I SY E 605, Computer Integrated Manufacturing

1. **Credits** : 3  
   **Contact Hours** : 3.3


   a. **Other Supplemental Materials** : N/A

   • **Specific Course Information** :

      a. **Brief description of the content of the course (Course Catalog Description)** : An introduction to computer-integrated design and manufacturing with a focus on manufacturing process planning. Emphasis on concurrent engineering principles, manufacturing process engineering, computer-aided process planning, NC programming, and CAD/CAM integration. Course provides experience with CAD/CAM software and NC machines.

      b. **Pre-requisites or Co-requisites** : Ind Engr 315 or cons inst

      c. **This is a Elective course**.

   • **Specific Goals for the Course** :

      a. **Course Outcomes** :

         1. To gain an understanding and appreciation of the principles and methods of computer integrated manufacturing.

         2. To develop skills and learn modern analytical and computer techniques useful for solving manufacturing product/process design problems in such areas as: A. product geometry design; B. manufacturing process planning; C. production system planning and scheduling.
• **ABET Student Learning Outcomes:**

(a) Ability to apply mathematics, science and engineering principles.
(b) Ability to design and conduct experiments, analyze and interpret data.
(c) Ability to design a system, component, or process to meet desired needs.
(d) Ability to function on multidisciplinary teams.
(e) Ability to identify, formulate and solve engineering problems.
(f) Understanding of professional and ethical responsibility.
(g) Ability to communicate effectively.
(h) The broad education necessary to understand the impact of engineering solutions in a global and societal context.
(j) Knowledge of contemporary issues.
(k) Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.

• **Brief List of Topics to be Covered:**


• **Additional Information:** N/A