



# ENGINEERING AND INDUSTRIAL TECHNOLOGY

## Transfer Requirements

The following requirements for the major are subject to change without notice. To assure that this information is current, you should consult with an Engineering and Industrial Technology counselor or review articulation agreements via the Internet at [WWW.ASSIST.ORG](http://WWW.ASSIST.ORG). You may also consult the Articulation Officer for specific articulation agreements.

**CAREER OPPORTUNITIES:** Industrial Technologists perform high-level technical work in the creation, production, utilization, and distribution of industrial materials, products and processes. Their work includes planning, estimating, expediting, coordinating, specification and proposal writing, facilities planning and development, production and quality control, and safety management. Potential employers are in such fields as construction, electronics, manufacturing, metals, printing and quality assurance. Some positions involve administrative, management and industrial marketing responsibilities. The employment outlook is very favorable based on current industrial expansion and increasing complexity of modern technology.

### CALIFORNIA STATE UNIVERSITY, LOS ANGELES

**B.S. in Industrial Technology:** Options available in Aviation Administration, Graphic Communications, Fire Protection Administration and Industrial Technology. These programs allow students to develop expertise in specific technical areas including: automated manufacturing and robotics, computer aided design (CAD), computer aided manufacturing (CAM), electronics, design/drafting, graphic communications/printing, manufacturing, and power, energy and transportation. Graduates of these programs are employed in a wide range of careers including managers, management representatives, administrators, production supervisors, trainers, technical support specialists, and technology educators. It is **highly recommended** that students speak with an adviser about the individual options at (323) 343-4550 or email [tech@calstatela.edu](mailto:tech@calstatela.edu)

**Aviation Administration:** The lower division program is completed at a community college or other four-year institutions. Several community colleges offer lower division aviation programs and are listed on CSULA's website: [http://www.calstatela.edu/academic/ecst/tech/aviation/community\\_college\\_links.htm](http://www.calstatela.edu/academic/ecst/tech/aviation/community_college_links.htm). Students should contact CSULA for further information regarding this major (email: [kmew@calstatela.edu](mailto:kmew@calstatela.edu)). Required: English 1C; Recommended pre-requisites for upper division courses are: Business 1A-1B; Econ 1, 2; Law 5; CIS 13

**Graphic Communications:** The major combines graphic arts with business management. Requirements: English 1C; Bus 1A-1B; Econ 1, 2; Law 5; CIS 13

**Industrial Technology:** English 1C; CIS 13; Chemistry 21A or Physics 11 and 12; Math 180; Recommended: Business 1A-1B; A Tech 1; Architecture 150A; ECHT 11 and 14; MTT 16ab; Photography 51; CADD 5 and 10abcd

**Fire Protection Administration and Technology:** English 1C; Fire Science 2, 4, 5, 6, 20 and fire science electives to total 15-21 units. Recommended: Fire Science 8, 9, 10; Sociology 101, 109

### CALIFORNIA STATE UNIVERSITY, LONG BEACH

**B.S. in Engineering Technology:**

All Options: Physics 2A-2B or 3A-3B; CADD 5; CIS 13; Math 190-191.

Options: **Environmental Technology:** add Chemistry 1A, ECHT 110

**Manufacturing Technology:** add Chemistry 1A; ECHT 110; MTT 46; Math 150 or Psychology 9A or Sociology 109

**Electronics Engineering Technology:** add ECHT 110, 112, 120, 130; Math 150 or Psychology 9A or Sociology 109

**Computer Engineering Technology:** add ECHT 110, 112, 120, 130; Math 150 or Psychology 9A or Sociology 109

**Technology and Engineering Education:** Art 29ab, 146abcd; CS 3; Architecture 150A; CADD 5; ECHT 110; ETEC 16; MTT 46; \*Math 190-191 not listed as required courses

**CALIFORNIA STATE UNIVERSITY, CHICO**

Construction Management: Business 1A-1B; Chemistry 1A-1B; Economics 1, 2; Math 190; Physics 2A-2B. A minimum grade of C or better is required in Accounting, English Composition (Area A2), Calculus, and Physics.

Manufacturing Technology: Business 1A; Chemistry 1A-1B; Economics 1, 2; Math 150, 180; Physics 2A-2B

Concrete Industry Management-a multidisciplinary program offered by the College of Engineering  
Chemistry 1A-1B; Geology 1, 3; Math 150, 170; Physics 2A-2B

**CALIFORNIA STATE POLYTECHNIC UNIVERSITY, POMONA**

B.S. in Engineering Technology: Options available in Electronics and Computer Engineering Technology, Construction Engineering, or General Engineering Technology

Core Requirements for all Options: Chemistry 1A; Physics 2A and 2B or 3A and 3B; Engineering 9; Math 190-191

Construction Engineering Option: add CADD 5 or 10abcd

Electronics and Computer Engineering Technology Option: add Electronics 110, 112, 122, 130

General Engineering Technology Option: Includes Environmental, Manufacturing, and Mechanical emphasis: add CADD 5

**CALIFORNIA STATE POLYTECHNIC UNIVERSITY, SAN LUIS OBISPO**

B.S. in Industrial Technology

Core Requirements: Chemistry 20 or 1A; Mathematics 160 or 190 and one course from Math 150 or Psychology 9A or Sociology 109; Physics 2A-2B or 3A-3B; Economics 5

B.S. Construction Management: Engineering 9; Law 5; Business 1A, 1B; Economics 1, 2; Geology 1; Math 150, 190, 191; Physics 1A; Chemistry 1A

**SAN JOSE STATE UNIVERSITY**

B.S. in Industrial Technology: Options available in Computer Electronics and Network T and Manufacturing Systems

Core Requirements for both Options: Chemistry 1A; Economics 2; Physics 2A-2B; Math 160

<b>ELECTRONICS AND COMPUTER HARDWARE TECHNOLOGY</b>				
Course Number Comparison Effective: Fall 2002				
Electronics (Old Numbers)	Units	Electronics and Computer Hardware Technology (New Numbers)		Units
10	4	11	Introduction to Electronics	3
1A/102	4	110	Introduction to Direct and Alternating Current Circuits	3
103	4	112	Advanced Direct and Alternating Current Circuits	3
1B/104	4	120	Semiconductor Circuits I	3
1B/105	4	122	Semiconductor Circuits II	3
1D/204 and 214	4	124	Operational Amplifiers and Linear Integrated Circuits	3
132	4	140	Computer Systems and Hardware Technologies I	4
50P	4	144	A+ Certification for Computer Hardware Systems	4
1E/314	4	150	Electronic Communications I	4
1E/325	4	152	Electronic Communications II	2
214	4	190	Analog and Digital Systems Analysis and Troubleshooting	4
235	4	191	Introduction to Microprocessors and Interfacing	3
238	4	192	Robotics and Machine Control	4