INDUSTRIAL TECHNOLOGY MAJOR

Overview of Industrial Technology
Industrial Technology prepares individuals to be effective technical managers and entrepreneurial leaders in a rapidly changing technological and global economy. It is particularly suited for careers that involve working with people and technology concurrently. Industrial Technology emphasizes preparation for technical leadership responsibilities with a broad variety of industries including manufacturing, communication, transportation and utility services. Students who enjoy working with people in solving technical problems are particularly well-suited for careers in industrial technology.

Sample Job Functions and Descriptions for Industrial Technology Professionals

**Associate Quality Engineer** - Provide technical support to entire organizations to assure products are designed and manufactured with high quality and reliability, within all regulatory requirements and meet or exceed customer expectations.

**Business Analyst** - Responsible for the development of business requirements, analysis and design of business systems that support the various functional groups at a company which may include finance, manufacturing, sales, marketing and customer service. May develop flow diagrams, and provide required documents and training materials in support of developed systems in a business model.

**Consultant** – Partner with clients to solve problems and streamline business through the most intelligent use of information technology. Develop long-term strategies for strengthening client information technology capabilities; analyze client functions and activities to improve performance; design technical architectures for both system and application functions; design and develop applications using state-of-the-art tools.

**Industrial Engineer** – Analyze and forecast manpower, equipment and space requirements. Determine improvements in manufacturing processes, methods, equipment and facilities layouts. Prepare manufacturing cost estimates, develop manufacturing master schedules and associated rates and flow charts. Analyze work center and machine capacity requirements, utilization and schedules. Position requires strong interpersonal and team skills.

**Loss Control Trainee** – Act as safety manager for existing and prospective insurance risks. Perform on-site evaluations, make recommendations and help clients organize programs for fire protection, occupational safety and loss prevention.

**Management Trainee** – Participate in one-to-two year training programs to become department managers. Training is often rotational with trainees learning different aspects of the business.

**Procurement Specialist** – Responsible for purchasing, contracting, expediting, traffic and logistic services, and warehousing. Serve as liaison with vendors and suppliers.

**Production Supervisor** - Work directly with sales force, purchasing, shipping, stockroom and training to ensure customer satisfaction. Monitor and improve department’s quality, productivity, and efficiency. Plan and coordinate manufacturing and production resources to meet customer needs and production plans. Handle responsibility of the manufacturing function of customer focused teams, schedule production timelines, supervise and motivate the activities of the assembly workers, lead improvement activities within the department, and provide development plans for individuals in the department.
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**Project Manager** – Coordinate incoming work and projects, provide sales support and design and implement solutions for new and existing clients. Manage multiple activities, set priorities, work in teams and communicate effectively.

**Technical Sales** – Sell products to client base. Work involves establishing relationships with customers, development of sales region, market studies and forecasting, scheduling, and administration. Position requires travel, strong interpersonal, verbal and written communication skills.

**Skills and Abilities**
Entrepreneurship is a constant theme among IT classes. Students who are drawn to IT enjoy technology and business as well as practical, hands-on projects. Ability to communicate effectively, manage others, and organize schedules to meet project deadlines. IT courses often involve group work, so the ability to work in teams is an important skill.

**Typical Job Titles (Cal Poly recent graduates)**
- Project Manager
- Facilities Engineer
- Project Buyer
- Quality Assurance Engineer
- Pharmaceutical Sales Representative
- Industrial Engineer
- Packaging/Design Research Analyst
- Project Engineer
- Manufacturing Engineer
- Technical Sales
- Structural Designer

**Salary Information**
*Career Services’ Graduate Survey for Cal Poly recent grads:*
- 2009-2010—Median Salary—$60,000

**Preparation**
- Find information about the Industrial Technology major from [www.cob.calpoly.edu](http://www.cob.calpoly.edu)
- Check out Career Services’ Graduate Survey- lists employers, job titles, and salary information of recent Cal Poly graduates divided by major/concentration - [https://www.careers.calpoly.edu/search.php](https://www.careers.calpoly.edu/search.php)
- Industrial Technology Society (ITS) - [http://itsociety.calpoly.edu/](http://itsociety.calpoly.edu/) - Meet people in your concentration, network with employers, and get involved to build your resume!

**Career Research Resources**
- [www.careerservices.calpoly.edu](http://www.careerservices.calpoly.edu) – Cal Poly Career Services - career planning links, job listing links, career information and help
- **MustangJOBS** – On your portal account, find local part-time job, internship, and career postings for Cal Poly students, in addition to information on employers who recruit Industrial Technology students
- [http://www.bls.gov/oco/ocos001.htm](http://www.bls.gov/oco/ocos001.htm) - Department of Labor & Statistics information about careers
- Career Books available in the **Career Resource Center** at Cal Poly (Bldg. 124, Rm. 117): *Careers in Business; Opportunities in Business Management Careers, Getting Started in Consulting, Careers in Management Consulting*