



## Thinking about Becoming a Petroleum Engineer? Here's What You Might Want To Know About Petroleum Engineering Schools

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Students of petroleum engineering in American universities can expect to be part of a small but elite group on their campuses. Job placement over the past 5 to 10 years has been near 100% in all of these programs, and 2000 salaries for the BS degree averaged about \$56,000 per year.

Most programs offer excellent scholarship opportunities and encourage summer internships. Summer employment in the industry ranges from \$2,000 to \$4,000 per month.

Petroleum engineering majors also carry some of the highest average SAT scores on their campuses, and successful students have interests in mathematics, geosciences, and computer technology. They are creative and active individuals in an exciting, growing industry

### Student Chapters of SPE

The single outstanding factor about being in a university petroleum engineering program is that you are *somebody* there. Twelve schools of petroleum engineering responded to a recent survey, and the singular point made by every one of them was that the students get to know each other and enjoy each other. The U. of Oklahoma put it best: "Students have an enormous amount of support for each other." Like students in most of these programs, "what they like best is the cohesiveness, diversity, and wide range of activities they find in their student chapter of SPE."

At Montana Tech, the students take their student chapter seriously. With 162 undergraduates, they are the second largest petroleum engineering school in the nation, and their student chapter has 100 members—but they're not all petroleum engineering students. In fact, that chapter is the largest student organization of any kind on their campus, and its members have won the SPE Outstanding Student Chapter Award six times in the last nine years—most recently in 1999.

Most of these student chapters meet at least once a month for a technical presentation from an industry representative. (At Texas Tech, the speaker's company usually provides food for the meetings.) Most of them sponsor socials, from monthly picnics or barbecues to the annual freshman welcome and senior farewell dinners at the U. of Tulsa. Most of them are involved in community service projects from Christmas food and clothing drives to Adopt-a-Road or highway projects.

Several have student lounges where students can visit, get help with homework, or catch a nap. Older students often provide mentoring for younger students, and most chapters participate in local Engineering Week activities and the fall convention of the SPE International.

If you go to Marietta College, you can go with the student chapter to a Pittsburgh Penguins game, or you can be part of the school's outstanding Division III athletic teams; at Colorado School of Mines, you'll be near oil and gas fields and geologic formations that are excellent sites for field trips and jobs; Montana Tech will invite you just to enjoy the Rocky Mountains. Students at the U. of Texas take four field trips per year, including one this year to ski in Colorado.

Almost anywhere you go, you'll play golf. Golf tournaments at most schools give students opportunities to meet with industry professionals (that's a good way to find out about jobs) and raise money for scholarships and student chapter expenses. At Texas A&M, the spring golf tournament provides most of the funding for the chapter's activities and contributes to scholarships honoring a former department head and a former classmate.

### Job Placement

Most petroleum engineering programs claim 100% placement of their students over the past five years, and many have placed that many for much longer. Students graduating from these programs in 2001 can expect salaries averaging about \$58,000. The salary range for 2001 is expected to fall between about \$52,000 and \$65,000 for most students.

In addition, salaries may be supplemented with signing or location bonuses. The petroleum industry in general provides some of the largest benefits packages of any business or industry.

Not all petroleum engineering majors earn the average salary, and not all go directly into the industry. Some students decide to attend graduate studies, enter other professions, or pursue other interests after graduation. For the most part, however, students who finish these programs enter the industry

with some of the highest starting salaries of any degree program in the nation.

### Scholarships

Scholarship opportunities in petroleum engineering are intrinsic to most of the programs, with most scholarships ranging from \$500 to \$3,000 per year, depending on the university program. At the U. of Tulsa, students can qualify for full scholarships depending on their performance in the program; Marietta College offers up to ¾ of total tuition, depending on the student’s entering SAT scores.

Louisiana State U. offers up to \$6,600 per year, and the Colorado School of Mines promises that “all accepted students will have their true financial needs met” through scholarship assistance. Texas A&M U. is in the process of revising its scholarship program and developing an endowed scholars program. The U. of Texas offers 75 scholarships per year with a funding total of about \$150,000.

In most cases, students are required to maintain a grade point average of 3.0 in a minimum number of semester hours to maintain the scholarship; at Texas Tech U., they must be members of the student chapter of SPE as well.

Other scholarships are also available through local SPE chapters, SPE International, and other university programs.

### Summer Jobs

Most of the schools encourage students to work during the summer in the industry; Texas A&M U. requires one summer internship before graduation. At the U. of Tulsa, entering freshmen are encouraged to work during the summer after high school graduation with one of seven thriving research consortia in the department; those jobs sometimes continue through at least the following semesters. Students at several universities leave school with three to four summers of experience in jobs that pay from \$2,000 to \$4,000 per month, depending on the student’s technical ability, experience, and other factors.

Most departments know their students personally and take a personal interest in helping to place them in both summer and full-time positions. At Louisiana State U., that begins with 4-day seminars for entering freshmen to teach them how to develop resumes, use Career Center facilities, and survive interviews. At Oklahoma U., seniors are assigned a member of the department’s Advisory Board, who communicates with the students on projects, invites them to visit their offices, and follows the students into the first years of their careers.

Texas A&M U. and Oklahoma U. mail resume books to about 100 companies each year. Most programs work closely with Career Centers, their colleges of engineering, faculty, and industry contacts to help students find jobs.

### Students

Students in university petroleum engineering programs are some of the best and brightest in the nation. Average entering SAT scores in these departments range from 1100 to 1400, with most averaging around 1250. At U. of Missouri–Rolla, entering students average 28 on the ACT; the university is second in the nation to Georgia Tech in entering ACT scores.

Petroleum engineering programs seek students who have strong skills in math, science, and computer. It helps if you are a good communicator—both speaking and writing—and a creative thinker. You’ll be challenged to design the technologies that make this industry work, and all of these skills will be important.

### Schools

**Table 1** gives you a bit more information about the individual schools that responded to this survey. For more information about the schools, the industry, and SPE, you can access the SPE Web page at <http://www.spe.org/>.

### About the Author

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School	Number of Undergrads	Interesting Information
Colorado School of Mines	136	Promises “true financial needs” will be met; close to active oil & gas fields
Louisiana State U	174	Small department; intensive placement training program
Marietta College	70	12 undergrads are seniors, 12 from the Middle East; highly competitive, open athletics
Montana Tech	162	Outstanding SPE student chapter 1996, 1997
Stanford U	none	No undergraduate petroleum engineering, but grad program “Is our main focus and is world class”
Texas A&M U	191	Largest program; ranked #1 by Gourman Report, 1993 and 1996; recently adopted 128-hour curriculum; developing new endowed scholarship program in addition to current scholarships
Texas A&M U—Kingsville	40	Emphasizes natural gas and environmental engineering
Texas Tech U	90	Growing department; strong assistance with placement program
U of Missouri–Rolla	30	Scholarships available to “every eligible student”; high ACT scores of entering students ensure challenging opportunities for thinking and learning
U of Oklahoma	109	Advisory Board supports engineers entering profession from program
U of Texas	183	110 undergrads in Petroleum Engineering; 35 in Energy & Mineral Resources
U of Tulsa	120	Only private school petroleum engineering program; no engineering class more than 45 students; close student involvement with research programs