ENGINEERING
APPLIED SCIENCE

Parent Handbook
2009

Welcome from Dr. Richard Schmidt
Associate Dean

Welcome to UW and thank you for entrusting your son or daughter to us. I too am a parent of college-age children and share many of your concerns. This is an exciting and stressful time for everyone. First of all, please be aware that the College of Engineering and Applied Science is dedicated to excellence in undergraduate education. That means our top priority is to deliver a challenging, up-to-date education to your son or daughter. Each of our students is important to us. Nevertheless, those words alone are not likely enough to satisfy anyone's concerns. That's one reason for this handbook.

This handbook addresses some of the legitimate concerns you have about policies and student life. It also provides direction on where to find answers for other questions that may come up.

The tradition of excellence in undergraduate education in the College of Engineering and Applied Science is fostered by our talented and dedicated faculty and staff. Our resources and technology are cutting-edge, and we try to ensure that our students have every tool and opportunity needed to succeed in a demanding technical profession.

Please feel free to contact any of the frontline personnel in the College if you have a question or concern. Stay in touch with your students, but please try to give them the freedom needed to grow as young adults. They are in good hands.

Richard J. Schmidt
Associate Dean

Frontline Personnel

Dean's Office, Rm 2085 307-766-4253
Dr. Rob Ettema, Dean
Dr. Richard Schmidt, Associate Dean
Dr. Andrew Hansen, Associate Dean
Lynn Durkee, Executive Business Manager
Fred Chapp, Receptionist

Center for Student Services
Susan McCormack, Rm 2079B, 307-766-4254
Lindy Johnson, Rm 2079C, 307-766-4215
Ryan Kobbe, Rm 2080, 307-766-4216

Atmospheric Science, Rm 6034 307-766-3245
Dr. Al Rodi, Department Head
Rimvyda Dreher, Office Manager

Chemical & Petroleum Engineering, Rm 4055
307-766-2500
Dr. Andrew Hansen, Department Head
Heather Warren, Student Services

Civil & Architectural Engineering, Rm 3074
307-766-5255
Dr. David Bagley, Department Head
Sherry Johnson, Student Services

Electrical & Computer Engineering,
Rm 5068 307-766-2240
Dr. Mark Balas, Department Head
Margaret Paul, Student Services

Mechanical Engineering, Rm 2052
307-766-2122
Dr. Paul Dellenback, Department Head
Gale Bandsma, Student Services

Computer Science, Rm 4083 307-766-5190
Dr. Jerry Hamann, Department Head

Engineering and Applied Science at the University of Wyoming

A well-balanced offering of math, science, technical, and cultural courses make up the degree programs in the College of Engineering and Applied Science. The undergraduate engineering programs of study listed below are or will be accredited by the national Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (EAC/ABET). The accreditation of undergraduate programs is important because graduating from an accredited program is one step in becoming a registered professional engineer. The Computer Science program is accredited by the Computing Accreditation Commission (CAC/ABET). More information about ABET can be found at www.abet.org.

BACHELOR OF SCIENCE
Architectural Engineering (ARE)
Chemical Engineering (CHE)
Civil Engineering (CVLE)
Computer Engineering (CPEN)
Computer Science (COSC)
Earth Systems Science (ESS)
Electrical Engineering (EE)
Energy Systems Engineering (ESE)
Mechanical Engineering (ME)
Petroleum Engineering (PETE)

MASTER OF SCIENCE
Atmospheric Science
Chemical Engineering
Civil Engineering
Civil Engineering/Water Resources
Computer Science
Electrical Engineering
Environmental Engineering
Mechanical Engineering
Petroleum Engineering

DOCTOR OF PHILOSOPHY
Atmospheric Science
Chemical Engineering
Civil Engineering
Computer Science
Electrical Engineering
Mechanical Engineering
Petroleum Engineering

Fundamentals of Engineering Exam (FE)

The Fundamentals of Engineering Exam, more commonly known as the FE exam, is conducted for seniors twice yearly at the University of Wyoming. The exam consists of two parts: 1) a review of fundamental engineering topics including basic engineering sciences, mathematics, chemistry, physics, and economics; and 2) a discipline specific section for Civil, Chemical, Electrical, and Mechanical. For other majors, this section becomes a continuation of Part 1. Review sessions are conducted by faculty members. **Engineering students must complete the exam within one year prior to their expected graduation.** Passing the FE exam enables an engineering graduate to be an "Engineer in Training." After successful completion of the FE exam and a minimum of four years of engineering practice under a licensed professional engineer, graduates may elect to take the professional licensing exam to become a Registered Professional Engineer (PE).

Financial Assistance & Scholarships

FINANCIAL ASSISTANCE

University financial assistance awards are made solely on the basis of the student's or family's financial position. These awards consist of low-interest loans, grants, or part-time employment. Special application forms are necessary in order to be considered for this type of aid. Details and applications can be obtained at the Financial Aid Office in Knight Hall or online at: http://uwadmnweb.uwyo.edu/SFA.

SCHOLARSHIPS

In response to the Hathaway and Peak Scholarship programs and stiffer competition for top-quality students from other universities, the University of Wyoming has totally reformed its scholarship program. The University is now awarding more and bigger scholarships than ever before. These awards are made primarily on the basis of academic performance. Students who receive scholarships must meet certain performance requirements, which vary according to the scholarship, in order to remain eligible for support.

Scholarships offered by the College of Engineering and Applied Science will help pay the overall award made to our students through the Office of Admissions. We will not normally award scholarships as supplements to institutional awards.

The University of Wyoming and the College no longer require students to apply for scholarships awarded through our endowments. All students are automatically considered for support. Grants and loans that depend on financial need require that the FAFSA be completed. You can learn more about the Hathaway and PEAK programs at: http://www.uwyo.edu/scholarships/.

Computers

The Engineering Science Interactive Graphics (ESIG) computer laboratories are available to all students in the College. The labs include workstations, Windows-based PCs, laser printers, plotters, and other equipment. A user-ID and password are necessary to use the facilities. Lab hours vary, but generally the labs are open 7 days a week during the semester.

Each academic department maintains at least one computing facility for its majors. These labs usually support software packages that are not available on the ESIG computers.

While the College of Engineering and Applied Science does not require that a student have his or her own computer, it is becoming more common for students to bring a computer to the University. Certain software that is used in classes is available at no cost or can be purchased in the UW bookstore. It is strongly suggested that some sort of system (cable and lock) be used to secure the computer to the built-in desk in the residence hall rooms or some heavy desk that cannot be easily moved. The College has a purchase recommendation for those who would like to bring their own computer to campus. Please go to http://wwweng.uwyo.edu/info/computer.html.

Calculators

The College does not require a specific brand or model of calculator. However, engineering and math students tend to use Texas Instrument (TI) calculators. A number of different models are sold in the UW Bookstore or any number of stores in town. A technical-type calculator with engineering functions such as trig functions (sin, cos, tan), logarithmic functions (ln, log, exp, etc.) and vector operations (dot product, cross product, etc.) is a necessity. Graphing capability is also very useful. Programmable calculators are not necessary, but this capability may be of interest.

Graduation Requirements

CURRICULAR REQUIREMENTS

Each major in the College has a specified curriculum that must be followed for graduation. Check sheets for each major are available either from the Dean's Office or from the specific department of interest; several departments have their checksheets online. All substitutions and transfer equivalencies must be approved by the academic advisor, the department, and the Dean's Office.

UNIVERSITY STUDIES

The University Studies Program 2003 (USP 2003) is UW's general education requirement and must be completed in order to graduate. The USP is not a separate degree program. It is already integrated into each of the College's curricula and is completed through a combination of required and elective courses.

PE ACTIVITY REQUIREMENT

As a part of the USP, all students must complete a one hour, one semester course in physical education. The course, PEAC 1001, involves a combination of health education and physical activities. A variety of varsity and club sports and other on-campus activities may be used as the physical activity portion of this requirement.

MINIMUM GRADE POINT AVERAGES

In order to receive a degree from the College, minimum GPA requirements must be met. First, the student must have at least a 2.0 cumulative GPA on all courses completed at UW. Secondly, the student must also have at least a 2.0 cumulative GPA on all engineering courses completed at UW. Note that transfer work and AP credit do not enter into the computation of a UW grade point average. Mechanical engineering students must maintain at least a 2.0 cumulative GPA on mechanical engineering courses completed at UW. Computer science majors must earn a C or better in all required COSC, MATH, and STAT courses.

MINIMUM UPPER DIVISION HOURS

At least 48 upper-division (junior or senior level) hours, of which at least 30 must be earned at the University of Wyoming, are necessary in order to receive a degree. This includes second bachelors degree students.

THE DEGREE CHECK PROCESS

In order to verify that all necessary courses have been completed for the desired degree, a student must complete a check sheet with his or her advisor. The process should be initiated approximately three semesters before completion of the degree. The check sheet is used to verify that the electronic posting of coursework is accurate. Failure to complete the check sheet in a timely manner may result in difficulties - including a delay in graduating.

Tutoring

Tau Beta Pi (the national engineering honor society) offers free tutoring for basic math, science, and engineering courses including Calculus I, II, III; Differential Equations I, II; Statics, Dynamics, Fluids, Circuits, Mechanics of Materials, Thermodynamics, Chemistry, and Physics. Information regarding these help sessions is readily available to students through the Dean's Office, postings throughout Engineering Hall, and on the College website.

Individual departments in other disciplines, including Computer Science, Math, Physics, Chemistry, and English, also offer free tutoring for specific courses. Details are available through the specific departments.

The Writing Center on campus also offers free assistance to students who experience difficulty in written assignments.

In the event that a student wishes to pay for a private tutor, engineering faculty and staff should be contacted to explore opportunities.

Employment Opportunities

The Center for Student Services (CSS) in the College of Engineering and Applied Science provides a full range of career services. To ensure that our students are well positioned in today's job market, the CSS works to inform, engage, and encourage students to be self-directed in their career planning and development.

By working closely with the Center for Advising and Career Services (CACS), the University's centralized career service center, we are able to provide our students with a wide variety of employment opportunities and services. Through direct contact with employers, we make internships, co-ops, and permanent employmet opportunities regularly available to our students. The CSS, in conjunction with the CACS, provides additional services including career counseling, resume and cover letter help, career events, campus interviews, access to job market, salary information, and more. We continuously strive to recruit and strengthen the College's connection with our coporate partners.

Order of the Engineer

Ethical behavior is an integral part of the engineering profession, and College of Engineering and Applied Science students are expected to maintain the highest standards of honesty and integrity. Students should be aware of UW's policy regarding academic dishonesty, which is discussed in the General Bulletin.

The opportunity to join the Order of the Engineer will be extended to students in the traditional engineering disciplines when they graduate from the College. The organization, which began in the United States in 1970, is a fellowship of engineers who are dedicated to the practice, teaching or administration of their profession. The oath includes the pledge to practice integrity and fair dealing, to uphold the standards of an engineer, and to participate in none but honest enterprises. The Order of the Engineer ceremony includes the traditional ring, which is worn on the little finger of the working hand. The ceremony takes place twice each year in conjunction with graduation. To join the Order, it is necessary to attend the induction ceremony. The ceremony includes an opportunity for our colleagues in the applied sciences (computer science and atmospheric science) to accept the obligation of their profession.

Dates to Remember

We invite you and your family to join us at UW on the following special occasions:

September 25-27, 2009 **Family Weekend**
Parents will receive information detailing activities

October 9-10, 2009 **Homecoming**
The University and the College will schedule many special events.