008.

MAOHONG FAN, B.S. Wuhan University of Science and Engineering, 1984; M.S. Beijing University of Science and Technology, 1992; Ph.D. Chinese Academy of Sciences, 1997; Ph.D. Iowa State University, 2000; Ph.D. Osaka University 2003; SER Professor of Chemical Engineering 2015, 2008.

JOHN P. KASZUBA, B.S. Beloit College, 1982; M.S. Virginia Polytechnic Institute & State University 1986; Ph.D. Colorado School of Mines, 1997; SER Professor Geology & Geophysics, 2019, 2008.

SUBHASHIS MALLICK, B.Sc. Indian Institute of Technology 1976; M.Sc. 1978; Ph.D. University of Hawaii 1987; SER Professor of Geology & Geophysics 2008.

BRUCE A. PARKINSON, B.S. Iowa State University 1972; Ph.D. California Institute of Technology 1977; SER Professor of Chemistry 2008.

MOHAMMAD PIRI, B.Sc. Azad University, Arak 1995; M.Sc. Azad University, Tehran 1998; M.Sc. Imperial College, London 2000; Ph.D. 2004; SER Professor of Petroleum Engineering 2011, 2005.

Associate Professors:

PO CHEN, B.S. Beijing University 2000; Ph.D. University of Southern California 2005; SER Associate Professor of Geology and Geophysics 2014, 2008.

DARIO GRANA, B.S. University of Pavia, 2003; M.S. 2005; M.S. University of Milano Bicocca, 2006; Ph.D. Stanford University, 2013; SER Associate Professor of Geology and Geophysics 2019, 2013.

TARA RIGHETTI, B.A. University of Colorado Boulder 2005; J.D. 2007; SER Associate Professor of Law 2017, 2014.

Academic Professional:

KRISTOPHER KOSKI, B.S. Colorado School of Mines, 2005; J.D. University of Wyoming, 2008; Associate Lecturer 2017.

Energy Resource Management and Development Bachelor of Science

One of the most important challenges of the 21st century will be to develop and manage energy resources in a sustainable manner. Projections show energy consumption worldwide will increase nearly 50 percent by 2035. And half of the leadership in the energy industries is expected to retire in the next five to ten years.

The future of energy will be characterized by increasing knowledge, relentless change, and technological innovation. As global energy industry increases in complexity, demand will dramatically grow for professionals with a multidisciplinary, entrepreneurial skill set. Future leaders must understand complex technology within the context of business, legal, social and public policy in order to create comprehensive and sustainable solutions.

The Energy Resource Management and Development (ERM&D) B.S. program is designed to fill this need through a combination of rigorous courses, real-world internships, and undergraduate research experiences. The curriculum balances depth of learning with breadth of understanding to train graduates for sustained competitive success in the energy workforce at the frontiers of knowledge and for self-directed, life-long learning. Students learn to focus on continuous improvement, constant assessment and the importance of a sense of urgency and consideration of profit motive in the energy industry

Our program emphasizes career planning and provides constant one-on-one guidance and assistance to ensure optimal workforce placement. Students are strongly encouraged to complete an industry internship (minimum GPA requirement is typically 3.000). Opportunities are also available for undergraduate re-

search, a study abroad experience or a summer field trip. Multiple events during the year connect students to energy industry professionals.

Student Learning Outcomes

The Energy Resource Management and Development Program is designed to meet the demands of the energy workforce and enhance social literacy related to complex energy issues. Competency-based learning that integrates problem solving, critical analysis of uncertain and complex issues, and constant improvement in performance are overarching components of our undergraduate program.

1. Gain appreciation and understanding of fundamental concepts of energy systems.
2. Acquire a foundational understanding of business fundamentals relative to energy companies, including organizational structure, management, entrepreneurship and international commerce.
3. Understand the legal, cultural, scientific, and technological dimensions of energy resources.
4. Demonstrate the business and professional skills necessary to engage in meaningful conversation and dialogue across written, oral and digital platforms.
5. Exhibit critical thinking and problem solving related to earth, energy, and environmental problems.
6. Appreciate the demands and responsibilities of engaged citizenship and decision making.
7. Prepare for a lifetime of ethical service to the profession.
8. Apply concepts and skills to real world problems to gain practical understanding and experience.

Professional Land Management Concentration

Develop a complex and nuanced understanding of the U.S. legal system relative to energy development, including administrative law, legislation and regulation, and the common law of property and contracts.

Required Academic Performance

The student must earn a letter grade of C or better in each course and a cumulative GPA of 2.000 or better.

Concentrations

The Energy Resource Management and Development program offers two concentrations and students must declare at least one concentration. They are professional land management and energy land and water management. The suggested course sequences are shown below.

Energy Land and Water Management Concentration**Suggested Course Sequence**

Freshman Year: Fall	Hours
First-Year Seminar (FYS).....	3
ENGL 1010 (C1).....	3
ERS 1000	3
ECON 1300 (H).....	3
MATH 2200 (Q).....	4
Total Hours	16

Freshman Year: Spring	Hours
US & Wyoming Constitution (V).....	3
Communication 2 Elective (C2) ¹	3
ECON 1020 (H).....	3
LIFE 1010 (PN).....	4
General Elective ²	3
Total Hours	16

Sophomore Year: Fall	Hours
LIFE 2023	4
REWM 2000	3
Chemistry Elective ³	4
ACCT 2010	3
Total Hours	14

Sophomore Year: Spring	Hours
SOIL 2010	4
LIFE 3400	3
GIST 1100	3
STAT 2050	4
Total Hours	14

Junior Year: Fall	Hours
REWM 2400	4
REWM 3100	3
GIST 2100	4
ERS 4120	3
Total Hours	14

Junior Year: Spring	Hours
Economics Elective ⁴	3
DSCI 4260	3
FIN 3250	3
ERS 3010	3
General Elective ²	3
Total Hours	15

Senior Year: Fall	Hours
AGEC/ENR 4550.....	3
REWM 4200	3
Data Analysis Elective ⁵	3
ENR 4750	3
General Elective ²	3
Total Hours	15

Senior Year: Spring	Hours
Communication 3 Elective ⁶	3
AGEC/ENR 4450.....	3
REWM 4710	3
REWM 4580	3
Technical Elective ⁷	3
General Elective ²	1
Total Hours	16
Total Credit Hours	120

¹Select one: COJO 2010, ECON 2400, ENGL 2005, ENR 2000, ENR 3300, ERS 2500, HP 2020, UWYO 1600

²Select four: ERS 1650, 4960, 4965, 4970, 4975, 4985, 4990; ENR 1200, 1300, 3450, 3700, 3900, 4040, 4600, 4890, 4960, 4970; GEOG 3450, 3480, 3550, 4040, 4111, 4210, 4211; LIFE 3410; GIST 2160; MGT 3410, 3420; MKT 4600; PLNT 1150; PHIL 2420; POLS 4051, 4052; REWM 4285, 4330, 4530, 4700, 4850; SOIL 4100, 4105, 4120, 4130, 4140, 4150, 4160

³Select one: CHEM 1000 Fall only, CHEM 1020 Fall, Spring or Summer

⁴Select one: ECON/ERS 3400 (preferred); AGECE 3750, 4600, 4700, 4720; ECON 4420

⁵Select one: ES 1060; ENR 4525; GEOL 4525; STAT 3050

⁶Select one: ENR concurrent majors take ENR 4900; all other students select from ENGL 4010, 4025, 4075

⁷Select one: Any 3000/4000 ENR, GEOG, SOIL, REWM, or RNEW class except ENR 4750

Professional Land Management Concentration**Suggested Course Sequence**

Freshman Year: Fall	Hours
First-Year Seminar (FYS).....	3
ECON 1300 (H).....	3
ENR 1000 (PN).....	3
MATH 2350 (Q).....	4
ENGL 1010 (C1).....	3
Total Hours	16

Freshman Year: Spring	Hours
ECON 1020 (H).....	3
US & Wyoming Constitution (V).....	3
Communication 2 Elective (C2) ¹	3
MATH 2355	4
MGT 1040	3
Total Hours	16

Sophomore Year: Fall	Hours
ACCT 2010	3
GEOL 1100 (PN).....	4
Ethics Elective ²	3
MGT 3210	3
General Elective ³	3
Total Hours	16

Sophomore Year: Spring	Hours
ACCT 2020	3
ERS 2010	2
GIST 1100	3

STAT 2050	4
General Elective ³	3
Total Hours	15

Junior Year: Fall	Hours
FIN 3250	3
GIST 2100	4
General Elective ³	6
Total Hours	13

Junior Year: Spring	Hours
ERS 4010	3
ERS 4110	3
DSCI 4260	3
Economics Elective ⁴	3
Data Analysis Elective ⁵	3
Total Hours	15

Senior Year: Fall	Hours
ENR 4750	3
ERS 4100	3
ERS 4120	3
ERS 4130	3
AGEC 4550	3
Total Hours	15

Senior Year: Spring	Hours
ERS 4105	3
ERS 4135 (C3).....	3
ERS 4985	2
AGEC 4450	3
ERS 4990	3
Total Hours	14
Total Credit Hours	120

¹Select one: COJO 2010; ECON 2400; ENGL 2005; ENR 2000; ENR 3300; ERS 2500; HP 2020; UWYO 1600

²Select one: ERS 2000; MGT 3110; PHIL/ENR 2330

³Select four: ERS 1650, 4960, 4965, 4970, 4975, 4990; ECON 1010; ENR 1200, 1300, 3450, 3700, 3900, 4040, 4600, 4890, 4960, 4970; FIN 3310, 3520; GEOG 3480, 3550, 4040, 4111, 4210, 4211; GEOL 1600, 1650, 3600, 3605; GIST 2160; LS 2100; MGT 3410, 3420, 4340, 4350, 4360; MKT 3210, 4600; PHIL 2420, POLS 4051, 4052

⁴Select one: ECON/ERS 3400 (preferred); AGECE 3750, 4600, 4700, 4720; ECON 4420

⁵Select one: ES 1060; STAT 3050

Concurrent Major in Environment and Natural Resources

A student majoring in Energy Resource Management and Development (ERM&D) program may earn a double major by completing the courses required for the Environment and Natural Resources (ENR) program in addition to the ERM&D requirements. Visit www.uwyo.edu/haub for the ENR requirements.

Minors

Students looking to create a focus for their coursework can add minors to the ERM&D program. Courses applying towards the minor must be completed with a grade of “C” or better. Visit the college or department web sites for a description of the minors.

College of Agriculture and Natural Resources

Natural Resource Economics
Rangeland Ecology and
Watershed Management
Reclamation and Restoration Ecology
Soil Science

College of Arts and Sciences

Foreign Language
International Studies
Professional Writing
Public Relations

College of Business

Accounting
Banking and Financial Services
Decision Science
Economics
Entrepreneurship
Finance
Information Management
International Business
Management
Marketing
Marketing Communication
Sustainable Business Practices

Haub School

Environment and Natural Resources
Outdoor Leadership
Sustainability

School of Energy Resources (ERS)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦PN]).

1000. Energy and Society. 3. [O♦PN] Introduces humans’ past, present, and future sources of energy and their advantages and limitations. Discusses society’s current, non-sustainable pattern of energy use from a supply and environmental perspective. Investigates the technical, environmental, political, and societal problems associated with the eventual conversion to renewable energy resources. Cross listed with ENR 1000.

1101. First-Year Seminar. 3. [(none)♦FYS]
1300. Oil: Business, Culture, and Power. 3. [CS,G♦H] A multi-disciplinary approach to understanding how oil affects the international relations and commerce. The

relationships between oil technology, social and political institutions, the unique cultures in oil-producing regions will be investigated in case studies. Cross listed with ECON 1300.
1650. The Water-Energy-Climate Nexus. 3. [(none)♦PN] Among the grand challenges facing humanity, arguably the most significant are water, energy, and climate. These issues are, however not isolated but intimately connected, i.e. water-energy-climate (WEC) nexus. Using critical thinking and problem-solving skills, the significance of the WEC nexus to humanity will be explored from STEM and non-STEM perspectives. Cross listed with GEOL 1650.

2000. Ethics & Leadership. 3. This course provides an examination of the principles and practice of (1) personal, group and organizational leadership; and (2) ethics and morals as they relate to conduct in the leadership context. *Prerequisite:* USP WA/COM1.

2010. Introduction to Land Management. 2. Provides an introduction to land management in the petroleum industry. Covers the knowledge and skills needed by land professionals including survey systems, land descriptions, mineral ownership, title examination, leases, surface use agreements, and contracts frequently used in the industry. *Prerequisites:* WA/COM1 and QA/Q.

2500. Communication Across Topics in Energy. 3. [(none)♦COM2] Students will develop interdisciplinary communication skills from an Energy Resources perspective. Communication will include oral, digital, and written forms. Audiences for communication projects will often be live, and from a variety of backgrounds. *Prerequisites:* WA/COM1.

3010. Air Quality Management. 3. Provides an overview of air quality management approaches. In this course an interdisciplinary approach is adopted that includes diverse information from physical, natural and socioeconomic systems. With consideration of global and local issues this class focuses upon the energy sector. *Prerequisites:* CHEM 1000 or CHEM 1020 and WA or COM1.

3400. Energy Markets & Policy. 3. This course provides an economic analysis of recent developments in energy markets and policies. Cross listed with ECON 3400. *Prerequisite:* ECON 1000, ECON 1010, ECON 1020, ECON 1200, ECON 1300, ECON 1400, or ERS 1300.

4010. Petroleum Exploration and Production. 3. The purpose of this course is to provide students with information and skills necessary to understand the oil and gas modeling process from exploration to production.

Topics will include geophysical exploration, seismic acquisition, geophysical modeling, reservoir characterization, reservoir production, well planning and decision making. Cross listed with GEOL 4010. *Prerequisites:* GEOL 1100; MATH 2200 or MATH 2350.

4050. Solar Energy Conversion. 3. Provides an overview of the science behind current and future solar thermal and photovoltaic technologies. Environmental aspects, legal issues and cost associated with solar energy will also be included. Cross listed with CHEM 4050. *Prerequisites:* CHEM 1030 or CHEM 1060 and PHYS 1210 or PHYS 1310 and MATH 2200. (Offered spring semester)

4100. Property I. 3. Property I addresses the nature of property ownership and the rights associated with property as well as the acquisition and transfer of ownership rights in property and the sharing of ownership rights over time, including estates, future interest, and concurrent estates. *Prerequisites:* ERS 2500 or WB/COM2.

4105. Property II. 3. Property II covers rights inherent to the ownership of property and public limitations on those rights. *Prerequisite:* ERS 4100.

4110. Law of Contracts. 3. The Law of Contracts addresses the formation of a contract and the meaning of agreements and the justification of non-performance and breach. *Prerequisites:* MGT 1040 and WB/COM2.

4120. Federal Public Land Law. 3. Federal Public Land Law addresses public interest as the central principal of public land natural resource management. The course examines the acquisition and disposition of the public domain, federal and state regulatory authority, and the management of hard rock, energy, and range resources. *Prerequisite:* ENR 4750 or concurrent enrollment or MGT 1040 and WB/COM2 or REWM 3200 or GEOL 3005.

4130. Oil and Gas Law. 3. Focuses on the basis legal rules and principles governing the ownership and development of oil and gas, derived from a combination of property, contract, administrative, tort, and constitutional law. *Prerequisites:* ERS 2010 or PETE 3200 and WB/COM2.

4135. Advanced Oil and Gas Law. 3. [(none)♦COM3] Covers oil and gas financing arrangements including farmout, JOA, and production sharing agreements, conservation and oil/gas commission practice, drilling/service agreements, downstream marketing and purchase agreements, purchase/sale of petroleum properties, and oil/gas development on federal/indian lands. Includes basic

introduction to taxation of mineral interests including depreciation, intangible drilling costs, and depletion. *Prerequisite:* ERS 4130.

4960. Energy Field Studies. 1 (Max. 2). Various facets of energy resource management and development are covered by visits to oil and gas wells, coal mines, power plants, wind farms, and other energy production and research sites. A trip is normally planned for 5 to 6 days. *Prerequisites:* WB; ERS/ENR 1000 or ECON/ERS 1300.

ERS 4965. Undergraduate Research. 1-3 (Max. 6). Research activities on an energy-related project of limited scope or as part of a laboratory project of greater scope under the advisement of a faculty member. Students will work 4 to 10 hours per week. Students will submit a written report summarizing the results of the research. *Prerequisite:* WA; SP or SE.

4970. Internship. 1-3 (Max. 3). A formalized internship designed to provide students with relevant practical experience in the energy sector allowing synthesis and application of principles in energy science to energy asset management. *Prerequisites:* ERS/ENR 1000 or ECON/ERS 1300; QB; SP or SE.

4975. Global Experience in Energy. 2-4 (Max. 4). A 1-3 month integrative energy experience in China or Australia. Students will participate, in collaboration with partnering energy professionals, in outcomes focused education and research programs designed to address globally relevant challenges. Students will gain a global perspective within the cultural context of the partner institution. *Prerequisites:* ERS/ENR 1000 or ECON/ERS 1300; QB; SP or SE.

4985. Seminar. 1-3 (Max. 3). Energy professionals, including accredited professional landmen, practicing attorneys, and other energy professionals will present a colloquium styled course to bridge conceptual content with realistic workforce focused applications. *Prerequisites:* ERS/ENR 1000 or ECON/ERS 1300 and WA and QB.

4990. Topics in Energy Resource Development and Management. 1-6 (Max. 6). Special topics in contemporary energy development and management will be offered in response to changing industry and academic demands. The specific subject matter is based on faculty requirements and workforce innovation. *Prerequisites:* QA and one of the following: SB, SP or SE course.

The Honors College provides academically ambitious students with a series of curricular and co-curricular opportunities. Through these opportunities, students gain the breadth of knowledge needed by citizens, professionals, and family members to be effective in a lifetime of stimulating and enriching pursuits. Honors students learn to write cogently for a variety of audiences in their academic disciplines and beyond. They learn to locate and use reliable information and trustworthy opinion. Through appropriate coursework, they learn how to become engaged citizens and to understand the ethnic and cultural diversity of America and the world. They learn the purposes and values of the arts, humanities, sciences and social sciences. The Capstone Project is a sustained research or creative activity through which students demonstrate what they have learned: to formulate a project independently, to develop the intellectual and creative means to complete it, and to write and speak effectively about their work. The Capstone Project is frequently used as evidence of critical thinking in graduate and career applications.

Learning Outcomes

Students graduating from the Honors College will be able to: (1) engage in problem-solving, research, and creative pursuits that utilize an interdisciplinary approach (2) articulate the value of international and diversity-focused perspectives (3) develop their own styles of leadership and service and identify meaningful opportunities for engagement in these areas and (4) create intentional pathways through career development, including utilizing internship opportunities.

Admission

Students are invited to join the college prior to their first year. First year applicants must meet at least one of the following criteria: a composite ACT score of 27, OR a combined verbal and quantitative SAT score of 1270, OR a high school GPA of 3.700.

Students who transfer to UW or join Honors as continuing UW students or as a first year spring admit to UW and who have not completed a COM1 will begin their Honors curriculum in the fall semester with Colloquium I.

The college also welcomes transfer students and current UW students with at least four semesters remaining prior to graduation. To join, these students need an overall college GPA of 3.250.

Interested high school seniors and transfer students are encouraged to come by the Honors College or to write to the Dean, The Honors College, Dept. 3413, 1000 University Ave, Laramie, WY 82071. The email address is honors@uwyo.edu.

Scholarships

The Honors College supports UW in financial aid packages for students. In keeping with the vision of Honors to facilitate an international experience, Honors provides scholarships to assist with study abroad. To be scholarship eligible, students must have a minimum cumulative 3.250 GPA. Fellowships for supporting research or creative projects for the senior thesis may also be available.

Program Requirements

To earn a minor in Honors, Honors students must complete a total of five courses in Honors and a Capstone Project. They must also graduate with a 3.250 UW GPA. Students who transfer to UW or join Honors as continuing UW students may have some of their required Honors courses waived.

The Honors curriculum immerses students in multi-disciplinary inquiry. We begin with the First Year Colloquium, a two-semester course sequence that takes a complex topic – for example, *Dreams and Reality* – and explores it with readings based in the humanities, arts, sciences, and social sciences. We enrich the course with visits to the theatre, the Art Museum, and other UW resources, building community while learning about UW. Thereafter, students enroll in three additional courses: an Honors Non-Western Perspectives course and six hours of upper division coursework in Honors that emphasize interdisciplinarity. On average, students take one honors course per year.

The Honors Experience concludes with a Capstone Project, either a paper or project, done under faculty mentorship and presented publicly. This requirement ensures that students gain creative or research experience in an area of their interest. These projects often lead to graduate studies or a special career path.

Honors College Minor Curriculum

Required Courses	Hrs.
First Year Honors Colloquium I	3
HP 1020 (COM1)	
Colloquium II	3
HP 2020 (COM2)	
Honors Non-Western Perspectives¹	3
Upper Division Interdisciplinary	
Honors Electives¹	6
Any two upper division Honors courses excluding HP 4976	

¹Must be three unique courses to meet these requirements; a single course cannot count as both the Non-Western and an Upper Division Interdisciplinary Honors Elective.

Capstone Project (creative or research-based)

Students are not required to register for a specific course to complete the Capstone Project. There is no specific Capstone Project course; students complete the project independently in coordination with a faculty mentor.

- Honors does offer an optional independent study course if desired. Up to 6 hours of credit in the optional HP 4976: Independent Study are allowed.
- HP 4976 does not meet any specific Honors coursework requirements or USP requirements.
- Students may be pursuing a major that requires a senior or capstone project, and a major specific project may also meet the requirement for the Honors College Capstone Project. Please contact the Capstone Project Coordinator for details.

Additional Requirements

Students must also graduate with a 3.250 cumulative UW GPA.

Successful completion of the program is indicated on transcripts and diplomas, and seniors are recognized at graduation ceremonies.

Preference for enrollment in Honors courses is given to Honors College students, although non-Honors students with a 3.250 GPA are encouraged to enroll if space is available. Requests for admittance must be approved by the Honors College Office.

Advising

The Honors College offers supplemental advising that supports the work that students do with their primary major advisors. Honors Advising instructs students on Honors cur-

riculum requirements and helps students select their Honors courses. Students work with their primary major advisor to plan their courses each semester and to monitor progress towards degree completion. Students cannot register for Fall or Spring classes without meeting with their primary major advisor.

Honors College (HP)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦♦Q]).

1000. Intellectual Communities. 1. [I♦♦(none)] Queries the nature, functions, and benefits of intellectual communities from the ancient world to present. *Prerequisite:* Concurrent enrollment in HP 1020, HP 1151 or HP 1161.

1020. Freshman Honors Colloquium I. 3. [WA,L♦♦COM1] Composition course. Provides innovative writing instruction to honors students while introducing works and history of Western culture. Particularly emphasizes analytical reading and writing. *Prerequisite:* participation in UW Honors College. (Offered fall semester)

1101. First-Year Seminar. 3. [(none)♦♦FYS] 1151 [1150]. Freshman Honors Colloquium I. 3. [CH,L♦♦H] Studies significant works in the history of Western civilization to the Renaissance, both in their historical context and in relation to one another. For entering freshmen who have already fulfilled the WA or COM1 requirement. *Prerequisite:* participation in the UW Honors College. (Offered fall semester)

1200. People and Policy. 3. [V♦♦(none)] This course focuses on reading American and Wyoming political documents in an historical and interdisciplinary context, and extends the discussion into the present day, situating what we know about America as a political nation, Wyoming as a political state, and ourselves as people and citizens within both our founding political documents and the history of interpretations and extensions of those documents. *Prerequisite:* participation in UW Honors College.

2020 [1160,1161]. Colloquium II. 3. [WB,O♦♦COM2] Continues study of significant works in Western and Eastern literary, scientific and philosophical traditions begun in Colloquium I. Assignments focus on using critical discourse, historical research, and textual analysis to produce effective written compositions and oral presentations. *Prerequisite:* WA.

2151, 2152, 2153 [2150]. Honors Non-Western Perspectives. 3 (2151/Max. 6, 2152/Max. 6, 2153/Max. 6). Explores issues central to human experience from perspectives of non-western peoples. Topics vary from year to year. Required of UW Honors College students. *Prerequisites:* sophomore standing and participation in UW Honors College.

3151, 3152, 3153 [3150]. Modes of Understanding. 3 (3151/Max. 6, 3152/Max. 6, 3153/Max. 6). Introduces study of nature and grounds of knowledge, its limits and validity. Examines epistemological basis of selected areas of academic thought. Topics vary from year to year. Required of UW Honors Program students. *Prerequisites:* junior standing and participation in UW Honors Program.

4151, 4152, 4153 [4150]. Senior Honor Seminar. 3 (4151/Max. 6, 4152/Max. 6, 4153/Max. 6). Asks students to confront a complex social issue, examine it from several perspectives and take a stance on some aspect of the issue. Topics vary from year to year. Required of UW Honors Program students. *Prerequisites:* senior standing and participation in UW Honors Program.

4154. Senior Honors Seminar. 3. Asks students to confront a complex social issue, examine it from several perspectives and take a stance on some aspect of the issue. Topics vary from year to year. Required of UW Honors Program students. *Prerequisites:* senior standing and participation in the UW Honors Program.

4975. Independent Study. 1-3 (Max. 6). [WC♦♦(none)] Supervised study and investigation in topics related to students' research.

4976. Independent Study. 1-3 (Max. 6). Supervised study and investigation in topics related to student's research.

4990. Topics:____. 1-3 (Max. 6). Accommodates a senior seminar series or a course offering by visiting faculty whose subject matter is not included in other course offerings. (Offered based on sufficient demand and resources)

UWYO courses are designed to help students acculturate to college life and coursework and learn key academic skills. Course content is combined with training in critical reading, academic writing, research, formal presentation, and many other emphases. UWYO courses have low student-teacher ratios in an effort to help students experience richer connection with the instructor and students in the course. Most UWYO courses imbed intellectual self-awareness within the course goals. Several UWYO courses are part of UW learning communities and provide additional opportunities for students to engage with and work together in their cohort.

UWYO (UWYO)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦Q]).

1000. IC for Undeclared Students. 2. [I,L♦(none)] An introduction to the intellectual community of the University of Wyoming, information literacy, and higher education in general, and is specifically intended for students who have not yet made a decision about their college major. Students will begin to develop the critical thinking skills that are necessary in higher education and to explore the primary intellectual activities of various disciplines. Cross listed with A&S 1000.

1050. Student-Athlete Academic Success. 1. Introduces first-year student athletes to U.W. Includes an introduction to campus resources, time management and study skill techniques, exploration of learning styles, diversity topics, and strategic goal setting to be a successful student and athlete. S/U only.

1060. College Athletics and Society. 3. This course will examine the unique relationship between intercollegiate athletics and higher education, as well as intersections that occur with gender, politics, and race.

1101. First-Year Seminar. 3. [(none)♦FYS]

1105. Academic Success Skills. 1-2 (Max. 2). Designed to provide students the necessary skill set to succeed at the University and beyond. Skills covered include time management, learning styles, note taking, self-motivation and more. The 2-credit UWYO 1105 option is graded A-F; the 1 credit UWYO 1105 option is graded Satisfactory/Unsatisfactory.

1205. Student Success Services First Year Seminar. 1. [I,L♦(none)] First year students enrolled in the Student Success Services project will learn how to utilize campus resources and understand her/his interests and values and develop the ability to establish and work toward short-term and long-term career goals, apply personalized study strategies and interpret university, college, and departmental rules and regulations. *Prerequisite:* Freshman only (exclusively for students who are part of the SSS project).

1450. Critical Reflection in Intellectual Communities. 3. [I,L♦(none)] Intellectual Community course for the Synergy learning community. Supports WA reading, research, and writing activities. Provides opportunities for students to read critically, conduct primary and secondary research, investigate diversity issues, develop computer literacy, and learn about the intellectual expectations of college life. Unaffiliated with a major department.

1600. Veterans Transition Course. 1. [I,L♦COM2] Provides returning veterans skills for successful transition to college and civilian life. Reviews tools for academic success, resources available to the veteran, information on veteran related challenges, and career planning resources. Students will develop skills in written, oral, and digital communication. *Prerequisite:* Students must be a U.S. military veteran or an active duty military member. (Normally offered fall semester)

3000. Student Leadership in Supplemental Instruction. 2. Focuses on theoretical perspectives of group tutoring and peer leadership, best practices in supplemental instruction, and student reflection. Will strengthen leadership knowledge and skills and introduce effective methods for group facilitation and SI curriculum. *Prerequisite:* closed to general enrollment.

3010. Student-Athlete Leadership Skills. 1. Designed for students to gain and apply leadership skills among other topics such as healthy relationships, nutrition, budgeting, and preparing for internships. This course builds on UWYO 1050 Student-Athlete Academic Success, and prepares the student for UWYO 3050 Student-Athlete Career Preparation. Satisfactory/Unsatisfactory only. *Prerequisite:* COM1.

3050. Student-Athlete Career Prep. 1. Works with junior and senior student-athletes as they prepare to leave college and embark on their career search. Includes topics such as: resume writing, cover letter writing, practice interviews, professional attire, interview etiquette, and mental health after college athletics. Satisfactory/Unsatisfactory only. *Prerequisite:* COM2.

3600. Veterans: Campus-To-Career. 3. [(none)♦COM3] Provides veterans with skills for successful transition from campus to the global workforce. Reviews tools for career success, resources available to veterans, information on veteran related challenges, and career planning resources. Students will develop skills in written, oral, and digital communication. Students will explore web based job search platforms and attend job fairs. Course intended for U.S. military veterans or an active duty military member. *Prerequisite:* COM2.

4101. BGS Capstone Design. 3. [(none)♦COM3] The capstone course has two major focuses: encouraging you to reflect on and integrate the learning you've done on your way to this degree and offering you the chance to apply that learning towards an interesting, important problem that makes good use of your growing expertise. The course also provides you the chance to refine your career-advancement materials and to develop a stronger understanding of the norms and values of fields that interest you. *Prerequisite:* COM2.

4965. Directed Studies/Research Problems. 1-3 (Max. 12). Interdisciplinary international undergraduate research or short-term study abroad project under the supervision of a visiting faculty member. Topics and themes will vary based on the international research and study abroad opportunities available. *Prerequisites:* Completion of COM1 and consent of instructor. Undergraduate status in good academic standing. Additional prerequisites will be determined by instructor of record.

Advising Career Exploratory Studies

222 Knight Hall

Jo Chytka, Director

Phone: (307) 766-2398 FAX: (307)766-2089

Web site: www.uwyo.edu/aces/index.html

Advising Career Exploratory Studies (ACES)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB♦Q]).

1105. Academic Success Skills. 1-2. Designed to provide students the necessary skills to succeed at the University and beyond. Skills covered include time management, learning styles, note taking, self-motivation, and more. The 2-credit ACES 1105 option is graded A-F; the 1 credit ACED 1105 option is graded satisfactory/unsatisfactory only. Students must obtain instructor approval to register.

3000. Peer Advising. 3. This course is designed to help you develop the skills, understanding, competencies, and dispositions needed to be an effective peer advisor at UW. Course content will cover student development theory, interpersonal skills, UW policies/procedures, UW academic requirements, and advising approaches. *Prerequisites:* Sophomore standing, COM2, and 2.750 UW GPA.

3100. Peer Advising Internship. 1-6 (Max. 6). Designed to help you apply the skills, competencies, and dispositions that were developed in ACES 3000. The course will allow you to apply and reflect upon student development theory, interpersonal skills, UW policies/procedures, UW academic requirements, and advising approaches. Each internship credit will require a minimum of 3 hours of work per week in the ACES office. Students and the peer advising supervisor will consult in establishing individual student hours. *Prerequisites:* ACES 3000 and application to ACES Internship.

Success and Engagement Programs

105 Coe Library

April Heaney, Director

Phone: (307) 766-3448

Web site: www.uwyo.edu/learn

STEP

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB▶Q]).

1060. College Athletics and Society. 3. This course will examine the unique relationship between intercollegiate athletics and higher education, as well as intersections that occur with gender, politics, and race.

1101. First-Year Seminar. 3. [none]<FYS]

1102. Step Into College. 1. Helps students interact with UW campus resources, staff, and faculty; learn about resources for academic support and wellness; and explore academic and co-curricular opportunities for students' professional and personal interests. Restricted to new full-time, first-year freshmen. *Prerequisite:* Freshman or sophomore class standing.

1105. Academic Success Skills. 1-2. Designed to provide students the necessary skill set to succeed at the University and beyond. Skills covered include time management, learning styles, note taking, self-motivation and more. The 2-credit STEP 1105 option is graded A-F; the 1 credit STEP 1105 option is graded Satisfactory/Unsatisfactory.

3000. Student Leadership in Supplemental Instruction. 2. Focuses on theoretical perspectives of group tutoring and peer leadership, best practices in supplemental instruction, and student reflection. Will strengthen leadership knowledge and skills and introduce effective methods for group facilitation and SI curriculum. *Prerequisite:* closed to general enrollment.

English Language Center

Cheney International Center 28

Frederica Suess, Director

Phone: (307) 766-3630

Web site: www.uwyo.edu/geo/elc

Our Mission

The English Language Center serves the University of Wyoming and surrounding community by preparing non-native speakers of English linguistically, culturally, and academically to meet the requirements for success in U.S. higher education environments and to fully engage in campus life.

Our Program

The Intensive ESL Program is a full-time English language study program. Students are in class 20 hours every week for one whole semester of 15 weeks. To study in the Intensive ESL Program, students must have an F-1 Student Visa. All instructors are experienced ESL professionals and qualified with a Masters Degree or higher in TESL or a relevant field of study.

Courses

Students take three classes daily, Monday through Thursday:

- Reading & Vocabulary: College vocabulary skills, reading strategies, and study skills.
- Listening & Speaking: Pronunciation/conversation, lecture listening, note-taking skills, and academic presentations.
- Integrated Skills: Grammar-focused reading, writing, and speaking class using topics from academic content areas.

IEP Conditional Admission: Conditional admission is available for undergraduate applicants who are academically eligible but have low language proficiency scores. Students need to do 2 applications; one for IEP and one for a degree program for consideration. *Only one application fee is needed. Contact us directly if you are interested in this option: elc@uwyo.edu.

Academic English Program

English as a Second Language (ESL)

USP Codes are listed in brackets by the 2003 USP code followed by the 2015 USP code (e.g. [QB◀▶Q]).

1110 [AS 1110]. Introduction to Academic Writing Skills. 3. Designed to introduce non-native speakers of English, who do not demonstrate the required competency in writing to enter ESL 1210, to academic writing skills. Includes instruction in grammar and sentence structure, paragraph and essay writing. *Prerequisites:* TOEFL of 18 or lower; IELTS of 5 or lower.

1210 [AS 1210; ENGL 1210]. English Composition for International Students. 3. [WA◀▶COM1]. The objective is to equip international students with procedural knowledge - a set of routines that can be applied in various academic writing patterns, such as description, process analysis, argumentation and the research essay. *Prerequisites:* TOEFL Writing sub-score of 18 or higher, IELTS Writing sub-score of 5 or higher, or instructor's consent.

1310. Academic Listening for International Students. 3. This course equips non-native speakers with focused listening strategies and note-taking skills that can be applied across a variety of academic content areas and familiarizes students with discipline specific discourse patterns. *Prerequisite:* TOEFL Listening sub-score of 18 or lower IELTS sub-score 5.0 or lower; or instructor's consent.

1410. Academic Reading for International Students. 3. This course equips non-native speakers with focused academic reading strategies across a variety of academic content areas, introduces the Academic Core Vocabulary lists, and familiarizes students with discipline specific discourse patterns. *Prerequisite:* TOEFL Reading sub-score of 18 or lower, IELTS Reading sub-score of 5.0 or lower, or instructor's consent.

2110 [AS 2110; ENGL 2110]. English Oral Skills. 3. Instruction for Novice to advanced Low speakers in refining English pronunciation, stress and intonation, listening comprehension, oral grammar practice and building vocabulary. Satisfactory/Unsatisfactory only. *Prerequisite:* consent of instructor.

3050. Advanced Academic Writing for International Students. 3. [WB◀▶COM2]. Through ESL learner targeted instruction, practices, and feedback, the course will emphasize and progressively develop transferrable skills for students' academic work and future professions. It will continue to build on writing skills and emphasize foundational oral and digital communication skills. *Prerequisite:* WA/COM1.

4010. Technical Writing for International Students. 3. [WC◀▶COM3]. Prepares students from a culturally diverse background for the communication demands of the 21st century. Students conduct rhetorical analysis of various audiences and purposes in order to design, develop, revise and edit disciplinary and interdisciplinary technical communications, such as reports, proposals, job applications, research related documents and oral presentations. *Prerequisites:* WA/COM1, WA/COM2, and junior standing.

5910. International TA Preparation. 4. Prepares international teaching assistants for the challenges language, culture, and instruction in the American classroom impose on them: training includes pronunciation/intonation, presentation skills, basics of methodology, understanding of cultural differences, and mock-lessons. One Oral Skills Lab hour per week is included. *Prerequisite:* graduate standing.

Faculty Index

- AADLAND, DAVID M., Economics
ADELT, ULRICH, History and American Studies; School of Culture, Gender, and Social Justice
ADIDHARMA, HERTANTO, Petroleum Engineering
AHERN, JAMES C., Anthropology
AHMED, MOHAMED, Civil and Architectural Engineering
AIDHY, DILPUNEET S., Mechanical Engineering
AIKEN, NEVIN, School of Politics, Public Affairs, and International Studies
ALBEKE, SHANNON, WyGISC, Geospatial Information Science and Technology
ALBERS, H. JO, Economics
ALEXANDER, ANNE, School of Politics, Public Affairs, and International Studies, Economics
ALEXANDER, BRENDA M., Animal Science
ALEXANDER, KLINT, Law
ALEXANDER, MELISSA, Law
ALEXANDROVA, EKATERINA, Modern and Classical Languages
ALLEN III, MYRON B., Mathematics and Statistics
ALVARADO, VLADIMIR, Chemical Engineering
ANATCHKOVA, BISTRA, WySAC
ANDERSEN, MATTHEW, Agricultural and Applied Economics
ANDERSON, ALLYSON, Computer Science
ANDERSON, CAROLYN, English
ANDERSON, DAVID T., Chemistry
ANDERSON, JEFFREY R., Electrical and Computer Engineering
ANDERSON, STEPHANIE, School of Politics, Public Affairs, and International Studies
ANDERSON-SPRECHER, RICHARD, Mathematics and Statistics
ANDREWS, GERARD P., Veterinary Sciences
ANTON, DAVID, Mathematics and Statistics
ARAGÓN, CECILIA, Theatre and Dance
ARNETTE, ANDREW, Management and Marketing
ARONSTEIN, SUSAN, English
ARULSAMY, NAVAMONEY, Chemistry
ARYANA, SAMAN, Chemical Engineering
ASAY, R. CLIFF, Management and Marketing
AUERBACH, DANIEL, Sociology
BAGLEY, DAVID M., Chemical Engineering
BALDWIN, NIKKI, School of Teacher Education
BALDWIN, RONALD, Family Practice
BANGOURA, BERIT, Veterinary Sciences
BANIC, AMY, Computer Science
BARKER, MICHAEL G., Civil and Architectural Engineering
BARRETT, STEVEN F., Electrical and Computer Engineering
BARRY, ROBIN A., Psychology
BARTSCH ESTES, KAREN, Psychology
BARTON, SHELLEY, Communication Disorders
BASILE, FRANCO, Chemistry
BASTIAN, CHRISTOPHER T., Agricultural and Applied Economics
BAUMBACH, DIANE, Art and Art History
BECK, JEFFREY L., Ecosystem Science and Management
BECKETT, CARLA DEE, Chemistry
BELKNAP, PAULA, Nursing
BELL, DAVID A., Chemical Engineering
BELLAMY, WILLIAM, Civil and Architectural Engineering
BELMONT, ERICA L., Mechanical Engineering
BELSER, ROBERT, Music
BEN-DAVID, MERAV, Zoology and Physiology
BENHAM DEAL, TAMI, Kinesiology and Health
BENKMAN, CRAIG, Zoology and Physiology
BENNETT, DREW, Haub School of Environment and Natural Resources
BENSON, JANICE, Accounting and Finance
BENSON, MELINDA HARM, Haub School of Environment and Natural Resources
BERGSTRAESSER, PAUL, English, Creative Writing
BERNARD, RILEY FEHR, Zoology and Physiology
BESSAIH, HAKIMA, Mathematics and Statistics
BIALOSTOK, STEVEN, School of Teacher Education
BICER, ALI, School of Teacher Education
BICER, AYSEUR, Physics and Astronomy
BIEBER, STEPHEN L., Mathematics and Statistics
BIEHLE, LAUREN R., Pharmacy
BILLINGTON, COREY, Management and Marketing
BINGHAM, BEAU, Communication and Journalism
BIRD, MICHELE, Mathematics and Statistics
BITTNER, MARK, Family and Consumer Sciences
BISHA, BLEDDAR, Animal Science
BJÖRKENWALL, RUTH, School of Politics, Public Affairs, and International Studies
BLACKLER, ADAM A., History and American Studies
BLAKELY, MICHELLE L., Pharmacy
BLOCK, JEREMY, Animal Science
BLOUIN, NICOLAS, Molecular Biology
BOARDMAN, CALEB, Animal Science
BODDICKER, MAUREEN, Music
BODILY, K. DAVID, Nursing
BOGARD, THERESA L., Music
BOOTHBY, THOMAS, Molecular Biology
BOROWCZAK, MIKE, Computer Science
BOSS, STEPHEN C., University Libraries
BOWMAN, GRANT, Molecular Biology
BOURQUE, MAGGIE, Haub School of Environment and Natural Resources
BRANT, JONATHAN A., Civil and Architectural Engineering
BRIDGEMAN, JACQUELYN, School of Culture, Gender, and Social Justice and Law
BROCK, CYNTHIA, School of Teacher Education
BROOMFIELD, JAMES F., Family Practice
BROTHERTON, MICHAEL S., Physics and Astronomy
BROWN, AMBER, Economics
BROWN, ANTOINETTE, Pharmacy
BROWN, GREGORY K., Botany, A&S Dean's Office
BROWN, TRAVIS, Pharmacy
BROWN, TYLER, Geology and Geophysics
BRUCH, DAVID C., Pharmacy
BUCKNER, KIM, Computer Science
BUERKLE, ALEX, Botany
BURCHETT, ASHLEY M., English
BURCHETT, MOLLY, Management and Marketing
BURROWS, ANDREA, School of Teacher Education
BUSH, ERIN J., Communication Disorders
BUSHMAN, JARED, Pharmacy
BUSS, ALAN R., School of Teacher Education
BUTLER, STEVEN, WySAC
BYRA, MARK, Kinesiology and Health
CAIN, WILLIAM, School of Counseling, Leadership, Advocacy & Design
CALDWELL, JAMES L., Computer Science
CALKINS, KAIJSA, University Libraries
CAMPBELL, WILLIAM, Economics
CANEN, ERIC, WySAC
CARLING, MATTHEW, Zoology and Physiology
CARLISLE, ASHLEY HOPE, Art and Art History
CARNES-HOLT, KARA, School of Counseling, Leadership, Advocacy & Design
CARR, BRADLEY, Geology and Geophysics
CARRON, REBECCA, Nursing
CARTER, RICHARD, School of Counseling, Leadership, Advocacy & Design
CAWLEY, ROBERT M., School of Politics, Public Affairs, and International Studies
CAULTON, DANA, Atmospheric Science
CHAMBERLAIN, KEVIN R., Geology and Geophysics
CHAMBERLIN, MICHELLE T., Mathematics and Statistics
CHAMBERLIN, SCOTT A., School of Teacher Education
CHAO, JIANG, Electrical and Computer Engineering
CHAPMAN, BILLIE J., Social Work
CHAPMAN, JAMES, Geology and Geophysics
CHEADLE, MICHAEL J., Geology and Geophysics
CHECA-GARCÍA, IRENE, Modern and Classical Languages
CHEN, KUI, Chemistry

- CHEN, PO, School of Energy Resources/
Geology and Geophysics
- CHEN, YI-LING, School of Politics, Public
Affairs, and International Studies
- CHENG, TA-TUN (STEPHANIE),
Accounting and Finance
- CHERNYAVSKIY, PAVEL,
Mathematics and Statistics
- CHERRY, TODD, Economics
- CHERRINGTON, BRIAN D.,
Zoology and Physiology
- CHESTEK, KENNETH D., Law
- CHHATRE, VIKRAM, Molecular Biology
- CHIEN, TEYU, Physics and Astronomy
- CHOI, NICOLE, Accounting and Finance
- CHRISTIANSON, DAVID, Ecosystem
Science and Management
- CLAPP, JOSHUA D., Psychology
- CLAPP WADDELL, TARA K., Psychology
- CLARKE, PAMELA N., Nursing
- CLEMENTS, NATHAN,
Mathematics and Statistics
- CLEMENTZ, MARK T., Geology
and Geophysics
- CLENNAN, EDWARD L., Chemistry
- CLUNE, JEFF, Computer Science
- CODALLOS, KYM, Social Work
- COLLIE, GILLIAN, English
- COLLIER, TIMOTHY R., Ecosystem
Science and Management
- COLLINS, SARAH M., Zoology and Physiology
- COLTER, ROBERT S., Philosophy
and Religious Studies
- CONNOLLY, CATHERINE, School of
Culture, Gender, and Social Justice
- CONSIDINE, TIMOTHY J., Economics,
School of Energy Resources
- COOK, BENJAMIN, Economics
- COOK, TIFFANY, WySAC
- COON, DENNIS N., Mechanical Engineering
- COOPER, KAATIE, Communication
and Journalism
- CORNISH, TODD E., Veterinary Sciences
- COSTELLO, HUMPHREY, WySAC
- COUPAL, ROGER, Agricultural
and Applied Economics
- COVER, DANIELLE R., Law
- CRAIT, JAMIE, Botany
- CRAMER, NICHOLAS, WySAC
- CRANE, NICHOLAS, Geography;
School of Politics, Public Affairs,
and International Studies
- CRAWFORD, SCOTT, Mathematics
and Statistics
- CREEL, JAMES, English
- CRUZ, CHARLIE P., Medical
Laboratory Science
- CULVER, BRUCE W., Pharmacy
- CURRANO, ELLEN D., Botany
- CUTHBERTSON, DOUGLAS,
Petroleum Engineering
- CUZZOCREO, MATTHEW R.,
Wyoming Cooperative Unit
- DAHL, ETHAN, Wyoming Institute
for Disabilities (WIND)
- DAHNOVSKY, YURI, Physics and Astronomy
- DAI, BOYI, Kinesiology and Health
- DALE, DANIEL, Physics and
Astronomy, Interim Dean
- DALRYMPLE, HOLLY, Music
- DECKER, BRIDGET, Molecular Biology
- DeDIEGO, AMANDA, School of Counseling,
Leadership, Advocacy & Design
- DEJAM, MORTEZA, Petroleum Engineering
- DELANEY, JAMES M., Law
- DELLENBACK, PAUL A.,
Mechanical Engineering
- DELOZIER, LAURA, Modern
and Classical Languages
- DeYOUNG, KYLE P., Psychology
- DENNEY, COLLEEN, School of Culture,
Gender, and Social Justice
- DENZER, ANTHONY S., Civil and
Architectural Engineering
- DESPAIN, LARAN, WySAC
- DEWEY, JANET, Geology and Geophysics
- DILLON, MICHAEL, Zoology and Physiology
- DIXON, FREDRICK D., School of
Culture, Gender, and Social Justice
- DOERING, BRIANA, Anthropology
- DOLAN, CHARLES W., Civil and
Architectural Engineering
- DOLENCE, E. KURT, Pharmacy
- DOMÈNECH, CONXITA, Modern
and Classical Languages
- DORSSOM, MICHAEL, WySAC
- DORWART, JENN, Accounting and Finance
- DOUGLAS, CRAIG C., Mathematics and
Statistics, School of Energy Resources
- DOWNES, WILLIAM MISSOURI,
Theatre and Dance
- DOXTATER, JED M., Medical
Laboratory Science
- DRIESE, KENNETH, WyGISC, Geospatial
Information Science and Technology
- DRUMMOND, KENT G., English
- DUAN, DONGLIANG, Electrical
and Computer Engineering
- DUEKER, KENNETH G.,
Geology and Geophysics
- DUFF, MICHAEL, Law
- DUTTA, DEBASHIS, Chemistry
- EASTON, STEPHEN, Law
- EBERLE, CARRIE, Plant Sciences
- EDGENS, JEFFERSON, Agricultural
and Applied Economics
- EDSON, MICHAEL, English
- EGGLESTON, CARRICK M.,
Geology and Geophysics
- EHMKE, COLE, Agricultural and
Applied Economics
- EHMKE, MARIAH, Agricultural
and Applied Economics
- ELLBOGEN, MARTIN JR., Family Practice
- ELSHEHABI, TAWFIK,
Petroleum Engineering
- ERNEST, HOLLY, Veterinary Sciences
- ESCALANTE, CHELSEA, Modern
and Classical Languages
- EWERS, BRENT E., Botany
- EWIG, RICHARD G., American
Heritage Center
- FADIAL, JOHN M., JR., Music
- FALL, TYLER S., Philosophy
and Religious Studies
- FAN, MAOHONG, School of Energy
Resources, Petroleum Engineering
- FAY, DAVID, Molecular Biology
- FELDMAN, LAURA, WySAC
- FELDMAN, STEPHEN M., Law
- FERRE-PIKAL, EVA S., Electrical
and Computer Engineering
- FERTIG, RAY, Mechanical Engineering
- FESTA, MACKENZIE, Accounting
and Finance
- FETSCO, DANIEL, Criminal Justice
- FETZER, WILLIAM WARREN,
Zoology and Physiology
- FINE, PETER, Art and Art History
- FINNOFF, DAVID C., Economics
- FISHER, RICK, English
- FITCH, ANDREW, Creative Writing
- FLESHER, PAUL V.M., Philosophy
and Religious Studies
- FOOR, SCOTT, Communication Disorders
- FOULKE, THOMAS, Agricultural
and Applied Economics
- FOX, JONATHAN H., Veterinary Sciences
- FOX, MATTHEW, Management and Marketing
- FRANCIS, MATTHEW, American
Heritage Center
- FREEDMAN, KIT, Haub School of
Environment and Natural Resources
- FREEMAN, LINDSEY, School
of Teacher Education
- FRENCH, JEFFREY, Atmospheric Science
- FRENG, ADRIENNE B., Criminal Justice
- FRENG, SCOTT, Psychology
- FRICK, CARL, Mechanical Engineering
- FROME, CASEY, Management and Marketing
- FROST, CAROL D., Geology and Geophysics
- FRYE, KATHLEEN, Art and Art History
- FRYE, SUSAN, English
- FU, XUEBING, Petroleum Engineering
- FURTADO, FREDERICO da CUNHA,
Mathematics and Statistics
- GABRIELSON, TEENA J., School of
Politics, Public Affairs, and International
Studies and A&S Dean's Office
- GAETZ, IVAN, University Libraries, Dean
- GAMBOA, RUBEN, Computer Science
- GARCIA, TERESA J.,
Communication Disorders
- GARDZELEWSKI, JON, Civil and
Architectural Engineering
- GARNER, ANDREW, Political Science
- GARRISON, JEAN A., School of Politics,
Public Affairs, and International Studies
- GASEM, KHALED A.M.,
Petroleum Engineering
- GATLIN, JESSE, Molecular Biology
- GEERTS, BART, Atmospheric Science
- GELLIS, BRANDON, Art and Art History
- GELZER, EMILY R., Wyoming
Cooperative Unit

- GERACE, SELENA, Agricultural and Applied Economics
- GERINGER, JENNIFER, School of Teacher Education
- GERNANT, ALLISON, English
- GEROW, KENNETH, Mathematics and Statistics
- GIGLEY, JASON, Molecular Biology
- GILBERT, LAUREN, WySAC
- GILMAN-KEHRER, ESTHER, Nursing
- GINTING, VICTOR, Mathematics and Statistics
- GLOVER, MARK, Law
- GODBY, ROBERT W., Economics, Haub School of Environment and Natural Resources
- GOHEEN, JACOB R., Zoology and Physiology
- GOLDMAN, BENJAMIN, American Heritage Center
- GOLLADAY, KATELYN, Criminal Justice
- GOMELSKY, MARK, Molecular Biology
- GOODIN, SUSANNA L., Philosophy and Religious Studies
- GOODWIN, ELIZABETH, Nursing
- GORONCY, ALEXANDER, Chemistry
- GOUAL, LAMIA, Petroleum Engineering
- GRAHAM, ANDREA, History and American Studies
- GRANA, DARIO, School of Energy Resources, Geology and Geophysics
- GRANT, EMILY, WySAC
- GRAY, MATTHEW J., Psychology
- GREER, RACHELLE R., English
- GRIESMAIER, FRANZ-PETER, Philosophy and Religious Studies
- GRIFFITH, MICHAEL, Music
- GRIFFITHS, SHAWN C., Civil and Architectural Engineering
- GUIBERSON, MARK, Communication Disorders
- GUNDERSON, JAMES, Accounting and Finance
- GUSTAFSON, KIMBERLY, School of Teacher Education
- GUZZO, ANNE, Music
- HAGY, ALYSON, Creative Writing
- HALL, LEIGH, School of Teacher Education
- HALL, MARILYN, Nursing
- HAMERLINCK, JEFFREY D., WyGISC, Geospatial Information Science and Technology
- HAN, TAO, School of Teacher Education
- HANSEN, KRISTIANA M., Agricultural and Applied Economics
- HARDESTY, CANYON, Wyoming Institute for Disabilities (WIND)
- HARDIN-JONES, MARY, Communication Disorders
- HARDY, LEAH, Art and Art History
- HARKIN, ALISON, School of Culture, Gender, and Social Justice
- HARKIN, MICHAEL E., Anthropology
- HARMON, JENNIFER, Family and Consumer Sciences
- HARNISH, BRIAN, WySAC
- HART, ANN MARIE, Nursing
- HARTSKY, ESTHER, Communication Disorders
- HARTUNG, CYNTHIA M., Psychology
- HAVIG, KIRSTEN, Social Work
- HAYDON, MARGARET, Art
- HE, GUANGLONG, Pharmacy
- HEANEY, APRIL, English, Creative Writing, LeARN
- HEINZ, PETRA, English Language Center
- HEINZ, STEFAN, Mathematics and Statistics
- HEISE, TAMMY, Philosophy and Religious Studies
- HEITHOLT, JIM J., Plant Sciences
- HELFGOTT, ISADORA, History and American Studies
- HENKEL, SCOTT, English
- HERDT, JASCHA, School of Culture, Gender, and Social Justice
- HERT, TAMSEN L., University Libraries
- HESS, BRET W., Animal Science
- HEWLETT, JOHN, Agricultural and Applied Economics
- HICKMAN, BARBARA, School of Counseling, Leadership, Advocacy & Design
- HIDECKER, MARY JO C., Communications Disorders
- HILAIRE, MICHELLE L., Pharmacy
- HILGERT, CHRIS, Plant Sciences
- HILL, CALEB, Chemistry
- HIME, SHAWN, WySAC
- HITCHCOCK, JOHN M., Computer Science
- HIX, HARVEY, Philosophy and Religious Studies, Creative Writing
- HOBERG, JOHN O., Chemistry
- HODZA, PADDINGTON, WyGISC, Geospatial Information Science and Technology
- HOLBROOK, JOSEPH, Haub School and Environment and Natural Resources, Zoology and Physiology
- HOLLAND, JEANNE E., English
- HOLLES, JOSEPH, Chemical Engineering
- HOLMES, MALCOLM D., Sociology
- HORNECKER, JAMIE R., Pharmacy
- HOUSEAL, ANA, School of Teacher Education, Science and Mathematics Teaching Center
- HOVHANNISYAN, VARDGES, Agricultural and Applied Economics
- HOYT, LINDSAY, Law
- HSU, SANDY, Communication and Journalism
- HUFFORD, KRISTINA, Ecosystem Science and Management
- HUGHES, CYNTHIA D., University Libraries
- HULLEY, ELLIOTT, Chemistry
- HUMPHREY, NEIL F., Geology and Geophysics
- HUNT, TIFFANY, School of Counseling, Leadership, Advocacy & Design
- HUNTER, MELISSA, Pharmacy
- HUTCHENS, CHAD, University Libraries
- HUTCHISON, LINDA, School of Teacher Education
- HUYNH, XAUN-XABIER, Modern and Classical Languages
- IAMS, HELEN, Family Practice
- INGWERTSON, JENNIFER, Animal Science
- INNES, PAMELA J., Anthropology
- INOUYE, MARTHA, Science and Mathematics Teaching Center
- IRICK, ERIN, Family and Consumer Sciences
- ISAACS, BRANDON, Family Practice
- ISLAM, M. ANOWARUL, Plant Sciences
- JABBOUR, RANDA, Plant Sciences
- JACKSON, DARRELL D., Law
- JACOBS, FRANCOIS, Construction Management
- JACOBS, LANDEE, Theatre and Dance
- JAFARI, FARHAD, Mathematics and Statistics
- JAIME, ANGELA, School of Culture, Gender, and Social Justice
- JAIN, PAWAN, Accounting and Finance
- JANG-CONDELL, HANNAH, Physics and Astronomy
- JANUS, THORSTEN M., Economics
- JARMAN, MICHELLE, Wyoming Institute for Disabilities (WIND)
- JARVIS, DONALD L., Molecular Biology
- JENKINS, JAYNE M., Kinesiology and Health
- JIN, SONG, Civil and Architectural Engineering
- JOHN, BARBARA E., Geology and Geophysics
- JOHNSON, ERIC N., Accounting and Finance
- JOHNSON, EVAN C., Kinesiology and Health
- JOHNSON, JAMES A., Anthropology
- JOHNSON, PATRICK, Chemical Engineering
- JOHNSON, RAYMOND B., Family Practice
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- JONES, DAVID, Art and Art History
- JONES, DAVID L., Communication Disorders
- JONES-RITTEN, CHIAN, Agricultural and Applied Economics
- KALEN, SAM, Law
- KAMBUTU, JOHN, School of Teacher Education
- KASZUBA, JOHN P., Geology and Geophysics, School of Energy Resources
- KATO, MUNEYUKI, WySAC
- KATZMANN, JASON, School of Teacher Education
- KEITH, JILL, Family and Consumer Sciences
- KELLENNERS, THIJS, Ecosystem Science and Management
- KELLER, MARY, Philosophy and Religious Studies
- KELLEY, JONATHAN P., Zoology and Physiology
- KELLY, ALEXANDRA, History and American Studies, Anthropology
- KELLY, ROBERT L., Anthropology
- KEMPSON, DIANE A., Social Work
- KIHN, PAULA, Nursing
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- KITCHEN, RICHARD, School of Teacher Education
- KLADIANOS, JAMES, Civil and Architectural Engineering

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 KNIEVEL, MICHAEL, English
 KNIGHT, MARSHA F., Theatre and Dance
 KNISS, ANDREW, Plant Sciences
 KNOBLOCH, FRIEDA E., History and American Studies; Creative Writing
 KNOX, CHRISTINA, Mathematics and Statistics
 KOBULNICKY, HENRY A., Physics and Astronomy
 KOCKEN, GREGORY, American Heritage Center
 KONESKO, PATRICK, Theatre and Dance
 KOOIENGA, SARAH, Nursing
 KORFANTA, NICOLE, Haub School of Environment and Natural Resources
 KORNFELD, MARCEL, Anthropology
 KOSKI, KRISTOPHER, School of Energy Resources
 KOTLAREK, KATELYN, Communication Disorders
 KOTTHOFF, LARS, Computer Science
 KREISER, JENNIFER, Accounting and Finance
 KREISER, PATRICK, Management and Marketing
 KRIST, AMY, Zoology and Physiology
 KRSZJZANIEK, ERIC, Management and Marketing
 KRUEGER, BREANNA, Communication Disorders
 KRUEGER, JANELLE L., Pharmacy
 KRUEGER, KEM, Pharmacy
 KRUGER, DAVID D., University Libraries
 KSAIBATI, KHALED, Civil and Architectural Engineering
 KUBELKA, GINKA, Chemistry
 KUBICHEK, ROBERT F., Electrical and Computer Engineering
 KUSEK, ANTHONY, Air Force ROTC
 KUZNETSOVA, MARIA I., Psychology
 KVENILD, CASSANDRA, University Libraries
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 LAEGREID, WILLIAM W., Veterinary Sciences
 LAKE, SCOTT, L., Animal Science
 LAMARTINE, NICOLE C., Music
 LAN, CHAO, Computer Science
 LANDEIRA, JOY, Modern and Classical Languages
 LANDREVILLE, KRISTEN, Communication and Journalism
 LANDSVERK, RICHARD, Air Force ROTC
 LANGER, PAMELA J., Molecular Biology
 LARSON, MARY LOU, Anthropology
 LARSON, MICHELE D., Life Sciences
 LAU, KIMBERLY, Geology & Geophysics
 LAUGHLIN, DANIEL, Botany
 LEACH, MARK, Management and Marketing
 LEAR, JANET, School of Teacher Education
 LEBO, ZACHARY J., Atmospheric Science
 LEDUC, ROBERT, WYSAC
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 LEE, LONG, Mathematics and Statistics
 LEHMAN, AMANDA, University Libraries
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 LEONARD, BRIAN, Chemistry
 LEONARD, JACQUELINE, School of Teacher Education
 LEOTTI, SANDY, Social Work
 LEVY, DANIEL, Molecular Biology
 LI, DONGMEI (KATIE), Chemical Engineering
 LI, LI, Communications and Journalism
 LI, YUN, Zoology and Physiology
 LINDSTROM, GRANT L., Management and Marketing
 LINN, BECKY, Pharmacy
 LIPING, WANG, Civil and Architectural Engineering
 LIU, MATTHEW, Communication and Journalism
 LIU, RONGSONG, Mathematics and Statistics; Zoology and Physiology
 LIU, XIAOHONG, Atmospheric Science
 LIU, YANG, Mechanical Engineering
 LIVINGSTON, GREG, Management and Marketing
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 LUDDEN, PAUL A., Animal Science
 LUTZ, PAULA M., Zoology and Physiology, A&S Dean
 LYFORD, MARK, Botany, ECTL
 LYNCH, ELIZABETH, Anthropology
 LYUKSYUTOVA, ANNA, Molecular Biology
 MACAULAY, DAVID, University Libraries
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 MAHAPATRA, NEELY, Social Work
 MAHVAN, TRACY D., Pharmacy
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 MALLICK, SUBHASHIS, Geology and Geophysics, School of Energy Resources
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 MALMBERG, JENNIFER L., Veterinary Sciences
 MANN, ALLISON, Pharmacy
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 MARKLEY, BENJAMIN, Music
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 MARTINEZ DEL RIO, CARLOS, Zoology and Physiology
 MASON, CHARLES F., Economics
 MAVRIPLIS, DIMITRI J., Mechanical Engineering
 McALLISTER, TYRRELL, Mathematics and Statistics
 McBRIDE, SHAWNA, Physics and Astronomy
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 McDONALD, DAVID B., Zoology and Physiology
 McELROY, BRANDON, Geology and Geophysics
 McELWAIN, ALYSSA, Family and Consumer Sciences
 McGEE, BLAKE, Music
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 McGEE, NANCY, Nursing
 McGINITY, RICHARD C., Management and Marketing
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 McKIBBIN, CHRISTINE L., Psychology
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 McLANE, LAUREN, Criminal Justice, Law
 McLEOD, DON, Agricultural and Applied Economics
 McMANUS, PATRICK, Civil and Architectural Engineering
 MEALOR, BRIAN, Plant Sciences
 MEANS, JEFFREY D., History and American Studies
 MEANS, WARRIE J., Animal Science
 MERCIL, AMBER, Accounting and Finance
 MERKLE, BETHANN, Wyoming Cooperative Unit
 MERKLE, JEROD A., Zoology and Physiology
 MICHALEK, RUDI, Physics and Astronomy
 MILES, NOAH, Modern and Classical Languages
 MILLER, KATE C., Geology and Geophysics
 MILLER, MARCIE, Civil and Architectural Engineering
 MILLER, MICHAEL, Family Practice
 MILLER, MYRNA M., Veterinary Sciences
 MILLER, SCOTT N., Ecosystem Science and Management
 MILLER, STEVEN L., Botany
 MINCKLEY, TOM, Geology and Geophysics
 MINEAR, MEREDITH, Psychology
 MINTON, ELIZABETH, Management and Marketing
 MOLETT, STACEY, Army ROTC
 MONTEITH, KEVIN, Haub School of Environment and Natural Resources, Zoology and Physiology

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Mathematics and Statistics
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of Teacher Education
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of Counseling, Leadership,
Advocacy & Design
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and American Studies
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of Counseling, Leadership,
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Architectural Engineering
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Mechanical Engineering
- MRUK, KAREN, Pharmacy
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Architectural Engineering
- MUKNAHALLIPATNA, SURESH S.,
Electrical and Computer Engineering
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Science and Management
- MURPHY, MELISSA, Anthropology
- MURPHY, SHANE, Atmospheric Science
- MYERS, ADAM, Physics and Astronomy
- MYERS, JAMES D., Geology and Geophysics
- MYRAN, LEENA, Pharmacy
- NAGLER, AMY, Agricultural and
Applied Economics
- NAIR, SREEJAYAN, Pharmacy
- NASCHOLD, FELIX, Economics
- NAUGHTON, JONATHAN W.,
Mechanical Engineering
- NAVRATIL, AMY M., Zoology and Physiology
- NEJADMALAYERI, ALI,
Accounting and Finance
- NELSON, BURRELL, Botany
- NELSON, JESSICA, School of Culture, Gender,
and Social Justice; Anthropology
- NEWBOLD, STEPHEN, Economics
- NG, KAM, Civil and Architectural Engineering
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Teacher Education
- NGUYEN, NGA, Electrical and
Computer Engineering
- NGUYEN, THANH-NGA, Pharmacy
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Leadership, Advocacy & Design
- NICKERSON, GREGORY, Wyoming
Cooperative Unit
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Affairs, and International Studies
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Science and Management
- NIU, ZHUANG, Mathematics and Statistics
- NOBLE, KENT, Management and Marketing
- NOJABAEI, BAHAREH,
Petroleum Engineering
- NORTH, CHRISTOPHER, Life
Sciences, Botany
- NORTHROP, KATE, Creative Writing
- NORTON, JAY, Ecosystem Science
and Management
- NORTON, URSZULA, Plant Sciences
- NOVAK, DOMEN, Electrical and
Computer Engineering
- NOVOGRODSKY, NOAH B., Law
- NUNEZ, NARINA L., Psychology
- OAKEY, JOHN, Chemical Engineering
- O'BRIEN, JOHN F., Electrical and
Computer Engineering
- O'BRIEN, YELENA, Electrical and
Computer Engineering
- O'TOOLE, DONAL T., Veterinary Sciences
- OBERT, JULIA, English
- OGGERO, ELENA, Electrical and
Computer Engineering
- OHARA, NORIAKI, Civil and
Architectural Engineering
- OLER, MITCHELL, Accounting and Finance
- ONETO, STEPHANIE A.,
Management and Marketing
- OUNG, ALVIN, Pharmacy
- PAGE, ERIN, Communication Disorders
- PAGE, JAMES, Family Practice
- PAGNACCO, GUIDO, Electrical and
Computer Engineering
- PAIGE, VIRGINIA B., Ecosystem
Science and Management
- PAISLEY, STEVEN I., Animal Science
- PANTER, KAREN, Plant Sciences
- PARK, EUNSOOK, Molecular Biology
- PARKER, SYLVIA, Science and
Mathematics Teaching Center
- PARKINSON, BRUCE A., Chemistry, SER
- PARKS, DOUGLAS S., Family Practice
- PAROLIN, PETER, English,
Honors College Dean
- PARSEKIAN, ANDREW, Civil Engineering;
Geology and Geophysics
- PASEK, JUDITH E., University Libraries
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of Teacher Education
- PATTON, TRACEY OWENS, Communication
and Journalism, School of Culture,
Gender, and Social Justice
- PEARCE, AMY, Law
- PEARSON, TIMOTHY, WySAC
- PEARSON, ZOE, Geography; School
of Politics, Public Affairs, and
International Studies
- PEPPER, CAROLYN M., Psychology
- PERSON, DEBORA, Law
- PERSON, MARK, Modern and
Classical Languages
- PETERSON, C. MARK, Management
and Marketing
- PETERSON, MARNIE, Pharmacy
- PEXTON, VALERIE, English, Creative Writing
- PICCORELLI, ANNALISA,
Mathematics and Statistics
- PICCORELLI, JUSTIN, School of Politics,
Public Affairs, and International Studies
- PICKETT, BRENT, School of Politics, Public
Affairs, and International Studies
- PIERCE, MICHAEL, Physics and Astronomy
- PIERRE, JOHN W., Electrical and
Computer Engineering
- PIGNATARO, MARGARITA, School of
Culture, Gender, and Social Justice
- PIKAL, JON M., Electrical and
Computer Engineering
- PIRI, MOHAMMAD, School of Energy
Resources, Petroleum Engineering
- PISHKO, MICHAEL, Chemical Engineering
- PLUMB, TAWNIA, Law
- PORTER, CHRISTINE,
Kinesiology and Health
- PRATHER, JONATHAN, Zoology
and Physiology, Director of
Life Sciences Program
- PRATT, KARA, Zoology and Physiology
- PRICE, LINDA, Management and Marketing
- PRICE SCHULTZ, CINDY J.,
Communication and Journalism
- PRIDGEN, MARY D., Law
- PRINCE, NICHOLAS, Management
and Marketing
- PROCTOR, J'LAINE, Nursing
- PRZYGOCKI, JAMES, Music
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- QUAGGIN HARKIN, ALISON, Wyoming
Institute for Disabilities (WIND)
- RAHEL, FRANK J., Zoology and Physiology
- RAMPOLLA, PEDRO, WySAC
- RASHFORD, BENJAMIN, Agricultural
and Applied Economics
- RASKA-MILLER, KIMBERLY, Nursing
- RAULSTON, TOMMY, Accounting and Finance
- READDY, R. TUCKER,
Kinesiology and Health
- REN, JUN, Pharmacy
- RETTLER, BRADLEY, Philosophy
and Religious Studies
- REUTZEL, D. RAY, College of Education Dean
- REYNOLDS, TODD, School of
Teacher Education
- RICE, WILLIAM, Physics and Astronomy
- RICHARD, KAREN, Communication
Disorders
- RICUPERO, BRYAN, University Libraries
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- RIGGIN, GEORGE, Army ROTC
- RIGHETTI, TARA, School of
Energy Resources, Law
- RINER, NICOLE A., Music
- RITCHIE, MARK, Art and Art History
- RITTEN, JOHN, Agricultural and
Applied Economics
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- ROBERTSON, DANA, School
of Teacher Education
- ROBINSON, JIM, Accounting and Finance
- ROBISON, JASON, Law
- ROBISON, RANI, Art and Art History
- ROBISON, TIGER, Music
- ROBITAILLE, BETH, Family Practice
- RODRIGUEZ HICKS, SONIA, Modern
and Classical Languages
- ROMERO, ALAN, Law

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Institute for Disabilities (WIND)
- ROSENBLUM, AARON,
Accounting and Finance
- ROTHFUSS, HEATHER, Zoology
and Physiology
- RUBIO-WALLACE, SHERRIE, Nursing
- RUDD, WILLIAM, Wyoming Cooperative Unit
- RULE, DANIEL C., Animal Science
- RUNYON, SIMONE, Geology & Geophysics
- RUSH, LESLIE, School of Teacher Education
- RUSSEL, BAILEY, Art and Art History
- RUSSELL, CASKEY, English, School of
Culture, Gender, and Social Justice
- RUSSELL, DOUG, Art and Art History
- SAILOR, RACHEL, Art and Art History
- SANDOVAL, CORRI,
Communication Disorders
- SARAJI, SOHEIL, Petroleum Engineering
- SARANGI, DEBALIN, Plant Sciences
- SCASTA, J. DEREK, Ecosystem
Science and Management
- SCHERR, FREDERICK P., Family Practice
- SCHILLINGER, JESSICA, WySAC
- SCHMIDT, LAWRENCE O.,
University Libraries
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Teacher Education
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of Politics, Public Affairs, and
International Studies
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- SCULL, REED, School of Counseling,
Leadership, Advocacy & Design
- SEITZ, THOMAS R., School of Politics, Public
Affairs, and International Studies
- SELTING, LEIGH, Honors
College, Associate Dean
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- SHADER, BRYAN L., Mathematics
and Statistics
- SHADWELL, SHELBY, Art and Art History
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Science and Management
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Heritage Center
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and Religious Studies
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Geology and Geophysics
- SHINSTINE, DEBBIE, Civil and
Architectural Engineering
- SHOEMAKER, LAUREN, Botany
- SHOGREN, JASON F., Economics
- SHUMAN, BRYAN, Geology and Geophysics
- SIEGER, CRYSTAL, Music
- SIMPSON, JANELLE, WySAC
- SIMS, KENNETH, Geology and Geophysics
- SINGH, RESHMI, Pharmacy
- SINIFT, SHERRY, Music
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Geospatial Information
Science and Technology
- SKIBA, ALEXANDRE, Economics
- SKINNER, DONALD C., Honors College
- SKINNER, MEGAN MCGUFFEY,
Family and Consumer Sciences
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of Teacher Education
- SMALL, NANCY, English
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- SMITH, MARCI, Kinesiology and Health
- SMITH, MICHAEL R., Law
- SMITH, RONN, Management and Marketing
- SMITH, SHERRILL J., Nursing
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Environment and Natural Resources,
Agricultural and Applied Economics
- SNYDER, JAMIE, Criminal Justice
- SNIDER, JEFFERSON R., Atmospheric Science
- SOHIER, BÉNÉDICTE, Modern
and Classical Languages
- SONDGEROTH, KERRY, Veterinary Sciences
- SOTO, LILIA, History and American
Studies, School of Culture,
Gender, and Social Justice
- SPARKS, JEREMY, Aerospace Studies
- SPIKER, AMY, School of Teacher Education
- SPRAGUE, ROBERT D., Management
and Marketing
- SPROTT, DAVID, Management and
Marketing, Dean, College of Business
- SPROUT AHRENHOLTZ, TREVA,
Family and Consumer Sciences
- STAHL, PETER D., Ecosystem
Science and Management
- STANESCU, DAN, Mathematics and Statistics
- STEELE, REBECCA, Modern and
Classical Languages
- STEEVE, ROGER, Communication Disorders
- STEINKRAUS, HOLLY, Molecular Biology
- STEINMAN, BERNARD, Family
and Consumer Sciences
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- STEWART, JUSTIN, Communication
and Journalism
- STEWART, MITZI, Communication
and Journalism
- STEWART, WHIT, Animal Science
- STIDOLPH, CANDACE, Nursing
- STOELLINGER, MICHAEL,
Mechanical Engineering
- STOELLINGER, TEMPLE, Haub School of
Environment and Natural Resources, Law
- STOESZ, ERIN, Science and
Mathematics Teaching Center
- STUMP, WILLIAM, Plant Sciences
- SUN, QIAN QUAN, Zoology and Physiology
- SUROVELL, TODD, Anthropology
- SWANSON, DEREK, Civil and
Architectural Engineering
- SWAPP, SUSAN, Geology and Geophysics
- SYNAKOWSKI, EDMUND,
Physics and Astronomy
- TABLER, JENNIFER, Sociology
- TAGGART, GABEL, School of Politics, Public
Affairs, and International Studies
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Petroleum Engineering
- TAN, GANG, Civil and Architectural
Engineering
- TANG, JINKE, Physics and Astronomy
- TANNER, JENNIFER E., Civil and
Architectural Engineering
- TARWATER, COREY E., Zoology
and Physiology
- TAYLOR, MICHAEL, Chemistry
- TAYLOR, ZACHARY, School of Politics,
Public Affairs, and International Studies
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- TEKIELA, DAN, Plant Sciences
- TEMAN, ERIC, School of Counseling,
Leadership, Advocacy & Design
- TEULE, FLORENCE, UW-Casper
- THAKAR, AMIT, Neuroscience
- THAYER, DAVID, Physics and Astronomy
- THIEL, CHASE, Management and Marketing
- THOMA, AUSTIN, Communication
and Journalism
- THOMAS, JENIFER, Nursing
- THOMAS, RACHEL, Nursing
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American Heritage Center
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- THOMPSON, ROD, School of
Teacher Education
- THOMPSON-EBANKS,
VALERIE, Social Work
- THORSNESS, MARY K., Molecular Biology
- THORSNESS, PETER E., Molecular Biology
- THUNSTROM, LINDA, Economics
- THYAGARAJAN, BASKARAN, Pharmacy
- TIAN, JIFA, Physics and Astronomy
- TODD, W.D. (TREY), Zoology and Physiology
- TOELLE, BRIAN, Petroleum Engineering
- TOLO, KHAMA-BASSILI, Modern
and Classical Languages
- TOOHEY, JASON, Anthropology
- TREICK, PHILIP, Accounting and Finance
- TRELEASE-BELL, AMY, Family Practice
- TRENT, ALLEN, School of Teacher Education
- TULL, CANDACE, Nursing
- TURPEN, J. SCOTT, Music
- TURPEN, JENNIFER, Music
- URYNOWICZ, MICHAEL A., Civil
and Architectural Engineering
- VALI, GABOR, Atmospheric Science
- VAN DIEPEN, LINDA, Ecosystem
Science and Management
- VAN 'T VELD, KLAAS T., Economics
- VANDEBORGH, BETH, Music
- VANDIVER, JEREMY W., Pharmacy
- VAUGHAN, KAREN L., Ecosystem
Science and Management
- VIETTI, LAURA, Geology and Geophysics
- WACHOB, DOUG, Haub School of
Environment and Natural Resources
- WADE, CHRISTINE, Family and
Consumer Sciences

- WAGGENER, JOHN, American Heritage Center
- WAGGENER, LESLIE, American Heritage Center
- WAGNER, CATHERINE, Botany
- WALKER, PETER, History and American Studies
- WALL, DANIEL, Molecular Biology
- WALLHEAD, TRISTAN, Kinesiology and Health
- WALRATH, DAVID E., Mechanical Engineering
- WAMBEAM, RODNEY, WySAC
- WANG, LIPING, Civil and Architectural Engineering
- WANG, WENYONG, Physics and Astronomy
- WARD, JAMES, Computer Science
- WARD, NAOMI, Botany
- WARD, SETH, Philosophy and Religious Studies
- WARREN, CHRISTINA, Nursing
- WATSON, RACHEL, Chemistry
- WATSON, WILTON, Creative Writing
- WAWROUSEK, KAREN, Chemical Engineering
- WEATHERMON, RICK, Anthropology
- WEBER, WILLIAM, Mathematics and Statistics
- WEINIG, CYNTHIA, Botany, Molecular Biology
- WEISS-LEHMAN, CHRISTOPHER, Botany
- WELSH, KATHERINE MUIR, School of Teacher Education
- WESTERN, JESSICA, Haub School of Environment and Natural Resources
- WHEELOCK, ANDREW, Music
- WHITE, CLAIR, Criminal Justice
- WILCOX, KEVIN, Ecosystem Science and Management
- WILDMAN, KAREN M., Family Practice
- WILKOWSKI, BENJAMIN, Psychology
- WILLFORD, JOHN, Molecular Biology
- WILLIAMS, DAVID G., Botany, Ecosystem Science and Management
- WILLIAMS, DUANE D., Agricultural and Applied Economics
- WILLIAMS, MIA, School of Counseling, Leadership, Advocacy & Design
- WILLIFORD, JASON, Mathematics and Statistics
- WILSON, MARGARET, Theatre and Dance
- WIMBISH, LAUREL, WySAC
- WINTERS, KATHERINE I., American Heritage Center
- WITZ, PATRICK, Accounting and Finance
- WODAHL, ERIC, Criminal Justice
- WOFFORD, TERRI, Wyoming Institute for Disabilities (WIND)
- WOODS, TONJA M., Pharmacy
- WRIGHT, CAMERON H.G., Electrical and Computer Engineering
- WRIGHT, LOU ANNE, Theatre and Dance
- WU, CHI-CHEN, Music
- WULFF, SHAUN S., Mathematics and Statistics
- XU, CHEN, WyGISC, Geospatial Information Science and Technology
- XU, XIN (SHAWN), Accounting and Finance
- YEUNG, MAN-CHUNG, Mathematics and Statistics
- YIN, SHUNDE, Petroleum Engineering
- YOCOM, DOROTHY JEAN, School of Counseling, Leadership, Advocacy & Design
- YOON, SUKYUNG, Social Work
- YOUNG, SUZANNE, School of Counseling, Leadership, Advocacy & Design
- ZHANG, CHENGYI (CHARLIE), Construction Management
- ZHANG, TENG (TIM), Accounting and Finance
- ZHANG, XIANG, Mechanical Engineering
- ZHANG, YAN, Modern and Classical Languages
- ZHANG, ZHAOJIE, Zoology and Physiology
- ZHENG, KENNETH W., Accounting and Finance
- ZHONG, PING, Mathematics and Statistics
- ZHOU, JING, Chemistry
- ZHU, JIANTING (JULIAN), Civil and Architectural Engineering
- ZHU, MENGQIANG, Ecosystem Science and Management
- ZHU, QIN (ARTHUR), Kinesiology and Health
- ZIBRAK, ARIELLE, English
- ZLATKOVIC, MILAN, Civil and Architectural Engineering
- ZOOK, KATRINA, Music

Index

A	Arts and Sciences, College of.....	144	Classical, Language.....	244
Absence, Class	Aims and Objectives.....	144	Classification, Students by Year.....	41
Academic Adviser	Concurrent Majors.....	147	Club Sports	66
Academic Affairs, Division of.....	Core Requirements.....	146	College and Major, Choice of.....	41
Academic Dishonesty.....	Courses Taken for S/U.....	146	College Level Examination Prep (CLEP).....	31
Academic Majors	Dual Degrees	147	College, Major or Adviser, Change of.....	41
Academic Officers.....	Internships	148	College of Agriculture and Natural Resources....	88
Academic Probation/Suspension.....	Majors	144	College of Arts and Sciences.....	144
Academic Renewal.....	Minors	145	College of Business	337
Academic Services (SEO).....	Preprofessional Studies.....	147	College of Education	368
Academic Transcripts.....	Transfer Students/Credits.....	146	College of Engineering and Applied Science....	412
Accounting and Finance Department.....	Assessment	54	College of Health Sciences	470
Accreditation, University.....	Associated Students of the		College of Law	538
Administration, University.....	University of Wyoming (ASUW).....	70	Commencement Exercises	55
Administrative Officers	Astronomy and Astrophysics.....	290	Commonly Used Terms	83
Admission, Adult Nontraditional	Athletics, Intercollegiate.....	572	Communication Disorders	472
Admission, Exceptions.....	Atmospheric Science Department.....	414	Communication and Journalism Dept.....	190
Admission, GED.....	Attendance	42	Communication Statement.....	7
Admission, Graduate.....	Auditing a Course	41	Computer Engineering.....	445
Admission, High School Guest.....	AWARE Program.....	68	Computer Science Department.....	437
Admission, International Students	B		Construction Management.....	434
Admission, Law	Bachelor of Applied Sciences Program.....	553	Concurrent Major.....	54
Admissions Office.....	Benefit Package, Student.....	28	Counseling Center.....	68
Admission, Pharmacy.....	Bicycle Regulations	72	Counselor Education.....	394
Admission, Policies and Procedures.....	Bioengineering	452	Course Credits	85
Admission, Readmission.....	Biology	180	Course Levels	85
Admission, Undergraduate.....	Board of Trustee Retirement Benefit	21	Course Prefixes and Description Index.....	86
Admission, Undergraduate Transfer Students....	Bookstore	72	Course Withdrawal	40, 84
Admission, WYDENT.....	Botany Department	180	Courses of Instruction	85
Admission, Wyoming Senior Citizens.....	Branding Iron, The	70, 191	Courses, Repeat	36
Admission, WWAMI.....	Business, College of.....	337	Cowboy Parents	73
Advanced Placement.....	Acceptance of Transfer Credit	338	Creative Writing	178
Advising, Career, Exploratory Studies.....	Accreditation	337	Credit, Examination	29, 43
Adviser, Academic	Advanced Business Standing.....	338	Credit, Graduate Credit for Seniors.....	41
Advisers, Change of.....	Bachelor's Degree Requirements.....	337	Credit, Hour Load.....	41
African American and Diaspora Studies	Business Student Intern Program.....	341	Credit, Military Service	35
Agricultural Communications Curriculum.....	Cooperative Programs	341	Credit, Portfolio	33
Agricultural and Applied Economics.....	Majors	337	Credit, Transfer	33
Agricultural Education.....	Business Administration.....	341	Criminal Justice Department.....	197
Agriculture, College of.....	C		Culture, Gender and Social Justice, School of...148	
General Agriculture Curriculum.....	Campus WyoOne ID Cards	29	Curriculum and Instruction.....	383
General Information.....	Calendar, University	2	D	
Majors	Campus Activities Center.....	70	Dance	321
Agroecology	Campus Police	72	Dean of Students Office	67
Air Force R.O.T.C.....	Campus Recreation	66	Dental Hygiene	471
Alumni Association	Campus Safety	23	Decision Sciences	356
American Heritage Center.....	Centennial Complex	77	Dining Services	69
American Studies & History Department.....	Change of College, Major or Adviser.....	41	Disability Support Services	67
Animal Science Department.....	Change of Registration.....	40	Discrimination and Harassment	7
Anthropology Museum.....	Chemical Engineering Department	417	Dishonesty, Academic.....	42
Anthropology Department	Chemistry Department	185	Distance Credit Programs	73
Architectural Engineering.....	Child Development.....	116	Division of Information Technology	78
Armed Forces Services.....	Chinese	246	Division of Academic Affairs	63
Army R.O.T.C.....	Civil and Architectural		Division of Student Affairs	66
Art and Art History Department.....	Engineering Department.....	423	Dropping Courses.....	40
Art Museum	Class Attendance	42	Dual Degrees	55

E	Graduate Student Regulations and Policies41	M	Majors, Academic.....15
Early Childhood..... 120, 389	Graduation Fee48, 55	Management and Marketing Department..... 355	Marketing 355
Economics Department..... 349	Graduation with Honors..... 56	Mathematics and Statistics Department.....254	Mathematics Placement Exam.....255
Ecosystem Science and Management.....115	Graduation Requirements 53	McNair Scholars Program (SEO) 65	Measles, Mumps and Rubella Immunization..... 22
Education Abroad..... 63	Greek 249	Mechanical Engineering Department..... 453	Medical Education, Division of.....488
Education, College of.....368	H	Medical Laboratory Science 512	Microbiology 128
Accreditation 368	Health Sciences, College of..... 470	Nursing, School of.....497	Mid-Term Grades 37
Curriculum and Instruction	Communication Disorders, Division of..... 472	Pharmacy, School of.....502	Military Science 549
Graduate Programs..... 383	Kinesiology and Health, Division of.....482	Social Work, Division of516	Military Service Credit..... 35
Majors 368	Medical Education, Division of.....488	Health Service, Student..... 67	Mission Statement.....7
School of Counseling, Leadership, Advocacy	Medical Laboratory Science..... 512	High School Guest.....18	Modern and Classical Languages
and Design 392	Nursing, School of.....497	History 229	Department244
School of Teacher Education..... 387	Pharmacy, School of.....502	History Department, American Studies and ...229	Molecular Biology Department..... 130
Electrical and Computer Engineering	Social Work, Division of516	Honor Roll 38	Multicultural Affairs Office 70
Department 445	Health Service, Student..... 67	Honor Societies and Programs 12	Multicultural Resource Center..... 70
Engineering and Applied Science, College of.....412	High School Guest.....18	Honors Graduation..... 56	Music 267
Accreditation 412	History 229	Honors College, UW 580	Music Fees 267
Engineering Science.....413	History Department, American Studies and ...229	Human Medicine..... 490	N
Majors 412	Honor Roll 38	I	National Guard Benefit..... 27
English Department.....204	Honor Societies and Programs 12	ID Cards 29	National Park Service Research Center 81
English as a Second Language.....585	Honors Graduation..... 56	Immunizations (MMR)..... 22	National Student Exchange..... 64
English Language Center64, 585	Honors College, UW 580	Incompletes 37	Native American and Indigenous Studies
Enrollment Management..... 63	Human Medicine..... 490	Information Management..... 345	Program151
Entomology 106	J, K	Information Technology, Division of..... 78	Non-Discrimination Statement.....7
Environment and Natural Resource	Japanese 249	Insurance, Student 28	Non-Traditional Adult Student.....18
Helga Otto Haub School of..... 555	Kinesiology and Health 482	Intercollegiate Athletics, Division of 572	Nursing, School of..... 492
Environmental Systems Science..... 565	L	International Baccalaureate (IB)30, 32	Accreditation and Membership..... 492
Extension, University of Wyoming..... 73	Land Surveying 436	International Studies.....296	Curriculum 492
F	Language 250	International Student Admission18	Programs of Study 495
Faculty Index 586	Languages (Modern and Classical	International Students and Scholars..... 64	O
Family and Consumer Sciences115	Department244	Intramural Sports Program..... 66	Office of the Registrar..... 63
Fees, Tuition and 28	Latin 250	J, K	Office of Scholarships and Financial Aid..... 63
FERPA9	Latina/o Studies 159	Japanese 249	Officers, Academic and Administrative5
Finance 341	Law, College of 538	Kinesiology and Health 482	Officers, University.....5
Final Grades 37	Accreditation 538	L	Open Recreation..... 66
Financial Aid 24	Admission Requirements and	Land Surveying 436	Outdoor Program..... 67
Food Science 102	Procedures20, 539	Language 250	Outdoor Recreation and Tourism
Fraternities/Sororities 70	Joint Degree Program..... 541	Languages (Modern and Classical	Management 565
French 247	Prelegal Curriculum 538	Department244	Owen Wister Review, The 70, 191
Freshman Admission.....17	LCCC Courses (offered at UW) 85	Latin 250	P
Frontiers Magazine 191	Learning, Design, and Technology..... 405	Latina/o Studies 159	Pathobiology141
G	Libraries, University.....76	Law, College of 538	Petroleum Engineering..... 461
GED Applicants.....18	Life Sciences Program..... 253	Accreditation 538	Pharmacy, School of 502
Gender and Women's Studies Department..... 154	M	Admission Requirements and	Accreditation 504
Geography Program 212	Majors, Academic.....15	Procedures20, 539	Admission21, 503
Geological Museum 79	Management and Marketing Department..... 355	Joint Degree Program..... 541	Curriculum 506
Geology and Geophysics Department..... 218	Marketing 355	Prelegal Curriculum 538	Philosophy 282
Geospatial Information Science and Technology	Mathematics and Statistics Department.....254	LCC Courses (offered at UW) 85	Philosophy and Religious
Program 567	Mathematics Placement Exam.....255	Learning, Design, and Technology..... 405	Studies Department 282
German 248	McNair Scholars Program (SEO) 65	Library Sciences 408	Physics Department.....290
Global Engagement Office..... 63	Mechanical Engineering Department..... 453	Libraries, University.....76	Physiology, Zoology and..... 329
Grade Point Average, Cumulative.....36, 84	Medical Education, Division of.....488	Life Sciences Program..... 253	Plant Sciences Department 135
Grade Point Average, Semester.....36, 84	Medical Laboratory Science 512		
Grade Reports, End of Semester 37	Nursing, School of.....497		
Grade Reports, Midterm..... 37	Pharmacy, School of.....502		
Grading System 36	Social Work, Division of516		
Graduate Credit for Seniors41	Health Service, Student..... 67		
Graduate Admission.....19	High School Guest.....18		
Graduate Education..... 65	History 229		

Police Department.....	72	Special Education.....	409	W-Z	
Political Science Department.....	306	Statistical Consulting Center.....	80	WWAMI	20, 489
Politics, Public Affairs, and		Statistics Department, Mathematics and.....	254	Western Interstate Commission for	
International Studies, School of.....	295	STOP Violence Program.....	67	Higher Education (WICHE).....	82
Prefixes, Course.....	86	Store, University.....	72	Wilhelm G. Solheim Mycological Herbarium ...	81
Pre dental Study	147	Student Affairs, Division of.....	66	William D. Ruckelshaus Institute of	
Premedical Study.....	147	Student Benefit Package.....	28	Environment and Natural Resources.....	79
Pre-Law Concentration.....	147	Student Classification.....	41	Withdrawal, Course.....	40, 84
Preoptometry Study.....	147	Student Conduct.....	67	Withdrawal, University.....	40, 84
Preparatory Courses.....	85	Student Educational Opportunity.....	65	WyoOne Campus ID Cards	29
Preprofessional A&S.....	147	Student Health Service.....	67	Wyoming Community College Articulation	
Privacy Rights of Students.....	9	Student ID Cards.....	29	Agreement	34
Probation, Academic.....	38	Student Insurance.....	28	Wyoming Cooperative Fish and Wildlife	
Psychology Department.....	315	Student Legal Services	67	Research Unit	82
Publications, Student.....	70, 191	Student Media Office.....	70	Wyoming Geographic Information	
		Student Publications	70, 191	Science Center.....	79
R		Student Rights of Privacy.....	9	Wyoming Institute for Disabilities	
Rangeland Ecology and		Student Success Services (SEO).....	65	(WIND)	521
Watershed Management	119	S/U Grading	37	Wyoming Public Media.....	75
Readmission	21	Summer Session Tuition	28	Wyoming Public Radio	75
Red Buttes Biological Research Facility.....	81	Survey & Analysis Center, Wyoming.....	80	Wyoming State Veterinary Laboratory	82
Refunds	29	Suspension, Academic.....	38	Wyoming Survey & Analysis Center	80
Refund Schedule.....	29	Suspension, Financial Aid	25	Wyoming Union	68
Regional Centers.....	74				
Registrar, Office of the.....	63	T		Zoology and Physiology Department	329
Registration, Change of.....	40	Technical Education.....	376		
Registration Procedures.....	40	Testing Center	65		
Reinstatement	39	Theatre and Dance Department	321		
Release of Information	9	Transcripts, Academic.....	38		
Religious Studies	282	Transfer Credit	33		
Renewable Resources.....	107	Transfer Students.....	18, 33		
Repeating Courses.....	45	Transfer Success Center	63		
Reports, Grade	37	Trustees of the University.....	5		
Research and Study, Facilities for	76	Tuition and Fees	28		
Reserve Officers Training Corps (ROTC).....	547	Tuition and Fees Refunds/Cancellations.....	29		
Residence Halls	68				
Residence Life and Dining Services	68	U, V			
Residency Classification Regulations	21	Undergraduate Admission	17		
Rocky Mountain Herbarium.....	81	Undergraduate Education.....	64		
		Union, Wyoming.....	68		
S		University Apartments	69		
Satisfactory/Unsatisfactory Grading.....	37	University Store	72		
Scholarship Standards	24, 53	University Catalogs	4		
School of Culture, Gender and Social Justice.....	148	University Calendar.....	2		
School of Energy Resources.....	576	University Counseling Center.....	68		
School of Environment		University Disability Support Services (SEO).....	67		
and Natural Resources.....	555	University Honors College	580		
School of Nursing.....	492	University Officers.....	5		
School of Pharmacy.....	502	University Police Department	72		
School of Politics, Public Affairs, and		University Studies Program 2015.....	57		
International Studies.....	295	University Testing Center	65		
Scholarships and Financial Aid, Office of.....	63	University of Wyoming-National Park Service			
Science and Mathematics Teaching Center.....	532	Research Center.....	81		
Second Bachelor's Degree Requirements	18, 54	University Withdrawal.....	40, 84		
Secondary Education.....	390	University of Wyoming Alumni Association.....	72		
Semester Hour Requirements.....	53	University of Wyoming at Casper.....	73		
Senior Citizen Policy	20	UWYO	582		
Social Work	516	Veterans Educational Benefits.....	27		
Sociology Department.....	201	Veterans Services Center	71		
Soil Science	113	Veterinary Science Department.....	140		
Sororities/Fraternities	70	Visual and Literary Arts Department	169		
Spanish	251	Volunteer Services.....	70		