

Industrial Technology Courses

INT 101 Introduction to Manufacturing. (3) I, II. A study of future trends and careers in manufacturing. A survey of the manufacturing enterprise. Nature, scope, and general functional characteristics of manufacturing technology.

INT 192 Descriptive Geometry. (3) II. Prerequisite: TEC 190. Application of the theory of orthographic projection to the graphical representation and solution of three-dimensional problems. 2 Lec/2 Lab.

INT 195 Computer Aided Drafting. (3) I, II. Prerequisite: TEC 190. A study of the computer aided drafting (CAD) software commands. Content will include basic fundamentals, drawing and editing commands, input/output methods, and industry application. 2 Lec/2 Lab.

INT 200 Introduction to Industrial Distribution. (3) I, II. The study of the distribution industry including channels of distribution, roles of manufacturers, industrial distributors, and customers, and understanding the process of receiving and distributing commercial products within the supply chain. A survey of current trends in global logistic and warehouse management.

INT 201 Metallic Material Processes. (3) I, II. Introduction to manufacturing processes involving metallic materials. Families of processes covered are casting, molding, forming, separating, conditioning, assembling, and finishing. 2 Lec/2 Lab.

INT 202 Quality Control. (3) I, II. Prerequisites: STA 215 or 270 or QMB 200 and MAT 107 or higher mathematics. Basic concepts of statistical quality control as applied to manufacturing operations. Topics include control charts, acceptance sampling, product reliability, quality cost, and quality planning.

INT 238 Industrial Materials. (3) I, II. Prerequisite: CHE 101 and 107 or CHE 111 and 115. Structure, composition, properties, and common industrial applications of metals, plastics, woods, composites, ceramics, and other materials. Use of common testing machines for standard materials testing. 2 Lec/2 Lab.

INT 242 Furniture and Cabinet Construction. (3) A. Prerequisite: TEC 141. Principles of furniture and cabinet construction, elements of structural design, advanced woodworking operations; care and sharpening of tools; related technical information; furniture and cabinet construction and finishing. 2 Lec/2 Lab.

INT 301 Non-Metallic Material Processes. (3) II. Prerequisite: INT 238. Introduction to manufacturing processes used to shape or form wood, plastic, and composite materials. Families of processes covered are casting, molding, forming, separating, conditioning, assembling, and finishing. 2 Lec/2 Lab.

INT 308 Methods Efficiency Measurement. (3) I, II. Prerequisites: STA 215 or 270 or QMB 200 and MAT 107 or higher. An examination of the human factors in motion and time study, motion economy, analysis and charts, photographic and electronic techniques, film analysis, effort rating, work measurement, direct time study, predetermined time study, and standards for pay and production.

INT 310 Computer Communications in Industry. (3) I. Prerequisites: ENG 102, TEC 161. A conceptual approach to computer aided communication systems typically applied in industrial environments. Emphasis will be placed on utilizing computer technology to integrate text and graphics in the preparation of documents and presentation materials.

INT 320 Warehousing and Material Handling. (3) A. Pre/Corequisites: INT 202 and 308. A laboratory course which examines basic warehouse layout configurations and material flow, an a critical evaluation of the application of computers to control material flow plus computer simulation to analyze various warehouse layout options for scheduling, picking and material tracking. 2 Lec/2 Lab.

INT 330 Dimensional Metrology. (3) A. Prerequisite: MAT 108 and TEC 190. A study of geometric dimensioning and tolerancing as used in detail working drawings and the principles, standards, equipment, and techniques of precision electronic and mechanical measurement. 2 Lec/2 Lab.

INT 332 Process Control and Auditing. (3) A. Prerequisite: INT 202. An advanced study of the Statistical Process Control methods and procedures in industry, and auditing as a method of evaluating the documentation, implementation, and effectiveness of a Quality System.

INT 336 Reliability and Sampling. (3) A. Prerequisite: INT 202. An overview of reliability, testing, and sampling theories. Topics include component and system reliability, product safety, sampling plans, control charts, and standards.

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INT 352 Automated Technology Devices. (3) A. Prerequisite: EET 251. The electronic hardware used in computer integrated manufacturing. Topics include PLCs, interfacing devices, sensors, data entry and bar coding, motors, ADCs, and DACs. 2 Lec/2 Lab.

INT 371 Hydraulics and Pneumatics. (3) II. Principles of the operation, construction, control, and application of hydraulic and pneumatic components and circuits. The study of control applications includes manual, mechanical, fluid, electrical, and computer controlled fluid circuits. 2 Lec/2 Lab.

INT 382 Machine Tool Processes. (3) A. Prerequisites: INT 201 and 238. A laboratory course involving turning, drilling, sawing, milling, grinding, and precision layout and measuring. Activities include the making of tools, the setup of an automatic turret lathe, and the programming of an NC milling machine. 2 Lec/2 Lab.

INT 383 CAD/CAM Integration. (3) A. Prerequisite: INT 201. The use of computer application software to link data bases created with computer aided design software to computer numerical controlled machine tools. 2 Lec/2 Lab.

INT 390 Advanced Computer Aided Design. (3) A. Prerequisite: INT 195. A study of advanced topics in three-dimensional computer aided design. The content will include advanced modeling and rendering. 2 Lec/2 Lab.

INT 392 Computer Aided Machine Drawing. (3) I. Prerequisites: INT 195. Computer generated detail and assembly drawings. Topics include threads and fasteners, gearing and cams, and dimensioning and tolerancing. 2 Lec/2 Lab.

INT 397 Advanced Machine Drawing. (3) A. Prerequisites: INT 390 and 392. Advanced machine drawing applications to include detail and assembly drawings, threads and fasteners, gearing and cams. Emphasis on shape description. 2 Lec/2 Lab.

INT 400 Distribution Operations Management. (3) II. Prerequisites: INT 200, INT 308 and MKT 312. A course designed to build upon previous distribution related topics that assist in making strategic decisions in distribution operations. An integration of warehouse types and configurations, stock analysis and control, picking and packing, plus value added analysis related to customer service and return on investments.

INT 406 Manufacturing Planning Systems. (3) I, II. Prerequisite: INT 308. A senior project course which examines consumer needs, product design, product engineering, tooling-up for production, establishing production and quality standards, planning and controlling production, and quality.

INT 408 Human Resource Development. (3) I, II. Topics in human relations and production management. To be scheduled the semester before graduation.

INT 499 Manufacturing Senior Project. (3) A. Prerequisite: instructor approval. A synthesis experience involving the solution of realistic manufacturing problems. Emphasis is placed on teamwork and group efforts. 2 Lec/2 Lab.

INT 506 Total Quality Control. (3) A. Prerequisite: INT 202. A study of total quality control as it relates to the integration of all functions and processes within an organization in order to achieve continuous improvement of the quality of goods and services.

INT 530 Manufacturing Experiment Design. (3) A. Prerequisites: INT 332 and 336. Principles and practices of efficient experiment design for industry. Topics include the philosophy of experiment design, comparison of various designs, hypotheses testing, and the analysis of data.