College of Engineering Profile: 1. Degrees Offered

Bachelor's

☐ B.A. ☑ B.S. ☐ S.B.

Master's

☐ M.A. with thesis ☐ M.A. without thesis, but with project or report

☑ M.S. with thesis ☑ M.S. without thesis, but with project or report

☐ S.M. ☐ M.Eng.

Doctoral

☑ Ph. D.

☐ D. Eng.

☐ Sc.D.

Does your school award computer science degrees outside of the college/school of engineering at the following degree levels?

Bachelor's: ☑

Master's: ☑

Doctoral: ☑

College of Engineering Profile: 2. Degree Requirements

Bachelor's Degree Requirements

All BS degrees in engineering require that students satisfy the ABET Engineering Accreditation Commission requirements for such degrees. The total hours required are as follows:BSCE-136, BSChE-130, BSEE-132, BSIE-133, BSME-129, BSSE-130, BSEP-129 or 130. The BSET requires 133 credit hours & meets ABET Technology Accreditation Commission requirements.
The BS Surveying requires 130
credits & meets the ABET Related Accreditation Commission requirements.

Master's Degree Requirements

Masters with Thesis--GPA requirement: 3.00 on a 4.00 scale. Credit hours required for degree: 30. (Credit hours differ by Department, 30 is an average.) Half of the course work must be done at NMSU. Residency requirement: 2 regular semesters or 1 regular semester and 2 six-week summer sessions or 4 six-week summer sessions. Thesis may be completed in absentia. Thesis in absentia may be approved after 24 credits have been completed. Must be approved by student's advisor and department head. Once thesis hours are taken, the student must be continuously enrolled in the regular semesters until graduation. Must submit petition to Graduate Dean.

Doctoral Degree Requirements

GPA requirement: 3.00 on a 4.00 scale. Credit hours required for degree: 80. (Credit hours required differ by department-80 is an average for Doctorate.) Masters degree in engineering not required. Residency requirement: 2 regular semesters. Dissertation is expected to require one year, residence may not be required during dissertation. Research tools (not necessarily a foreign language) are required.

College of Engineering Profile: 3. Engineering Departments

Engineering Department(s)	Degree Granting Level	Department Chair	Discipline[1]	Footnote
Aerospace Engineering	Both	Ian Leslie	Aerospace Engineering	No
Chemical Engineering	Both	David Rockstraw	Chemical Engineering	No
Civil Engineering	Both	Peter Martin	Civil Engineering	No
Computer Science	Both	Son Tran	Computer Science (outside engineering)[1]	No
Electrical and Computer Engineering	Both	Satish Ranade	Electrical Engineering	No
Engineering Physics	Undergraduate	Stefan Zollner	Engr. Science and Engr. Physics	No
Industrial Engineering	Both	Edward Pines	Industrial/Manufacturing/Systems Engineering	No

Mechanical Engineering	Both	Ian Leslie	Mechanical Engineering	No
Surveying Engineering/ET	Undergraduate	Jeffrey Beasley	Other Engineering Disciplines	No
Unclassified Engineering	Undergraduate	Sonya Cooper	Other Engineering Disciplines	No

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 4. Bachelor's Degree Programs

Engineering Department(s)	Bachelor's Degree Program(s)	Discipline(s)
Chemical Engineering	Chemical Engineering (B.S.)	Chemical Engineering
Civil Engineering	Civil Engineering (B.S.)	Civil Engineering
Computer Science	Computer Science (B.S)	Computer Science (outside engineering)[1]
Electrical and Computer Engineering	Electrical Engineering (B.S.)	Electrical Engineering
Engineering Physics	Engineering Physics (B.S.)	Engr. Science and Engr. Physics
Industrial Engineering	Industrial Engineering (B.S.)	Industrial/Manufacturing/Systems Engineering
Mechanical Engineering	Mechanical Engineering (B.S.)	Mechanical Engineering
Mechanical Engineering	Aerospace Engineering (B.S.)	Aerospace Engineering
Surveying Engineering/ET	Surveying Engineering (B.S.)	Other Engineering Disciplines
Unclassified Engineering	Unclassified Engineering	Other Engineering Disciplines

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 5. Masters Degree Programs

Engineering Department(s)	Master's Degree Program(s)	Discipline(s)
Chemical Engineering	Chemical Engineering (M.S.)	Chemical Engineering
Civil Engineering	Civil Engineering (M.S.)	Civil Engineering
Civil Engineering	Environmental Engineering (M.S.)	Environmental Engineering
Computer Science	Computer Science (M.S)	Computer Science (outside engineering)[1]
Electrical and Computer Engineering	Electrical Engineering (M.S.)	Electrical Engineering
Industrial Engineering	Industrial Engineering (M.S.)	Industrial/Manufacturing/Systems Engineering
Mechanical Engineering	Mechanical Engineering (M.S.)	Mechanical Engineering
Mechanical Engineering	Aerospace Engineering (M.S.)	Aerospace Engineering

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 6. Doctoral Degree Programs

Engineering Department(s)	Doctor's Degree Program(s)	Discipline(s)
Chemical Engineering	Chemical Engineering (Ph.D.)	Chemical Engineering
Civil Engineering	Civil Engineering (Ph.D.)	Civil Engineering
Computer Science	Computer Science (Ph.D)	Computer Science (outside engineering)[1]
Electrical and Computer Engineering	Electrical Engineering (Ph.D.)	Electrical Engineering
Industrial Engineering	Industrial Engineering (Ph.D.)	Industrial/Manufacturing/Systems Engineering
Mechanical Engineering	Mechanical Engineering (Ph.D.)	Mechanical Engineering

Mechanical Engineering	Aerospace Engineering (Ph.D.)	Aerospace Engineering

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 7. Research Centers

Ctr/Lb: Bridge Evaluation Center
Disc.:[1] Civil Engineering
Class: INDEPT
Head: David Jauregui

Ctr/Lb: Carlsbad Environmental Monitoring & Research Center
Disc.:[1] Nuclear Engineering
Class: INCOLL
Head: Martha Mitchell

Ctr/Lb: Engineering Research Center
Disc.:[1] Engineering (General)
Class: INCOLL
Head: Martha Mitchell

Ctr/Lb: Institute for Energy and The Environment
Disc.:[1] Environmental Engineering
Class: INDEPT
Head: Abbas Ghassemi

Ctr/Lb: Manufacturing Technology & Engineering Center
Disc.:[1] Industrial/Manufacturing/Systems Engineering
Class: INCOLL
Head: Anthony Hyde

Ctr/Lb: New Mexico Alliance for Minority Participation
Disc.:[1] Engineering (General)
Class: INDEPT
Head: Ricardo Jacquez

Ctr/Lb: Southwest Technology Development Institute
Disc.:[1] Other Engineering Disciplines
Class: INDEPT
Head: Satish Ranade

Ctr/Lb: Waste-Management Education & Research Consortium
Disc.:[1] Environmental Engineering
Class: INDEPT
Head: Abbas Ghassemi

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 8. Teaching, Tenure Track Engineering Faculty: Full Professors

American Indian or Alaska Native: A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
Asian: A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
Black or African American: A person having origins in any of the black racial groups of Africa. Terms such as "Haitian" or "Negro" can be used in addition to "Black or African American."
Hispanic or Latino: A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, "Spanish origin," can be used in addition to "Hispanic or Latino."
Native Hawaiian or Other Pacific Islander: A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
White: A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
Nonresident alien: A person who is not a citizen or a national of the United States and who is in this country on a visa or temporary basis and does not have the right to remain indefinitely.
Two or more: Any person who reported themselves as belonging to more than one of the race categories. These individuals should only be counted in this field and not any of the race categories.

Hispanic/Latino includes individuals of any race who identify as Hispanic or Latino. The five race categories include only persons who reported one of those fields as their sole race and did not report Hispanic/Latino ethnicity. Nonresident aliens should not be included in any of the race or ethnicity fields. Please report nonresident aliens in the "Unknown" field.

Canadian institutions should report all faculty under Unknown

Further Documentation

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Chemical Engineering	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	No
Civil Engineering	0	0	1	0	0	0	2	0	0	0	0	0	2	1	0	0	6	No
Computer Science[1]	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	3	No
Electrical and Computer Engineering	0	0	2	0	0	0	3	0	0	0	0	0	3	0	0	0	8	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Industrial Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Mechanical Engineering	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	No
Surveying Engineering/ET	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0	0	6	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:			3				7						11	2			23	

Last Year's Totals

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Chemical Engineering	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	2	No
Civil Engineering	0	0	1	0	0	0	2	0	0	0	0	0	2	1	0	0	6	No
Computer Science[1]	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	3	No
Electrical and Computer Engineering	0	0	2	0	0	0	3	0	0	0	0	0	4	0	0	0	9	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Industrial Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Mechanical Engineering	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	No
Surveying Engineering/ET	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:			3				7						9	1			20	

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 9. Teaching, Tenure Track Engineering Faculty: Associate Professors

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	No
Chemical Engineering	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	2	No
Civil Engineering	0	0	0	1	0	0	0	0	1	0	0	0	2	0	0	0	4	No
Computer Science[1]	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	No
Electrical and Computer Engineering	0	0	1	0	0	0	5	0	0	0	0	0	1	0	0	0	7	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Industrial Engineering	0	0	0	1	0	0	1	0	0	0	0	0	2	0	0	0	4	No
Mechanical Engineering	0	0	1	0	0	0	3	0	0	0	0	0	4	0	0	0	8	No
Surveying Engineering/ET	0	0	0	0	0	0	1	0	0	0	0	0	2	0	0	0	3	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:			2	2			12	1	1				12				30	

Last Year's Totals

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	No
Chemical Engineering	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Civil Engineering	0	0	0	1	0	0	0	0	1	0	0	0	2	0	0	0	4	No
Computer Science[1]	0	0	0	0	0	0	1	0	0	0	0	0	1	1	0	0	3	No
Electrical and Computer Engineering	0	0	1	0	0	0	5	0	0	0	0	0	2	1	0	0	9	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Industrial Engineering	0	0	0	1	0	0	0	0	0	0	0	0	2	0	0	0	3	No
Mechanical Engineering	0	0	1	0	0	0	3	0	0	0	0	0	5	0	0	0	9	No
Surveying Engineering/ET	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:			2	2			9		1				14	1			29	

[1]

The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 10. Teaching, Tenure Track Engineering Faculty: Assistant Professors

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	2	0	0	0	0	0	1	0	0	0	3	No
Chemical Engineering	0	0	1	1	0	0	0	0	0	0	0	0	2	1	0	0	5	No
Civil Engineering	1	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	4	No
Computer Science[1]	0	0	0	0	0	0	3	1	0	0	0	0	1	0	0	0	5	No
Electrical and Computer Engineering	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Industrial Engineering	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	2	No
Mechanical Engineering	0	1	0	0	0	0	1	0	0	0	0	0	2	0	0	0	4	No
Surveying Engineering/ET	0	0	2	1	0	0	0	0	0	0	0	0	4	0	0	0	7	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:	1	1	4	2			5						10	4			27	

Last Year's Totals

Engineering Department(s)	Unknown		Hispanic		American Indian		Asian		Black		Pacific Islander		White		Two or more		Total	FTN
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
Aerospace Engineering	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	3	No
Chemical Engineering	2	0	0	1	0	0	0	1	0	0	0	0	1	1	0	0	6	No
Civil Engineering	0	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	3	No
Computer Science[1]	1	0	0	1	0	0	3	1	0	0	0	0	0	0	0	0	6	No
Electrical and Computer Engineering	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3	No
Engineering Physics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
Industrial Engineering	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	3	No
Mechanical Engineering	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	No
Surveying Engineering/ET	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	No
Unclassified Engineering	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		No
TOTAL:	3	1	1	1			8	1					3	3			21	

[1]The discipline "Computer Science (outside engineering)" is for computer science

information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 11. Teaching, Non-Tenure Track Engineering Personnel

Engineering Department(s)	FT Instr. & Other Teach. Personnel	PT Instr. & Other Teach. Personnel	Total Personnel	FTE of all PT Teach. Personnel	Footnote
Aerospace Engineering	0	0		0.00	No
Chemical Engineering	0	5	5	0.67	No
Civil Engineering	0	0		0.00	No
Computer Science[1]	0	1	1	1.00	No
Electrical and Computer Engineering	2	0	2	0.75	No
Engineering Physics	2	1	3	2.00	No
Industrial Engineering	0	0		0.00	No
Mechanical Engineering	0	2	2	0.50	No
Surveying Engineering/ET	1	5	6	2.00	No
Unclassified Engineering	0	0		0.00	No
Totals:	**5**	**13**	**18**	**5.92**	

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

Last Year's Totals

Engineering Department(s)	FT Instr. & Other Teach. Personnel	PT Instr. & Other Teach. Personnel	Total Personnel	FTE of all PT Teach. Personnel	Footnote
Aerospace Engineering	0	1	1	0.25	No
Chemical Engineering	0	4	4	0.67	No
Civil Engineering	0	1	1	1.00	No
Computer Science[1]	1	0	1	1.00	No
Electrical and Computer Engineering	2	0	2	1.25	No
Engineering Physics	3	1	4	2.00	No
Industrial Engineering	0	0		0.25	No
Mechanical Engineering	0	4	4	4.00	No
Surveying Engineering/ET	0	0		0.50	No
Unclassified Engineering	0	0		0.00	No
Totals:	**5**	**11**	**16**	**9.92**	

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 12. Non-Teaching Engineering Personnel

Engineering Department(s)	Non-Teach. FT Research Personnel	Non-Teach. PT Research Personnel	Total Personnel	FTE of all PT Non-Teach. Research Personnel	Footnote

Aerospace Engineering	0	0		0.00	No
Chemical Engineering	1	2	3	1.00	No
Civil Engineering	0	0		0.00	No
Computer Science[1]	0	0		0.00	No
Electrical and Computer Engineering	2	0	2	1.50	No
Engineering Physics	4	3	7	5.00	No
Industrial Engineering	0	0		0.00	No
Mechanical Engineering	0	0		0.00	No
Surveying Engineering/ET	0	5	5	1.92	No
Unclassified Engineering	0	0		0.00	No
Totals:	**7**	**10**	**17**	**9.42**	

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

Last Year's Totals

Engineering Department(s)	Non-Teach. FT Research Personnel	Non-Teach. PT Research Personnel	Total Personnel	FTE of all PT Non-Teach. Research Personnel	Footnote
Aerospace Engineering	0	0		0.00	No
Chemical Engineering	1	2	3	1.00	No
Civil Engineering	0	0		0.00	No
Computer Science[1]	0	0		0.00	No
Electrical and Computer Engineering	1	0	1	2.00	No
Engineering Physics	4	2	6	5.00	No
Industrial Engineering	0	0		0.00	No
Mechanical Engineering	1	0	1	0.00	No
Surveying Engineering/ET	0	0		0.00	No
Unclassified Engineering	0	0		0.00	No
Totals:	**7**	**4**	**11**	**8.00**	

[1]The discipline "Computer Science (outside engineering)" is for computer science information that is housed outside the college of engineering. This information will not be added to the engineering total.

College of Engineering Profile: 13. Student Organizations on Campus

Student Organizations on Campus

National Groups

ACM
AIAA
AIChE
ASCE
ASME
Inst. of Industrial Engineers
Institute of Electrical and Electronics Engineers
Mexican American Engineering Societies
Soc. for Automotive Engineering

Soc. of Hispanic Professional Engineers
Soc. of Women Engineers
Local Groups
American Institute of Chemical Engineers-Jeopardy Club
Atomic Aggies
Engineers without Boundaries
NMSU Energy Club

(** indicates an organization added by your school*)

College of Engineering Profile: 14. Honor Societies

Honor Societies
National Groups
Alpha Beta Kappa
Alpha Pi Mu
Chi Epsilon
Eta Kappa Nu
Omega Chi Epsilon
Pi Tau Sigma
Tau Alpha Pi
Tau Beta Pi

(** indicates an organization added by your school*)

College of Engineering Profile: 15. Under-Represented Student Groups

Under-Represented Student Groups
National Groups
American Indian Science and Engineering
Mexican American Engineers & Scientists
National Society of Black Engineers
Society of Hispanic Professional Engineers
Society of Women Engineers
Local Groups

Challenger's Club

(** indicates an organization added by your school*)

College of Engineering Profile: 16. Other Student Support Groups

Other Student Support Programs
Freshman Year Experience Program. All freshman enrolled in Math 190 or above and Engineering 100 will have access to peer mentors, free tutoring, and building a community within engineering.

Students in every program provide free tutoring for freshmen & sophomore students.

The University has an Office for Chicano Programs, Office for American Indian Programs, and Office for Black Programs. These provide tutoring and other assistance.
Finally, the University provides subsidized tutoring for all students.

College of Engineering Profile: 17. Student Design Projects Description

Student Design Projects Description
- New Mexico State University is the home of the International Environmental Design Contest, a government and industry sponsored contest in which student teams solve environmental problems of interest to government and industry.
- Aerospace Engineering students participate in the Design Build Fly (DBR) competition in payload design projects associated with launches at nearby Spaceport America; in the design of experimental facilities for studies in aeroelasticity and flutter; in the design of systems that are tested on the Vomit

Comet, autonomous blimp projects, development of autonomous helicopter G&C systems, and design of aerospace test platforms.
- Civil Engineering students are required to design a hydraulic system (may include a dam and canals), landfill, steel or concrete bridge or building, or water treatment plant. Civil Engineering students participate in the concrete canoe and steel bridge building contests. The student canoe designs have qualified for national competition.
- Chemical Engineering students are required to take a two semester design sequence. In the fall semester, the students take a 4-credit design course covering design principles with individual and group design projects. In the spring semester, Chemical Engineering students take a 2-credit capstone design course and are required to participate in the AICHE national student design competition and individually design a chemical process to meet the requirements of a stated task.
- Students in the Klipsch School of Electrical & Computer Engineering are required to complete a six hour capstone design project over two semesters during their senior year. The projects are initiated by a proposal with some sponsorship from private industry or funded research projects. The projects must include teams of at least three students and require three or more subdisciplines from Electrical & Computer Engineering. The team may include members from other Engineering disciplines.
- Industrial Engineering students participate in an integrated senior design project with Mechanical Engineering and technical writing students where they work with an industry client on a current design issue. Facilities design and simulation classes also require a industry design project.
- Mechanical Engineering (ME) students are required to take two Capstone Design courses where they work with industry to design real-world mechanical and thermal systems. The design course is multidisciplinary and students work in teams on design projects. Design is integrated into the ME curriculum starting from the freshman year to the senior year. ME students participate in the American Society of Mechanical Engineers (ASME) design contest at the regional and national level. Most ME design projects have industrial sponsors such as Boeing, GM, Raytheon, as well as many of the local industries in southern New Mexico. Many students from ME and other engineering departments participate in multidisciplinary projects through the M-TEC, Advanced Manufacturing Center. Each year ME students and Engineering Technology students work in teams on the Mini-Baja vehicle student design and competition which is sponsored by the Society of Automotive Engineers.
- Computer Science students are required to complete a semester long capstone project; in such project they work in teams to perform the complete cycle of software design and development, addressing a problem assigned by an outside "customer." The project is supervised by one faculty member and it includes written reports and open presentations.
- Other design contests include C-9 (KC135) Student Microgravity Flight competition, Associated Schools of Construction Regional Bidding competition, and NASA University Student Launch competition.

College of Engineering Profile: 18. Areas of Expertise by Departments

Engineering Departments	Areas of Expertise	
Aerospace Engineering	1 Aeroelasticity and flutter	2 Space dynamics, space weather and orbital mechanics
	3 Fluid-structure interaction: flapping wing propulsion	4 Experimental aerofluids
Chemical Engineering	1 Separations	2 Advanced materials
	3 Computer modeling and simulation	4 Energy
	5 Biomaterials	6 Polymers/rheology
Civil Engineering	1 Structures	2 Environmental
	3 Water resources	4 Geotechnical
	5 Transportation	

Computer Science	1 Data bases and data mining	2 Artificial Intelligence
	3 Computer Networks	4 Bioinformatics
	5 Human Factors and User Interfaces	
Electrical and Computer Engineering	1 Analog and mixed-signal VLSI, Wearable integrated sensors, mobile computing devices for ubiquitous signal processing	2 Delta-sigma processing circuits, BiCMOS circuit design, integrated power management, low-voltage, low-power CMOS and ViCMOS circuits
	3 Wireless communications, coding, communication theory, telemetry	4 Bioelectromagnetics, Microwave Engineering, Radar/Remote Sensing
	5 Power system analysis, optimization and control, micrigrids	6 Image Processing, Speech and Audio Processing, Pattern Recognition
	7 Adaptive optics, imaging systems, electro-optical sensors, optical communication	8 Micro-architectures, high-performance computing, wireless sensor networks
	9 Control Systems, Soft Computing	10 Space Weather, Space Science
Engineering Physics	1 Nuclear Physics	2 Material Science
	3 Geophysics	4 Physics Education
	5 Applied Physics	
Industrial Engineering	1 Manufacturing engineering, management and computer-integrated manufacturing	2 Operations Research
	3 Applied statistics	4 Simulation
	5 Systems Engineering	
Mechanical Engineering	1 Computational mechanics and micromechanics	2 Control, dynamics and nonlinear vibrations
	3 Experimental and computational fluid dynamics	4 Robotics and mechatronics
Surveying Engineering/ET	1 Land boundary systems	2 Surveying with GPS
	3 Land information systems	4 Surveying ethics
	5 Data integration	6 Geodesy
Unclassified Engineering		

College of Engineering Profile: 19. College Description and Special Characteristics

Engineering College Description and Special Characteristics

The College offers four year and coop programs in engineering and engineering technology. Freshman students are immediately integrated into the College of Engineering and advised by engineering faculty and are enrolled in a departmental course their first semester.

New Mexico State supports the land grant mission of making a quality education available to all. It is located on the outskirts of a rapidly growing dynamic, multicultural small city. Most students live on campus or in apartment complexes in the vicinity.

The College provides an environment where students from cities, towns, farms, ranches, reservations,

pueblos, and foreign countries enjoy learning together. Student learning is supported by available faculty and student study halls in every department. The College encourages and supports student organizations.