

97-02

January 31, 1997

**BS in Manufacturing Engineering (code 3-4305)**

This program was recommended by the Academic Senate on February 29, 1996, concurred by the President on March 7, 1996 and approved by the Chancellor on November 27, 1996.

The objective of the Bachelor of Science in Manufacturing Engineering (BSMfgE) program is to educate engineers who can design, build and manage competitive production systems. In accomplishing this objective, the program has been developed to include a resource of manufacturing knowledge that can be used to infuse manufacturing theory, principles and practices into all other disciplines in the College of Engineering.

**Requirements for the BS in Manufacturing Engineering (137 units)****I. General Education (36 units, not counting 9 units of Math/Science)**

Required GE categories:

1. Communication and Critical Thinking (Category A)
2. Physical Universe (Category B)
3. Humanities and the Arts (Category C)
4. Social and Behavioral Sciences (Category D)
5. Self Integration (Category E)

**II. Basic Sciences (13 units):** CHEM 111A, PHYS 151, PHYS 152**III. Basic Mathematics (15 units):** MATH 122, MATH 123, MATH 224, MATH 370A**IV. Engineering Sciences(16 units):** EE 212, CE 205, ME 205, ME 371, ME 373**V. Engineering Topics (11 units):** ENGR 170, ME 172, ENGR 223, ENGR 264**VI. Manufacturing Engineering Core (36 units):**

1. Design for Manufacturing (9 units): ENGR 360, ME 376, ME 405A
2. Manufacturing Materials and Processes (9 units): ME 322, ENGR 330, CH E 385
3. Manufacturing Systems and Automation (9 units): ME 405B, ME 474, ENGR 483
4. Manufacturing Management, Quality and Productivity (9 units): ENGR 311, ENGR 418, ENGR 461

**VII. Emphasis Electives**

The student selects 9 units from one of the following specialized emphases:

1. Engineering Emphasis: ME 429, ME 445, ME 476, ENGR 460,
2. Mechanical Engineering Emphasis: ME 324, ME 409A, ME 428, ME 495
3. Chemical Engineering Emphasis: CH E 335, CH E 425, CH E 435, CH E 437
4. Aerospace Engineering Emphasis: AE 315, ME 428, AE 472, AE 483
5. Electrical Engineering Emphasis: EE 330, EE 350, EE 450

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**EFFECTIVE: January 1997**

Code: 4305

College: 52

Career: UG

IPEDS (Major) ERSS: 09134

IPEDS (Degree) ERSD: 09134