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One Hundred and Forty-First Report of the Curricular Affairs Committee

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UNIVERSITY OF RHODE ISLAND
Kingston, Rhode Island

FACULTY SENATE
BILL

Adopted by the Faculty Senate

RECEIVED
UNIVERSITY OF R. I.
FEB 27 1978
OFFICE OF THE PRESIDENT

TO: President Frank Newman

FROM: Chairman of the Faculty Senate

1. The attached BILL, titled One Hundred and Forty-First Report of the Curricular Affairs Committee

is forwarded for your consideration.

2. The original and two copies for your use are included.
3. This BILL was adopted by vote of the Faculty Senate on February 23, 1978 (date).
4. After considering this bill, will you please indicate your approval or disapproval. Return the original or forward it to the Board of Regents, completing the appropriate endorsement below.
5. In accordance with Section 8, paragraph 2 of the Senate's By-Laws, this bill will become effective on March 16, 1978 (date), three weeks after Senate approval, unless: (1) specific dates for implementation are written into the bill; (2) you return it disapproved; (3) you forward it to the Board of Regents for their approval; or (4) the University Faculty petitions for a referendum. If the bill is forwarded to the Board of Regents, it will not become effective until approved by the Board.

February 24, 1978
(date)

Robert M. Gutchen
Robert M. Gutchen
Chairman of the Faculty Senate

ENDORSEMENT 1.

TO: Chairman of the Faculty Senate

FROM: President of the University

1. Returned.
2. Approved ✓ Disapproved _____.
3. (If approved) In my opinion, transmittal to the Board of Regents is not necessary.

3/1/78
(date)

Frank Newman
President

(OVER)

ALTERNATE ENDORSEMENT 1.

TO: Chairman of the Board of Regents

FROM: The University President

- 1. Forwarded.
- 2. Approved.

(date)

President

ENDORSEMENT 2.

TO: Chairman of the Faculty Senate

FROM: Chairman of the Board of Regents, via the University President.

- 1. Forwarded.

(date)

(Office)

ENDORSEMENT 3.

TO: Chairman of the Faculty Senate

FROM: The University President

- 1. Forwarded from the Chairman of the Board of Regents.

(date)

President

Original received and forwarded to the Secretary of the Senate and Registrar for filing in the Archives of the University.

(date)

Chairman of the Faculty Senate

FACULTY SENATE

January 24, 1978

Faculty Senate Curricular Affairs Committee One Hundred and Forty-First Report

At its meeting of January 23, 1978, the Faculty Senate Curricular Affairs Committee considered the following matters now presented to the Faculty Senate.

SECTION I

Informational Matters (Including Temporary Courses):

A. College of Engineering

1. Department of Civil and Environmental Engineering

CHANGE: Prerequisite for the following courses:

- 1) CVE 460* to "Pre: 352"
- 2) CVE 465* to "Pre: 353"

2. Department of Electrical Engineering

CHANGE: Title and description for ELE 220:

ELE 220 Passive and Active Circuits (11,3) Electrical circuit laws and theorems, transient and steady state response, phasors, frequency response, resonance. Diode and transistor circuits, digital logic devices. Not for students concentrating in electrical engineering. (Lec. 3) Pre: PHY 214 or ELE 210. Daly

B. College of Resource Development

Department of Food Science and Technology, Nutrition and Dietetics

Food and Nutritional Science

** FNS 307X Nutrition and Aging (11,3) Nutrition of the elderly as affected by metabolic and physiologic factors in aging. Study of the nutritional requirements and status of the elderly as well as the effectiveness of nutrition support systems. (Lec. 3) Pre: BIO 102, FNS 207 or CDF 250, or permission of instructor. Eshleman and Bergan

SECTION II

Curricular Matters Which Require Confirmation by the Faculty Senate:

A. College of Business Administration

* Graduate Council approval not required, courses are not for graduate credit.
** Approved by the Curricular Affairs Committee on January 13, 1978.

ADD: Area of Interest:

Area of Interest - Optional

After choosing a major field, students may elect to declare an area of interest which will appear on their transcripts as a category separate from their major. Credit may be drawn from any combination of concentration, distribution, electives and course-level categories. An area of interest may be defined as (1) the completion of 18 or more credits offered within a department and approved by the department chairperson or (2) the completion of 18 or more credits of related studies offered by more than one department and approved by a member of the University faculty competent in the area of interest and the Scholastic Standing Committee of the College of Business Administration. It is the responsibility of the student to declare his or her area of interest no later than the beginning of the semester he or she expects to graduate.

B. College of Engineering

1. Department of Civil and Environmental Engineering

a. ADD: The following new courses:

- 1) CVE 352 Structural Analysis and Design I (1,3) Structural systems: beams, frames, trusses. Conjugate beam, virtual work, general method for indeterminate structures. Introduction to design of steel structures. (Lec. 3) Pre: 220. Staff
- 2) CVE 353 Structural Analysis and Design II (11,3) Energy methods, slope deflection, moment distribution, influence lines, stability, matrix methods. Introduction to reinforced concrete design. (Lec. 3) Pre: 352. Staff

b. DELETE: The following courses:

- 1) CVE 350 Structural Analysis I (1,3)
- 2) CVE 351 Structural Analysis II (11,3)

c. CHANGE: Curriculum requirements for B.S. in Civil and Environmental Engineering:

FRESHMAN

First Semester

CHM 101 General Chemistry 3
 CHM 102 Chemistry Laboratory 1
 EGR 101 Intro to Engineering or 1
 EGR 102 Basic Graphics

Second Semester

Natural science elective 3-5
 EGR 101 Intro to Engineering or 1
 EGR 102 Basic Graphics

MTH 141 Introductory Calculus with Analytic Geometry	3	MTH 142 Intermediate Calculus with Analytic Geometry	3
GEL 103 Physical Geology	3	MCE 162 Statics**	
GEL 106 Introductory Geology Lab	1	or	
General education electives in Division A, C or D	<u>3</u>	PHY 213 and 285 Elementary Physics and Physics Lab	3-4
	15	General education electives in Division A, C or D	<u>6</u>
			16-19

SOPHOMOREFirst Semester

MTH 243 Calculus and Analytic Geometry	3
MCE 263 Dynamics	3
PHY 214 Elementary Physics	3
PHY 286 Physics Lab	1
CVE 216 Metronics	3
CVE 301 Intro to Professional Practice in Civil Engineering	0
General education elective in Division A, C or D	<u>3</u>
	16

JUNIORFirst Semester

Approved science elective**	3
CVE 322 Civil Engineering Laboratory I	2
MCE 354 Fluid Mechanics	3
CVE 303 Intro to Professional Practice in Civil Engineering	0

SENIORFirst Semester

CVE 305 Intro to Professional Practice in Civil Engineering	0
---	---

The remaining courses in the junior and senior years shall be selected by the student to satisfy the following requirements:

Required Core Courses (15 credits):

CVE 352 Structural Analysis and Design I	
CVE 353 Structural Analysis and Design II	
CVE 374 Environmental Engineering I	
CVE 380 Soil Mechanics and either	
CVE 396 Civil Engineering Analysis or	
CVE 495 Civil and Environmental Engineering Systems	

* It is recommended that MCE 162 Statics be selected.
** From a list approved by the department.

Mathematical science elective:

Each student must select at least one course at the 400 level or above in mathematics, statistics or operations research.

Professional electives:

Each student in consultation with his adviser selects at least 24 credits of approved courses in engineering and other areas appropriate to a program in Civil and Environmental Engineering.

General education and free electives:

An additional 9 credits in Division A, C or D are required to complete the University general education requirements and all students in the University must select 6 credits of free electives.

Total Credits Required 129 - 132

This curriculum is to take effect with students entering the First Semester of the Freshman Year in the Fall of 1978 - the Class of 1982.

2. Department of Electrical Engineering

a. ADD: ELE 221 Electronic Instruments and Electromechanical Devices (1,3) Amplifiers, frequency response, feedback, field effect transistors, operational amplifier applications, electrical measurements. Magnetic circuits, transformers, electromechanical transducers, and systems, DC and AC machines. (Lec. 3) Not for students concentrating in Electrical Engineering. Pre: 220. Daly

b. CHANGE: Curriculum requirements for B.S. in Electrical Engineering:

FRESHMAN

<u>First Semester</u>	<u>Second Semester</u>
CHM 101 or 102	Basic Science Elective (to be specified)
Gen. Chemistry I and Lab	EGR 102 or 101
EGR 101 or EGR 102	Basic Graphics or Intro. to Engr
Intro. to Engr. or Basic Graphics	MTH 142 Intro. Calc. w/ Analyt. Geometry
MTH 141 Intro. Calc. w/ Analyt. Geometry	PHY 213 and 285 Elem. Physics I
MTH 141L Intro. Calc. Prob. Solving Lab	Two electives in Divisions A, C or D
CSC 201 Intro. to Computing	
One elective in Divisions A, C or D	

SOPHOMOREFirst Semester

MTH 243 Calc. and Analyt. Geom. of Several Variables	3	MTH 362 Adv. Engineering Mathematics I	3
ELE 210 Intro. to Electr. and Magnetism	3	PHY 341 Modern Physics	3
PHY 223 Intro to Acoustics and Optics	3	ELE 211 Linear Syst. Circ. Theory	3
ELE 209 Concepts in Electrical Engr.	3	ELE 205 Microprocessor Laboratory	3
ELE 214 Intro. ELE Laboratory	1	MCE 263 Dynamics	3
One elective in Division A, C or D	<u>3</u>	One elective in Division A, C or D	<u>3</u>
	16		18

JUNIOR

First Semester

MTH 363 Adv. Engineering Mathematics II	3
ELE 312 Linear Systems and Circ. Theory	4
ELE 322 Electromagnetic Fields I	3
ELE 331 Electrical Engr. Materials I	3
One elective in Divisions A, or C	3
	<u>16</u>

Second Semester

PHY 420 or MCE 341 Thermodynamics	3
ELE 313 Linear Systems II	3
ELE 323 Electromagnetic Fields II	3
ELE 342 Electronics I	4
One elective in Division A or C	3
	<u>16</u>

SENIOR

ELE 443 Electronics II	5
Two emphasis courses	6
Emphasis Lab	3
Electrical Engineering elective	3
Engineering elective*	3
Mathematics elective	3
Two electives in Divisions A, C or D	6
Free electives	3
Total credits for 2 semesters	<u>32</u>

* The Senior year engineering elective must be taken outside Electrical Engineering.

TOTAL CREDITS: 130
For students electing Biomedical Electronics option, delete CSC 202 and insert CSC 410.
Minimum Requirements

The minimum requirements for the B.S. degree in Electrical Engineering are as follows:

Total credits - 130 minimum

Human Communications, Humanities and Social Sciences 27 credits

- All students must demonstrate competence in the expression of ideas in written English. This requirement may be met by satisfactorily completing six credits in "Division D" (Human Communications).
- At least 9 credits from Division A (Arts and Humanities). At least 6 of these credits must be in one area of concentration.
- At least 9 credits from Division C (Social Sciences). At least 6 credits must be in one area of concentration.

Mathematics 19 credits

MTH 141, 141L, 142, 243, 362, 363; 3 cr. MTH elective (200 level or higher)

Basic Sciences 20 credits

CHM 101/102; Basic Science Elective (any course in CHM, BIO, GEL, ESC, PHY or ZOO approved by the department), PHY 213, PHY 285, PHY 223, PHY 341, Thermodynamics (PHY 420 or MCE 341)

Computer Science 3 credits

CSC 201

Engineering Sciences and Design

56 credits

MCE 263, ELE 205, ELE 209, ELE 210, ELE 214, ELE 211, ELE 312, ELE 313, ELE 322, ELE 323, ELE 331, ELE 342, ELE 443, Two emphasis courses, Emphasis Lab, Electrical Engineering electives, Engineering elective (non-Electrical)

Other Engineering Courses

2 credits

EGR 101, EGR 102

Free Electives

3 credits

TOTAL CREDITS

130 credits

c. CHANGE: Curriculum requirements for B.S. in Biomedical Electronics Engineering:

FRESHMAN

First Semester

CHM 101 General Chemistry I	3
CHM 102 Lab for CHM 101	1
EGR 101 Intro. to Engineering	1
EGR 102 Basic Graphics	1
MTH 141 Intro. to Calculus	3
MTH 141L Problem Solving Lab for MTH 141	1
CSC 201 Introduction to Computing	3
General Educ. Elec. A, C or D*	3
	<u>16</u>

Second Semester

CHM 124 Organic Chemistry	4
MTH 142 Intermediate Calculus	3
PHY 213 Elementary Physics	3
PHY 285 Lab for PHY 213	1
ZOO 111 General Zoology	4
General Educ. Elec. A, C or D*	3
	<u>18</u>

SOPHOMORE

First Semester

ELE 209 Concepts in Elect. Egr.	3
ELE 210 Intro. to Elect. & Magnetism	3
ELE 214 Lab for ELE 210	1
MTH 243 Calculus & Anal. Geometry	3
ZOO 345 Basic Animal Physiology	3
General Educ. Elec. A, C or D*	6
	<u>19</u>

Second Semester

ELE 205 Microprocessor Lab	3
ELE 211 Linear Syst. & Ckt. Theory I	3
MCE 263 Dynamics	3
MTH 362 Advanced Engineering Math I	3
PHY 223 Intro. to Acoustics & Optics	3
General Educ. Elec. A, C or D*	3
	<u>18</u>

JUNIOR

First Semester

ELE 312 Linear Syst. & Ckt. Theory II	4
ELE 322 Electromagnetic Fields I	3
MTH 363 Advanced Engineering Math II	3
PHY 340 Intro. to Modern Physics	3
General Educ. Elec. A or C*	6
	<u>19</u>

Second Semester

ELE 313 Linear Systems	3
ELE 323 Electromagnetic Fields II	3
ELE 342 Electronics I	4
PHY 420 Intro. to Thermodynamics & Stat. Mechanics (preferred)	3
or	
MCE 341 Fundamentals of Thermodynamics	3
General Educ. elective	3
	<u>16</u>

SENIOR

<u>First Semester</u>		<u>Second Semester</u>	
ELE 443 Electronics II	5	ELE 587 Biomedical Electronics II	
ELE 586 Biomedical Electronics I		or	3
or		ELE 589 Biomedical Engineering II	
ELE 588 Biomedical Engineering I	3	ELE 482 Biomedical Engineering Seminar	1
ELE 481 Biomedical Engineering Seminar	1	ZOO 442 Mammalian Physiology	3
General Education Elective	3	Professional Elective**	6
Math Elective	3	Free Elective	3
Professional Elective**	3		16
	18		

TOTAL CREDIT REQUIREMENTS: 140

*All students must demonstrate competence in the expression of ideas in written English. This requirement may be met by satisfactorily completing six credits in Division D (Human Communications). SCRATCH 000Z - Research Paper Writing - is strongly recommended as one of these courses.

At least 9 credits from Division A (Arts and Humanities) are required. At least 6 of these credits must be in one area of concentration.

At least 9 credits from Division C (Social Sciences) are required. At least 6 of these credits must be in one area of concentration.

MTH 244 - Differential Equations is strongly recommended during the Sophomore or Junior year.

**Select from approved list.
Change Professional Electives by deleting CSC 202 and inserting CSC 410.

d. CHANGE: Curriculum Requirements for B.S. in Electronic Computer Engineering:

FRESHMAN

<u>First Semester</u>		<u>Second Semester</u>	
CSC 201 Intro. to Computing I	3	PHY 213 Elem. Phys. I	3
CHM 101 Gen. Chem. Lecture I	3	PHY 285 Lab for Phys. I	1
CHM 102 Lab for Chem. I	1	MTH 142 Intermediate Calculus	3
MTH 141 Intro. to Calculus	3	EGR 102 Basic Graphics	1
MTH 141L Intro. to Calc. Lab	1	CSC 202 Intro. to Computing II	3
EGR 101 Intro. to Engineering	1	Electives	6
Elective	3		17
	15		

SOPHOMORE

<u>First Semester</u>		<u>Second Semester</u>	
ELE 209 Concepts in Elec. Engr.	3	ELE 205 Microprocessor Lab	3
ELE 210 Intro. to Elec. and Mag.	3	ELE 211 Lin. Sys. and Ckt. Thy. I	3
ELE 214 Intro. E.E. Lab	1	MTH 362 Adv. Engr. Math I	3
MTH 243 Calc. and Anal. Geom.	3	PHY 341 Modern Phys. I	3
Electives	6	CSC 311 Mach. & Assem. Lang. Prog.	3
	16		15

JUNIOR

<u>First Semester</u>		<u>Second Semester</u>	
ELE 312 Lin. Sys. and Ckts. II	4	ELE 313 Linear Systems	3
ELE 322 Electromag. Fields I	3	ELE 342 Electronics I	4
ELE 331 E.E. Materials	3	Electives	9
MTH 363 Adv. Engineering Math. II	3		16
Elective	3		
	16		

SENIOR

<u>First Semester</u>		<u>Second Semester</u>	
ELE 443 Electronics II	5	ELE 405 Digital Computer Design	3
Professional Electives	6	ELE 444 Electronics III	4
IDE 411 Eng. Statistics I	3	Professional Elective	3
MTH Elective	3	Electives	6
	17		16

TOTAL PROGRAM: 128 CREDITS

Electives: 27 credits Division A, C, D
6 credits free

Professional electives for the first semester are ELE 505 or 508 or 509 or 581 or 501, CSC 411 or 413, MCE 341; for the second semester ELE 436 or 506 or 561, CSC 411 or 412, MCE 341 or PHY 420.

Mathematics elective: MTH 215 or 451 or 471 or 472.

3. Department of Mechanical Engineering and Applied Mechanics

a. CHANGE: Credits for the following courses from "1" to "2":

- 1) MCE 315 Mechanical Engineering Laboratory IV
- 2) MCE 316 Mechanical Engineering Laboratory V

b. CHANGE: Curriculum requirements for B.S. in Mechanical Engineering and Applied Mechanics:

FRESHMAN

<u>First Semester</u>		<u>Second Semester</u>	
CHM 101 Gen. Chem.	3	ECN 123 Elements of Econ.	3
CHM 102 Chem. Lab	1	EGR 102 or 101 Graphics/Intro. Eng.	1
EGR 101 or 102 Intro Eng/Graphics	1	MTH 142 Inter. Calc.	3
MTH 141 Intro. Calc.	3	MCE 162 Statics	3
Div. A, C, D	3	PHY 213 Elem. Phys.	3
Div. A, C, D	3	PHY 285 Phys. Lab.	1
Div. A, C, D	3	Div. A, C, D	3
	17		17

SOPHOMORE

<u>First Semester</u>		<u>Second Semester</u>	
CVE 220 Mech. Matis.	3	ELE 220 P & A Circuits	3
MTH 243 Calc. Sev. Var.	3	MTH 244 Diff. Eqns.	3
MCE 212 ME Lab I	1	MCE 323 Kinematics	3
MCE 263 Dynamics	3	PHY 341 Modern Phys.	3

Human Communications, Humanities and Social Sciences 27 credits

1. All students must demonstrate competence in the expression of ideas in written English. This requirement may be met by satisfactorily completing six credits in "Division D" (Human Communications).
2. At least 9 credits from Division A (Arts and Humanities). At least 6 of these credits must be in one area of concentration.

C.A.C. #141--78-1-24

SOPHOMORE

<u>First Semester</u>		<u>Second Semester</u>	
PHY 214 Elem. Phys.	3	Div. A, C, D	3
PHY 286 Phys. Lab	1	Div. A, C, D	3
Div. A, C, D	3		18
	<u>17</u>		

JUNIOR

<u>First Semester</u>		<u>Second Semester</u>	
CHE 333 Materials	3	IDE 404 Eng. Econ.	3
ELE 221 Elec. Insts. & Devices	3	MCE 314 ME Lab III	1
MCE 313 ME Lab II	1	MCE 342 Mech. Eng. Thermo.	3
MCE 341 Fund. Thermo.	3	MCE 354 Fluid Mech.	3
MCE 372 Eng. Anal. I	3	MCE 366 Systems Eng.	3
Div. A, C, D	3	MCE 373 Eng. Anal. II	3
	<u>16</u>		<u>16</u>

SENIOR

<u>First Semester</u>		<u>Second Semester</u>	
IDE 440 Mfg. Process	3	MCE 316 ME Lab V	2
MCE 315 ME Lab IV	2	MCE 429 Comp. Design	3
MCE 423 Des. Mach. Elem.	3	Prof. Elective	3
MCE 448 Heat Transfer	3	Prof. Elective	3
Prof. Elective	3	Free Elective	3
Prof. Elective	3	Free Elective	3
	<u>17</u>		<u>17</u>

TOTAL CREDITS: 135

This curriculum is to take effect with students entering the First Semester of the Freshman Year in the Fall of 1978 - the Class of 1982.

C. Section 8.40.10 of the University Manual:

In order to prevent conflict between the revised curriculums in Electrical Engineering and Biomedical Electronics Engineering, the Curricular Affairs Committee recommends the following amendment to section 8.40.10 of the University Manual: change is underlined:

8.40.10. . . Every curriculum shall include at least six credit hours of free electives except for the Bachelor of General Studies, the B.S. curriculum in Chemical Engineering, the B.S. curriculum in Chemical and Ocean Engineering, the B.S. curriculum in Electrical Engineering and the B.S. curriculum in Biomedical Electronics Engineering.

SECTION III

On September 26, 1974, the Faculty Senate approved a B.S. Degree in Mechanical Engineering Technology to be offered jointly by URI and RIJC (#74-75--3). This program was approved by the Board of Regents on August 7, 1975.

C.A.C. #141--78-1-24

The program has been revised for fall 1978 and will appear in the 1978-79 Undergraduate Bulletin.

A. Informational Matters - Courses approved by the Faculty Senate on September 26, 1974:

College of Engineering

a. Department of Mechanical Engineering and Applied Mechanics - Mechanical Engineering Technology

- 1) MET 321 Machine Design I (1,3) Graphical and analytical study of linkages. Displacement, velocity and acceleration. Gear and gear train design. Analysis of cams and followers. Fundamental principles of stress and strain. Analysis of tension, compression, shear torsion, and combined stresses. Beams and columns. (Lec. 3) Pre: RIJC 470-283 or equivalent. Staff
- 2) MET 340 Elementary Thermodynamics (1,3) A study of the laws of thermodynamics, perfect gases and pure substances. Emphasis on the calculation of thermodynamic processes. Intended for students in the Mechanical Engineering Technology program. (Lec. 3) Pre: RIJC 200-102 and 470-151 or equivalent. Staff
- 3) MET 345 Thermodynamics Analysis (1,3) Continuation of 340 with emphasis on mixtures and combustion processes. Elementary concepts of cycle analysis. Introduction to Heat Transfer. Intended for students in the Mechanical Engineering Technology program. Pre: 340. Staff
- 4) MET 360 Elementary Fluid Mechanics (1,3) Properties of fluids. Fluid statics. Applications of continuity, energy, and momentum equations. Flow through pipes and around immersed bodies. Fluid machinery. (Lec. 3) Pre: RIJC 470-151 or equivalent. Staff
- 5) MET 421 Machine Design II (1,3) Study of machine elements such as screws, springs, keys, couplings, bearings, gears, brakes, and clutches. Topics include stress analysis, fatigue loading, stress concentrations. (Lec. 3) Pre: 321. Staff
- 6) MET 422 Design Project II (1,3) Students will work in small groups on an original mechanical design. Consideration will be given to stresses, deflections, materials, manufacturing methods and costs. Case studies of recent designs. (Lec. 3) Pre: 421. Staff
- 7) MET 440 Thermal Systems Design (1,3) Study and design of automotive combustion systems, refrigeration plants, air-conditioning systems, and heating installations. Energy balance studies of power plants. Intended for students in Mechanical Engineering Technology program. (Lec. 3) Pre: 345. Staff

b. Department of Industrial Engineering

- 1) IDE 331 Industrial Manufacturing Processes I (1,3) Introduction to the fundamentals of chip forming processes in manufacturing and their relation to materials deformation produced by the interaction of the cutting tools with the materials. Emphasis on what the processes will do, how they do it, their accuracy, relative advantages and limitations, and relation to surface integrity of machine surface. (Lec. 3) Pre: RIJC 800-293. Staff
- 2) IDE 332 Industrial Manufacturing Processes II (1,3) Application and practical fundamentals of forming, casting, joining processes in manufacturing and their relation to deformation, structure or state of material. Includes study of non traditional processes, such as electrodischarge machining, etc. (Lec. 3) Pre: 331. Staff

B. Informational Matters Approved by the Curricular Affairs Committee on January 23, 1978:

College of Engineering

Department of Mechanical Engineering and Applied Mechanics - Mechanical Engineering Technology

CHANGE: Title for MET 311:

MET 311 Mechanical Laboratory (1,1) Data analysis, curve plotting and fitting, basic measurement techniques and principles of error evaluation. Selection and use of mechanical engineering laboratory instrumentation. (Lab. 3) Pre: Junior standing in the Mechanical Engineering Technology program. Staff

C. Curricular Matters Which Require Confirmation by the Faculty Senate:

College of Engineering

a. Department of Chemical Engineering

ADD: CHE 331 Applied Metallurgy (1,3) Fundamentals of metallurgy with emphasis on physical and chemical properties and their relationship to metal structure, including alloy systems of engineering significance, microstructural control of properties (Lec. 2, Lab. 3) Not open for credit for engineering students, except in Mechanical Engineering Technology. Savage

b. Department of Mechanical Engineering and Applied Mechanics - Mechanical Engineering Technology

1)

CHANGE: Title and credits for MET 312:

MET 312 Mechanical Laboratory II (1,1) Comprehensive tests on prime movers and Mechanical apparatus, such as boilers, turbines, internal combustion engines, pumps, refrigeration equipment, compressors, etc. (Lab. 3) Pre: 311. Staff

2)

ADD: MET 313 Mechanical Laboratory III (1,1) Continuation of 312. (Lab. 3) Pre: 312. Staff

3)

CHANGE: Curriculum requirements for B.S. in Mechanical Engineering Technology:

First Year (RIJC)

First Semester

280-101 Composition I
450-180 Tech. Mathematics
260-103 Engr. Graphics
600-105 Physics
260-102 Intro. to Eng. & Tech.

Second Semester

3 200-102 or 103 Chemistry
4 450-181 Tech. Calculus I
3 470-181 Design Drafting
4 470-151 Mechanics (Sta. and Dyn.)
3 Liberal Arts Elective
17

3-5
4
3
4
3
17-1

Second Year (RIJC)

First Semester

450-282 Tech. Calculus II
470-292 Basic Mechanisms
240-103 Fund. of Electricity and Electronics
Liberal Arts Elective
Liberal Arts Elective

Second Semester

4 800-102 Manuf. Processes
4 470-283 Elem or Machine Des.
4 260-254 Mech. of Materials
260-256 Mech. Engr. Lab
3 800-293 Indus. Materials
3 240-104 Fund. of Contr. Elect.

1
3
3
1
3
4
15

Third Year (URI)

First Semester

MET 340 Elem. Thermodynamics
CHE 331 Appld. Metallurgy
IDE 331 Manuf. Processes I
CSC 201 Intro to Computing
General Education Elective

Second Semester

3 MET 345 Thermo. Analysis
3 MET 321 Machine Design I
3 IDE 332 Manuf Processes II
3 ECN 123 Economics
3 MET 311 Mech. Lab I
1 General Education Elective
15

3
3
3
3
1
3
16

C.A.C. #141--78-1-24

Fourth Year (URI)

<u>First Semester</u>		<u>Second Semester</u>	
MET 360 Intro to Fluid Mech.	3	MET 440 Thermal Sys. Design	3
MET 421 Machine Design II	3	MET 442 Design Project	3
MET 312 Mech. Lab II	1	MET 313 Mech Lab III	1
Professional Elective	3	Professional Elective	3
General Education Elective	3	General Education Elective	3
Free Elective	<u>3</u>	Free Elective	<u>3</u>
	16		16

Total Credits 130-132

This Curriculum to be Effective with the Class of 1980

(With the exception that the Class of 1980 is taking 450-191 Calculus I with the engineering students instead of 450-282. It is proposed to handle this variation by individual petitions.)