

ACADEMIC SENATE PROPOSAL TRACKING SHEET

(Document To Be Originated By Academic Senate Secretary On Canary Color Paper)

All proposals MUST have their originating college faculty body (Ex. Nursing, Technical Sciences, Arts & Sciences, Education) approval and must be signed by the submitter and the college chair/dean before being submitted to the academic senate secretary.

1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms) to the Academic Senate Secretary.
2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): Teacher Education (if applicable), General Education (if applicable), or Curriculum.
3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is forwarded to the next committee. If a committee disapproves the proposal, the originator may request that the item be forwarded to the next body for consideration. The committee will provide written rationale to the originator when a proposal is disapproved and the proposal is returned to the originator.
4. The Academic Senate considers the proposal and approves or disapproves. If approved, the proposal is forwarded to the Full Faculty for consideration. If the Academic Senate disapproves the proposal, the originator may request that the item be forwarded to the Full Faculty for consideration. The Academic Senate will provide written rationale to the originator when proposals are disapproved and the proposal is returned to the originator.
5. The Full Faculty considers academic senate approved proposals. If faculty approve, the proposal will then be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor.
7. The Chancellor approves or disapproves the proposal.

Subcommittee and Academic Senate college representatives will notify their respective colleges' of the progress of submitted proposals or the proposal may be tracked via the web page --

<http://www.msun.edu/admin/provost/asproposals.htm>

Documentation and forms for the curriculum process is also available on the web page:

<http://www.msun.edu/admin/provost/asforms.htm>

***** (If a proposal is disapproved at any level, it is returned through the Academic Senate secretary to the Chair/Dean of the submitting college who then notifies the originator.)

Proposal # <u>02-32</u>	Title: <u>Industrial Technology BS + ED BS Program Revision</u>
-------------------------	---

(proposal explanation, submitter and college chair/dean signatures on attached program/degree or course revision form)

Received by ACAD Senate Forwarded to Teacher Ed Council Forwarded to Gen Ed Committee Returned to ACAD Senate Forwarded to Curriculum Committee Returned to ACAD Senate for Vote Sent to Provost's office for Full Faculty vote Voted on at Full Faculty meeting Forwarded to Provost for Approval/Disapproval Forwarded to Chancellor for Approval/Disapproval Copies sent to originating college and registrar's office	Date <u>4/1/03</u> <u>4/1/03</u> <u>4/1/03</u> <u>4/1/03</u> <u>4/9/03</u> <u>4/29/03</u> <u>5/18/03</u> <u>5/24/03</u> <u>5/28/03</u>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%; text-align: center;">Approved _____</td> <td style="width: 50%; text-align: center;">Disapproved _____</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">Signature</td> <td style="border-top: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="text-align: center;">Approved _____</td> <td style="text-align: center;">Disapproved _____</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">Signature</td> <td style="border-top: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="text-align: center;">Approved _____</td> <td style="text-align: center;">Disapproved _____</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">Signature</td> <td style="border-top: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="text-align: center;">Approved _____</td> <td style="text-align: center;">Disapproved _____</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">Signature</td> <td style="border-top: 1px solid black; text-align: center;">Date</td> </tr> <tr> <td style="text-align: center;">Approved _____</td> <td style="text-align: center;">Disapproved _____</td> </tr> <tr> <td style="border-top: 1px solid black; text-align: center;">Signature</td> <td style="border-top: 1px solid black; text-align: center;">Date</td> </tr> </table>	Approved _____	Disapproved _____	Signature	Date	Approved _____	Disapproved _____	Signature	Date	Approved _____	Disapproved _____	Signature	Date	Approved _____	Disapproved _____	Signature	Date	Approved _____	Disapproved _____	Signature	Date
Approved _____	Disapproved _____																					
Signature	Date																					
Approved _____	Disapproved _____																					
Signature	Date																					
Approved _____	Disapproved _____																					
Signature	Date																					
Approved _____	Disapproved _____																					
Signature	Date																					
Approved _____	Disapproved _____																					
Signature	Date																					

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Industrial Tech BS Date 3-10-03

Submitter *[Signature]* signature Chair/Dean *[Signature]* signature Date 3.31.03

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

CIS	110 Introduction to Computers	3
DRFT	131 Graphics I	4
ENGL	111 Written Communication I	3
IT	110 Production Technology	3
IT	120 Communication Technology	3

Courses to be taken Spring Semester

CET	209 Introduction to Woodworking	3
DRFT	156 Introduction to CAD	3
EET	110 Electronics Survey I	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3
METL	155 Machining Processes	3
TECH	100 Industrial Safety/Waste Mgmt.	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CET	173 Arch. Cnst & Materials	3
IT	210 Energy/Power Technology	3
METL	140 Intro to Welding & Cutting	3
SPCH	141 Introduction to Speech	3
	Minor	3

Courses to be taken Spring Semester

AUTO	128 Engines	4
CET	213 Carpentry	3
IT	130 Construction Technology	3
ENGL	112 Written Communication II	3
	Minor	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Business Telecomm. & Networking	3
EET	305 Digital Systems	3
	Suggested Tech Course	3
	Lab Science (Area C)	3
	Minor	3

Courses to be taken Spring Semester

EET	450 Adv. Digital Systems	3
	Minor	3
	Gen Ed Dist (Area A)	3
	Gen Ed (Area B)	6

FRESHMAN YEAR

Courses to be taken Fall Semester

IT	100 Intro to Technology	3
DRFT	131 Graphics I	4
ENGL	111 Written Communication I	3
IT	109 Intro to Woodworking	3

Courses to be taken Spring Semester

IT	130 Construction Technology	3
DRFT	156 Introduction to CAD	3
ENGL	112 Written Communication II	3
CIS	110 Introduction to Computers	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

MATH	110 Math for Liberal Arts	4
MFGT	200 Mfgt. Processes & Materails	3
METL	155 Machining Processes	3
IT	209 Furniture & Cabinetmaking	3

Courses to be taken Spring Semester

AUTO	128 Engines	4
EET	110 Electronics Survey I	3
SPCH	141 Introduction to Speech	3
	OR	
SPCH	142 Interpersonal communication	3
	Minor	3
	Gen Ed (Area C)	3

JUNIOR YEAR

Courses to be taken Fall Semester

METL	315 Metallurgy	3
EET	305 Digital Systems	3
ENGL	366 Tech Writing & Editing (Area A)	3
	Minor	3
	Minor	3

Courses to be taken Spring Semester

EET	308 Industrial Electronics	4
	Minor	3
	Minor	3
	Gen Ed (Upper Div Area B)	3
	Gen Ed (Upper Div Area C)	3

SENIOR YEAR

Courses to be taken Fall Semester

	Gen Ed Area A (300-400)	3
	Elective	3
BUS	300 Mgmt. In Organizations	3
MFGT	427 Quality Assurance	3
	Minor	3

MFGT ~~IT~~
 BUS
 MFGT ~~IT~~

Courses to be taken Spring Semester

	Minor (Upper Division)	8
	Minor (lower Division)	3

MFGT ~~IT~~

SENIOR YEAR

Courses to be taken Fall Semester

341	CAD/CAM I	3
300	Mgmt. In Organizations	3
427	Quality Assurance	3
	Minor	3
	Gen Ed (Area A)	3

Courses to be taken Spring Semester

342	CAD /CAM II	3
	Minor	3
	Minor	3
	Elective	3
	Gen Ed (Area B)	3

120

120

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Industrial Tech Ed BS Date 3-31-03

Submitter *[Signature]* Chair/Dean *[Signature]* Date 3-31-03
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

CIS	110 Introduction to Computers	3
CET	209 Introduction to Woodworking	3
DRFT	131 Graphics I	4
EDUC	100 Foundations of Education	3
IT	110 Production Technology	3
IT	120 Communication Technology	3

Courses to be taken Spring Semester

ENGL	111 Written Communication I	3
DRFT	156 Introduction to CAD	3
EET	110 Electronics Survey I	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3
METL	155 Machining Processes	3
EDPY	215 Intro to Ed. Psychology	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

CET	173 Arch. Cnst & Materials	3
IT	210 Energy/Power Technology	3
METL	140 Intro to Welding & Cutting	3
SPCH	141 Introduction to Speech	3
PSYC	205 Human Growth/Develop. (Area B)	3

Courses to be taken Spring Semester

AUTO	128 Engines	4
CET	213 Carpentry	3
IT	130 Construction Technology	3
ENGL	112 Written Communication	3
HPE	235 Prin. Of Health/Sub Abuse	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Bus. Telecomm. & Netwrk (Area C)	3
EDPY	350 Ed. Psych. Exceptional Children	3
VOED	350 Prin. Of Applied Technology	3
	Lab Science (Area C)	3
	Gen Ed (Area A - Hum.)	3
	Suggested Tech Course	3

FRESHMAN YEAR

Courses to be taken Fall Semester

IT	100 Intro to Technology	3
IT	109 Intro to Woodworking	3
DRFT	131 Graphics I	4
ENGL	111 Written Communication I	3
	Gen Ed	3

Courses to be taken Spring Semester

IT	130 Construction Technology	3
DRFT	156 Introduction to CAD	3
ENGL	112 Written Communication	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3
IT METL	140 Intro to Welding & Cutting	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

IT METL	200 Mfgt. Process & Materials	3
IT METL	155 Machining Processes	3
IT	209 Furniture & Cabinetmaking	3
EDUC	100 Foundations of Education	3
PSYC	205 Human Growth/Develop. (Area B)	3
	Gen Ed	3

Courses to be taken Spring Semester

AUTO	128 Engines	4
EET	110 Electronics Survey I	3
SPCH	141 Introduction to Speech	3
	OR	
SPCH	142 Interpersonal Communication	3
EDPY	100 Intro to Ed Psych	3
HPE	235 Prin. Of Health/Sub Abuse	3
	Gen Ed	3

JUNIOR YEAR

Courses to be taken Fall Semester

EDUC	376 Assessment	2
EDPY	350 Ed. Psych. Exceptional Children	3
CIS	320 Computers In Education	3
	Technical Endorsement	6
	Gen Ed	3

Courses to be taken Spring Semester

EDUC	455	General Teaching Methods	3
VOED	360	Analysis/Prep of Inst. Materials	3
EDUC	445	T.,R, W, CT Across the Curric	2
EDUC	300	Intro. Curric. Planning/Practice	3
		Gen Ed (Area A - Hum.)	3

SENIOR YEAR

Courses to be taken Fall Semester

		Gen Ed (Area B - Soc Sci)	3
		Suggested Tech Course	3
		Suggested Tech Course	4
EDUC	321	Integrating Technology into Ed	1
EDUC	376	Assessment	2
VOED	370	Organizing/Teaching App Tech	3

Courses to be taken Spring Semester

EDUC	450	Sec. Ed Pract & Seminar	12
------	-----	-------------------------	----

Courses to be taken Spring Semester

EDUC	321	Integrating Technology into Ed	1
VOED	350	Prin. Of Applied Technology	3
EDUC	300	Intro. Curric. Planning/Practice	3
		308 Industrial Electronics	4
		Gen Ed	3
		Technical Endorsement	3

EET II

SENIOR YEAR

Courses to be taken Fall Semester

EDUC	445	T.,R, W, CT Across the Curric	2
EDUC	455	General Teaching Methods	3
VOED	360	Analysis/Prep of Inst. Materials	3
VOED	370	Organizing/Teaching App Tech	3
		Gen Ed	3

Courses to be taken Spring Semester

EDUC	450	Sec. Ed Pract & Seminar	12
------	-----	-------------------------	----

prog rev industrial tech ed bs 3/31/03

NEW ___ DROPPED ___ MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change IET prefix to IT prefix change title to Intro to Technology

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: IET 100 new prefix IT 100
Course title: ~~Introduction to Industrial & Engineering Technology~~ **Introduction to Technology**
Credits: 3 (sem)

Required by: Engineering Technology: Electronics Engineering Technology AAS.
Engineering Technology: Civil Engineering Technology AAS.
Engineering Technology: Civil Engineering Technology B.S.
Engineering Technology: Civil Engineering Technology Minor
Engineering Technology: Land Survey Technology (GIS) Certificate
Computer Information Systems AAS
Computer Engineering Technology AAS, BS.
Industrial Technology BS
Industrial Technology ED BS

Selective in:

Elective in:

General Educ:

Lecture: X

Lecture/lab:

Contact hrs. lecture: 3 hrs/wk

Contact hrs. Lab:

Current Catalog Description (include all prerequisites):

This course is a survey course designed to familiarize students with the educational requirements, talents, and responsibilities for careers related to industrial and engineering technology. The content of this course should provide the framework for materials to be presented in future math, science, industrial, and engineering technology courses. Course fee \$6.00

Course Objectives:

Upon completion of this course, the student will be able to:

1. Compare and select an appropriate field within industrial and engineering technology.
2. Compare and select an appropriate specialty within industrial and engineering technology.
3. Explain the roles and responsibilities of the engineer and technologist in our present society.
4. Distinguish the difference in the educational requirements of engineering and technologies majors.
5. Understand the history of engineering and technology.
6. Be familiar with the professional organizations and codes of ethics related to their chosen field.
7. Be able to perform research, problem solving and report techniques to departmental standards.
8. To begin the development of skills necessary for a team based approach to the solution of open-ended problems.
9. To utilize the types of communications skills important in effective design projects.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

IET 100 to IT 100 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change TECH prefix to IT

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology Department
Program Area: **Industrial Technology**
Date: March 2003

Course pref and no.: TECH 100 **new prefix IT (prefer IT 111)**
Course title: Industrial Safety/Waste Management
Credits: 2

Required by: Industrial Technology BS
Industrial Technology ED BS
Civil engineering Technology AAS, BS
Ag Operations Tech BS

Selective in:
Elective in:
General Educ:

Lecture: X
Lecture/lab:
Contract hrs. lecture: 2
Contact hrs. lab:

Catalog Description (Include all prerequisites:)

A course designed to familiarize the student with proper safety practices and procedures. Course content will include protective clothing, handling of hazardous materials, OSHA regulation, workmans comp., and first aid. Also, safety practices in using hand and power tools, scaffolds and ladders, chains and cables, compressed gasses, proper storage of tools and chemical, and handling of hazardous waste will also be addressed.

Course Outcome Objectives:

awareness of safety issues
proper use of tools and equipment
understanding of OSHA regulations and its role in Industrial Safety
understanding of proper hazardous waste handling and disposal procedures.

New instructional Resources needed (including: library materials, special equipment, and facilities).

Please note: approval does not indicate support for new faculty or additional resources.

Tech 100 to it 100

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change course prefix CET 209 to IT 209 (preferred number)
Remove CET 209 from catalog 109

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: CET 209 IT ~~209~~ 109
Course title: Introduction to Woodworking
Credits: 3

Required by: Industrial Technology BS
Industrial Technology ED BS

Selective in:
Elective in:
General Educ:

Lecture:
Lecture/lab:
Contract hrs. lecture:
Contact hrs. lab:

Current Catalog Description (Include all prerequisites:)

A study in the use of equipment and procedures used in wood construction. Areas of concentration will be wood and related materials, joint design, adhesives, fasteners, hand tools, machine tools, setup and procedures, and safety. Emphasis will be on dedicated objectives with a final project.

Course Outcome Objectives:

New instructional Resources needed (including: library materials, special equipment, and facilities).

Please note: approval does not indicate support for new faculty or additional resources.

Cet 209 to IT 209 course rev form

COURSE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

New course IT 209 (prefer # 209) Furniture & Cabinetmaking

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: IT 209
Course title: Furniture & Cabinetmaking
Credits: 3

Required by: Industrial Technology BS
Industrial Technology ED BS

Selective in:
Elective in:
General Educ:

Lecture:
Lecture/lab: X
Contract hrs. lecture: 1
Contact hrs. lab: 4

Proposed Catalog Description (Include all prerequisites:)

Students will be introduced to the principles and practices of furniture and cabinet making.

Course Outcome Objectives:

Students will complete selected projects using assigned processes.

New instructional Resources needed (including: library materials, special equipment, and facilities).

Please note: approval does not indicate support for new faculty or additional resources.

none

IT 209 new course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION ___ X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change ~~MFGT and EET (dual listed course)~~ prefix to ~~IT~~ prefix EET
remove ~~MFGT 308~~ And ~~EET 308~~ from ~~catalog~~

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: ~~EET/MFGT~~ 308 new prefix IT 308
Course title: Industrial Electronics
Credits: 4 (sem)

Required by: Industrial Technology BS
Industrial Technology Ed BS
AOT BS
Ag Tech AAS

Selective in:

Elective in:

General Educ:

Lecture:

Lecture/lab: X

Contact hrs. lecture: 3 hrs/wk

Contact hrs. Lab: 2 hrs/wk

Current Catalog Description (include all prerequisites):

This course focuses on basic power circuits and machines. Topics include power distribution systems, DC and AC motors, power control circuits, transducers, and industrial process control. Course fee \$8.00

Course Objectives:

The student will have demonstrated the ability to:

1. Identify parts of a control circuit.
2. Discuss the operation of selected control devices.
3. Explain the operation of industrial power supplies, invertors, & connectors.
4. Understand & construct open and closed loop systems.
5. Explain the operation of selected sensors.
6. Examine the characteristics of selected Ac & DC motors.
7. Perform experiments to verify theoretical concepts.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Mfgt 308 to IT 308

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

~~Change METL prefix to IT prefix~~ course description wording correction
Change number from 215 to 315

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology

Program Area: Industrial Technology

Date: March 2003

Course pref and no.: ^{3XX} METL ~~215~~ ~~now prefix IT 315 (preferred 315 number)~~

Course title: Metallurgy and Manufacturing Materials

Credits: 3 (sem)

Required by: Railroad Operations & Maintenance A.S.
Engineering Technology: Civil Engineering Technology B.S.

General Education: D

Lecture:

Lab: X

Contact Hrs. Lecture: 2 hrs./wk

Contact Hrs. Lab: 2 hrs./wk

Current Catalog Course Description (include prerequisites):

A study of metals, their composition, structure and properties, and their behavior when exposed to different conditions. This course also deals with failure analysis, destructive and non-destructive testing methods. Ceramics, plastics, adhesives, composites, and wood will be discussed.

Proposed Catalog Course Description (include prerequisites):

This course concerns a study of metals that includes their composition, structure, physical properties, and their behavior when exposed to different conditions. This course also deals with failure analysis, destructive and non-destructive testing welding methods. Course fee \$ 15.00

Course Objectives:

To gain knowledge and skill in:

Metal Identification	preheat heating
heat treatment	iron carbide system
failure analysis	hardness testing
etching	

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

metl 215 to it 215 course rev form

COURSE REVISION FORM

NEW _____ DROPPED X MAJOR REVISION _____ FOR INFORMATION ONLY

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop METL 125

Remove course from catalog

Please provide the following information:

Department: College of Technical Sciences; Industrial & Engineering Technology
Program Area: Metals Technology
Date: January 1998

Course pref and no.: METL 125
Course title: Automotive Machining and Tool Technology
Credits: 3 (sem)

Required by: Metals Technology, Associate
Automotive Technology, B.S., Broadfield, No Minor Required
Automotive Technology Minor
Machining Certificate

Lecture:
Lecture/Lab: X
Contract Hrs. Lecture: 1 hrs/wk
Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

An introductory course designed to acquaint the technology student with the tools, equipment, safety practices and materials utilized in a shop setting. Topics studied will include precision measurement and the identification, maintenance, and the safe use of manual and automotive machine tools, including cylinder boring bars, crankshaft grinder, honing machine, thread restoring tools, gear pullers, presses, and etc.

Course Objectives:

- 1.) To identify and solve problems associated with the safe set up, operation and inspection of automotive machine tools.
- 2.) To develop the skills necessary to use a variety of hand metalworking tools.

New and/or Additional Equipment Required:

Replacement and updating of equipment as needed.

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Room MT102 (Machine Shop) in the Metals Technology building

COURSE REVISION FORM

NEW _____ DROPPED X MAJOR REVISION _____ FOR INFORMATION ONLY _____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop METL 204 remove course description from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Metals Technology
Date: February, 1998

Course pref and no.: METL 204
Course title: Machinery's Handbook
Credits: 2 (sem)

Required by: Metals Technology, Associate
Engineering Technology: Manufacturing Technology, Minor (CAD,CAM)
Machining Certificate
Railroad Maintenance & Operations A.S.

Lecture: X
Lab:
Contact Hrs. Lecture: 4 hrs/wk (offered 8 week session)
Contact Hrs. Lab:

Catalog Course Description (include prerequisites):

An orientation to the theory, principles and technical data associated with circles, tolerances, fits, tapers, threads, screw thread measurement, indexing, splines, keys, and keysets, weights and measures, and metric conversions.

Course Objectives:

Student to demonstrate the ability to locate data associated with the metal, manufacturing and engineering trades.

Student will conclude that the data located is applicable and correct to the problem at hand.

New and/or Additional Equipment Required:

N/A

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Classroom equipped with chairs and tables.

Metl 204 drop course rev form

COURSE REVISION FORM

NEW _____ DROPPED MAJOR REVISION _____ FOR INFORMATION ONLY _____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop METL 220 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Metals Technology
Date: February, 1998

Course pref and no.: METL 220
Course title: Metal Shop Management and Fabriciation
Credits: 3 (sem)

Required by: Metals Technology AS
Welding Certificate

Lecture:

Lecture/Lab: X
Contact Hrs. Lecture: 1 hr/wk
Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

A continuation of METL 185 with emphasis on responsibilities, problems, and leadership skills in a fabrication shop. Students interact with customers concerning design of projects, estimating, ordering supplies, time schedules, assigning tasks, and supervising fabrication personnel. Prerequisite: METL 185

Course Objectives:

The student will be expected to understand or perform:

1. Proper design for strength, utility, and cost control in metal fabrication
2. Layout practice in metals
3. Correct welding procedure to control distortion and provide adequate strength
4. Blueprint reading, calculating bills of material, and cost of materials
5. Selection of best welding process for a given job, mass production

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

shop

metl 220 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop METL 265 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences:Industrial & Engineering Technology
Program Area: Metals Technology
Date: February, 1998

Course pref and no.: METL 265
Course title: Introduction to CNC/CAM
Credits: 3 (sem)

Required by: Metals Technology, Associate
Engineering Technology: Manufacturing Technology, BS, Minor required
Engineering Technology: Manufacturing Technology, Minor (CAD, CAM)
Engineering Technology: Manufacturing Technology, Associate
Machining Certificate
Applied Technology Education (5-12)

Lecture:
Lecture/Lab: X
Contact Hrs. Lecture: 1 hr/wk
Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

An introduction to automated manufacturing, computer numerical control and computer assisted manufacturing. Instruction will include the programming, editing, setup, and operation of CNC lathes and milling machines. Prerequisite: METL 155 or consent of instructor.

Course Objectives:

1. Students will learn and apply the principles of manually programming CNC equipment.
2. Students will demonstrate the ability to modify and edit CNC programs.
3. Students will create CNC programs considering automated work holding devices, tool changes, sequence of operations and tool path analysis.
4. Computer software will be utilized by the student to appraise the benefits of Computer Assisted Manufacturing (CAM) coding verses Manual Data Programming.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 265 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop METL 267 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Metals Technology
Date: February, 1998

Course pref and no.: METL 267
Course title: Mass Production
Credits: 3 (sem)

Required by: Metals Technology, Associate
Engineering Technology: Manufacturing Technology Minor (CAD,CAM) (Metals)
Engineering Technology: Manufacturing Technology, Associate
Engineering Technology: Manufacturing Technology, B.S.
Machining Certificate

Lecture:
Lecture/Lab: X
Contact Hrs. Lecture: 1 hr/wk
Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

A survey of mass production procedures associated with the manufacturing and finishing of machined products. Emphasis is placed on design for production, sequence of operations, jig and fixture application, and production organization and management. Work measurement, quality control, and production time analysis are recorded. Turret and tracer lathes, and computer controlled machine tools supported with CAM software, carbide tooling and tool change systems are utilized or studied. Prerequisite: METL 155 or consent of instructor.

Course Objectives:

To familiarize the student with problems and solutions encountered when mass producing a product or products.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

COURSE REVISION FORM

NEW ____ DROPPED MAJOR REVISION ____ FOR INFORMATION ONLY ____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

DROP METL 270 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Metals Technology
Date: February, 1998

Course pref and no.: METL 270
Course title: Product Development
Credits: 4 (sem)

Required by: Metals Technology, Associate
Engineering Technology: Manufacturing Technology, Associate
Engineering Technology: Manufacturing Technology, B.S.
Engineering Technology: Manufacturing Technology Minor
Machining Certificate
Railroad Maintenance & Operations A.S.
Applied Technology Education (5-12)

Lecture:

Lecture/Lab: X

Contact Hrs. Lecture:

Contact Hrs. Lab:

Catalog Course Description (include prerequisites):

Students will receive machining instruction in the manufacture, repair, or modification of new or existing products, using all available machine tools, tooling and inspection equipment. Lecture concentrates on unusual setups requiring thought and problem solving. Job shop and prototype work is performed in the lab. Prerequisite: METL 155 or consent of instructor.

Course Objectives:

The student will be expected to be able to perform most common machine operations including cutter

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 270 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop MFGT 365 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Engineering Technology: Manufacturing Technology
Date: February 1998

Course pref and no.: MFGT 365
Course title: Robotics and Programmable Controllers
Credits: 3 (sem)

Required By: Engineering Technology: Manufacturing Technology, B.S., No Minor
Engineering Technology: Manufacturing (Manufacturing Automation) Minor
Engineering Technology: Electronics Engineering Technology, B.S., No Minor

Lecture: X
Lecture/Lab:
Contact Hrs. Lecture: 3
Contract Hrs. Lab:

Catalog Course Description (include prerequisites):

This course provides a study of the planning, development, and control of robotic workcells through considering technical and management factors. Included is hands on experience with industrial robots.

Course Objectives:

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Mfgt 365 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop MFGT 371 remove course from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: MFGT 371
Course title: Jigs & Fixtures
Credits: 3

Required by: Engineering Technology: Manufacturing Technology, B.S., No Minor
Engineering Technology: Manufacturing (Metals) Minor

Selective in:

Elective in:

General Educ:

Lecture:

Lecture/lab: X

Contract hrs. lecture: 1

Contact hrs. lab: 4

Current Catalog Description (Include all prerequisites:)

Utilizing CAD/CAM and toolmaking technology, students will prepare and assign proper cutting tools, determine sequence of operations and set-up of CNC and other machines to produce patterns, molds, dies and/or custom designed jigs or fixtures. Tool and cutter grinding, insert selection, electro discharge machining theory and the refinement of job plans are studied. Prerequisite: METL 155, METL 270

Proposed Catalog Description (Include all prerequisites:)

A lab course utilizing previous course work and technical skills. Students will design, draw, plan, prepare and set-up CNC and/or manual machines to produce a custom designed jig, fixture or punch and die to facilitate the production of a product. A job plan will be prepared for the utilization of the tool. Students will also utilize various precision grinding machines to resharpen HSS drill bits, lathe and milling cutters. Carbide insert selection and criteria will be investigated. Prerequisites: METL 155, 270 or permission of instructor.

Course Outcome Objectives:

1. Student will develop skill in the identification, selection, installation and application of tungsten carbide inserts used on CNC machine tools. Tool data will be included in a job plan, inserted in the CNC machine tool register and utilized in the production of parts.
2. Utilizing precision grinding machines and related accessories, students will apply technical theory and knowledge necessary to re-sharpen various high speed steel milling machine cutters.
3. Students will study information concerning electric Discharge Machining (EDM) including: advantages, disadvantages, types, power supplies, dielectric fluid, flushing, electrode preparation and metal removal rate.
4. Students will machine a custom designed jig, fixture, tool, or pattern involving the above theory and skills.

New instructional Resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Mfgt 371 drop course rev form

NEW _____ DROPPED X MAJOR REVISION _____ FOR INFORMATION ONLY _____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

DROP MFGT 470; *remove course from catalogue*

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Engineering Technology: Manufacturing Technology
Date: 2-22-99

Course Prefix & No.: MFGT 470
Course Title: Tool Design
Credits: 3

Required by: Engineering Technology: Manufacturing Technology B.S.
Selective in
Elective in:
General Education:
Lecture:
Lecture/Lab: X
Contact hours lecture: 0
Contact hours lab: 6

Current Catalog Description (include all prerequisites):

The design and manufacturing of a permanent plastic injection mold. The theory and practices are applicable to polymers as well as metals. Topics covered will include: The injection molding press, plastics identification, volume and shrinkage computation. Mold design including parting line selection, ejector pin location and inserts. Students will investigate Electro Discharge Machining (EDM). Application of knowledge and skills from prerequisite courses is to be expected. Students in this course will design, fabricate, and produce parts from their own mold. Prerequisites include: DRFT 131, METL 155, METL 270, or permission of instructor.

Course Outcome Objectives:

The successful student will be able to:

- Analyze a product idea for alternate production methods/costs/quantity factors.
- Propose a solution w/rationale for materials and methods, including both product and tooling materials.
- Design tooling elements that will successfully produce the product to specifications.
- Provide for the application of the tooling design to real production machines (the tools must be usable in the appropriate setting and on an actual "primary machine".
- Specify all working allowances, tolerances, and clearances for construction.
- Annotate the drawings with all necessary information that would allow them to be bid on for fabrication.

New instructional resources needed (including: library materials, special equipment, and facilities). Please note: approval does not indicate support for new faculty or additional resources.

Mfgt 470 DROP course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

DROP CET 213 ; remove course from catalogue

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Engineering Technology: Civil Engineering Technology
Date: January 1998

Course pref and no.: CET 213
Course title: Carpentry
Credits: 3

Required by: Applied Technology Education Degree

Selective in:
Elective in:
General Educ:

Lecture:
Lecture/lab:
Contract hrs. lecture:
Contact hrs. lab:

Current/proposed Catalog Description (Include all prerequisites:)

This course is designed to provide the student with an introduction to carpentry. Topics covered include the use of special tools, measuring devices, wood types, framing, floor, wall and roof construction, and evaluation of alternative construction techniques.

Course Outcome Objectives:

New instructional Resources needed (including: library materials, special equipment, and facilities).
Please note: approval does not indicate support for new faculty or additional resources.

Cet 213 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

DROP IT 110 Production Technology from catalog

Please provide the following information:

Department: College of Technical Sciences
Program Area: Industrial Technology
Date: January 2001
Course Pref. & Title: IT 110 Production Technology
Credits: 3 (sem)
Required By: Industrial Technology Bachelor of Science with Minor Option
Industrial Technology Bachelor of Science with Education Option
Lecture:
Lecture/lab: X
Contact Hrs. Lecture 2
Contact Hrs. Lab: 2

Catalog Course Description (include prerequisites:

Manufacturing Technology is a course designed to give the student an overview of manufacturing processes. The main focus of the course will be on secondary processes and their role in an industrial environment. The lecture time will concentrate on industrial processing. Laboratory activities will simulate industrial processes to involve the student in the major categories of forming, separating, fabricating, conditioning, and finishing.

Course Objectives:

1. Explain and provide examples of the manufacturing processes listed in the course outline.
2. Identify and describe the manufacturing process by which different metal, wood, and plastic objects are made.
3. Demonstrate improved technical writing skills by completion of specified laboratory reports and term paper.
4. Demonstrate basic problem solving skills relating to manufacturing and production.
5. Perform precision measurement on laboratory work using industrial metrology equipment.
6. Perform basic planning functions for various operations
7. Calculate appropriate machining process variables
8. Perform basic operations safely in a laboratory setting.
9. Demonstrate the ability to use and care-for hand tools, equipment, and metrology apparatus.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

IT 110 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop IT 120 from catalog

Please provide the following information:

Department: College of Technical Sciences
Program Area: Industrial Technology
Date: January 2001
Course Pref. & Title: IT 120 Communications Technology
Credits: 3 (sem)
Required By: Industrial Technology Bachelor of Science with Minor Option
Industrial Technology Bachelor of Science with Education Option
Lecture:
Lecture/lab: X
Contact Hrs. Lecture 2
Contact Hrs. Lab: 2

Catalog Course Description (include prerequisites:

This course will familiarize students with the educational requirements, talents, and responsibilities for careers related technology. An overview of program planning, employment trends, technical developments, license requirements and future trends in the various programs is provided. Special emphasis is given to the communication of technical information. Students will demonstrate subject competencies through both individual and group activities. Topics covered also include ethical and environmental issues related to technology.

Course Objectives:

During this course you will:

1. Become familiar with the role of the career opportunities in the industrial and engineering technology fields and the requirements for professional licensure.
2. Understand the principles involved in professionalism and professional ethics.
3. Develop academic success strategies.
4. Develop methods of solving technical problems.
5. Develop techniques for presenting technical information.
6. Demonstrate skill in using the fundamental units used in English and metric measurement systems.
7. Solve problems involving estimating, computer solutions, and statistics.
8. Explain the principles of total quality management.
9. Use the Internet and college resources to research assigned topics.
10. Give oral and written reports and technical presentations.
11. Become familiar with recent developments in technology.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

IT 120 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED X MAJOR REVISION ___ FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Drop IT 210 from catalog

Please provide the following information:

Department: College of Technical Sciences
Program Area: Industrial Technology
Date: January 2001
Course Pref. & Title: IT 210 Energy/Power Technology
Credits: 3 (sem)
Required By: Industrial Technology Bachelor of Science with Minor Option
Industrial Technology Bachelor of Science with Education Option
Lecture:
Lecture/lab: X
Contact Hrs. Lecture 2
Contact Hrs. Lab: 2

Catalog Course Description (include prerequisites:

Energy/power technology will examine energy sources, power generation, power transmissions and control systems, resistance, power measurement, and devices that provide mechanical force. This course will concentrate on applications of electrical, electronic, mechanical, and power systems as they apply to the manufacturing, communications, and construction industries.

Course Objectives:

Upon completing of this course the student will be able to

1. Identify current sources of energy and evaluate their future role related to power production considering supply, transportation, efficiency, and environmental impact.
2. Describe the function of energy conversion devices including generators, turbines, solar panels, nuclear reactors, electric motors, and heat engines.
3. Perform accurate precision measurements, calculate mechanical advantage, and determine force and distance relationships for mechanical systems, including gears, pulleys, inclined planes, levers, and chain drives.
4. Apply technical principles to perform measurements and complete calculations on basic hydraulics, pneumatic systems, electrical, and electronic systems. Calculations will require conversion from English to metric system, the use of scientific notation, fractions, decimals, graphing, percentages, volume calculations, and area calculations.
5. Describe the function and applications of power, electrical, and electronic components including motor controls, distribution panels, resistors, switches, relays, circuit protection devices, capacitors, inductors, batteries, diodes, power supplies, contact and non-contact sensors, programmable controls, computers, and conductors.
6. Read basic electrical and electronic circuit drawings.
7. Given the technical specifications, the student will select basic electrical, mechanical, and electronic components from manufacturer's literature.
8. Given a typical machine used in manufacturing, printing, or construction, the student will identify the prime mover, describe how the machine transfers power, and calculate the speed and force relationships as power is transferred through the electrical, mechanical, and/or power system. In addition, the student will identify how the machine senses position and control motion.
9. Demonstrate safe working practices by wearing approved eye protection, using tools and equipment properly, and safely completing assigned laboratory activities.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

IT 210 drop course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):
Change METL prefix to IT prefix

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 140 **NEW PREFIX** IT 140
Course title: Intro. To Welding and Cutting
Credits: 3 (sem)
Required by:

Welding & Machining Certificate
Agriculture Technology, AAS (Selective)
Ag Mechanics Technology, AAS (sel)
Agriculture Mechanics Technology, B.S., No Minor (Selective) (F)
Automotive Technology, B.S., Broadfield, No Minor (Selective) (F)
Automotive Technology, Automotive Body, Associate (selective)
Diesel Technology, AAS (F)
Diesel Technology, B.S., Broadfield, (F)
Railroad Maintenance & Operations AAS.
Industrial Technology B.S. teaching/non-teaching

General Education: D
Lecture:
Lecture/Lab: X
Contact Hrs. Lecture: 1 hrs/wk
Contact Hrs. Lab: 4 hrs/wk

Current Catalog Course Description (include prerequisites):

An introductory course covering care and use of arc and oxyfuel welding equipment, regulators, torches, cylinders, power sources, electrodes, characteristics of operation, welding of steels and special applications. Introduction to techniques of welding mild steel. Mechanical properties of metals and types of joints are also covered. Course fee \$30.00

Course Objectives:

To provide an introduction to gas welding and arc welding principles and practices.
To gain an understanding of the safe use and care of welding equipment.
To identify different metals and select the appropriate processes and procedures to weld them.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

weld shop - oxyfuel equipment- arc welding equipment - metal cutting and grinding machines

METL 140 to IT 140 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT prefix course description wording change

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 150 **new prefix IT 150**
Course title: Shielded Metal Arc Welding
Credits: 3 (sem)

Required by: Welding Certificate
Railroad Maintenance & Operations

General Education: D

Lecture:

Lecture/Lab: X

Contract hrs. lecture: 1

Contact hrs. lab: 4

Current Course Description (include prerequisites):

A continuation of METL 140, additional training in welding horizontal, vertical, and overhead positions of mild steel. Emphasis is placed on alloys and special applications. Prerequisite: METL 140 or consent of instructor

Proposed Course Description (include prerequisites):

This course is a continuation of IT 140 and provides additional training in welding horizontal, vertical, and overhead positions of mild steel. Procedures for welding alloyed steels are also covered. Prerequisite: IT 140 or consent of instructor. Course fee \$30.00

Course Objectives:

Acquire skill in welding all positions
Understanding of welding techniques and procedures
Understanding welding symbols
Understand basic metallurgy

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 150 to it 150 course rev form

COURSE REVISION FORM

NEW _____ DROPPED _____ MAJOR REVISION _____ FOR INFORMATION ONLY _____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):
Change METL prefix to IT prefix

Please provide the following information:

Department: College of Technical Sciences: Industrial & Engineering Technology
Program Area: Industrial Technology
Date: February 2001

Course pref and no.: METL 154 new prefix IT 154
Course title: Gas Arc Welding Processing
Credits: 3 (sem)
Required by: Automotive Technology Associate, Automotive Body (S)
Automotive Body Certificate
Railroad Maintenance & Operations A.S.
Welding Certificate

General Education: D

Lecture:

Lecture/Lab: X

Contact Hrs. Lecture: 1 hr/wk

Contact Hrs. Lab: 4 hrs/wk

Current Course Description (include prerequisites):

Setup and operation of equipment and control of welding variables, types of power sources, and characteristics of operation, shielding gases, filler materials, quality assurance, and weld defects in gas metal arc welding, gas tungsten arc welding and flux cored arc welding. Prerequisite: METL 140 or consent of instructor.

Proposed Course Description (include prerequisites):

This introductory course covers the setup and operations of equipment, control of welding variables, types of power sources, characteristics of operation, shielding gases, filler materials, quality assurance, and weld defects in gas metal arc welding, gas tungsten arc welding and flux cored arc welding. Prerequisite: IT 140 or consent of instructor. Course fee \$30.00

Course Objectives:

The purpose of this course is to train the student in the operation of Gas Metal Arc, Flux Cored Arc, and Gas Tungsten Arc Welding processes. The student will also learn basic theory of each process.

To pass this course the student shall observe safety practices, pass written exams and satisfactorily weld assigned coupons.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 154 to it 154 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT prefix course description wording correction

Please provide the following information:

Department: College of Technical Science: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 155 **new prefix IT 155**
Course title: Machining Processes
Credits: 3 (sem)

Required by: Welding & Machining Certificates
 Railroad Maintenance & Operations A.S.
 Engineering Technology: Design Drafting Technology B.S.
 Engineering Technology: Design Drafting, Associate
 Diesel Technology, Broadfield, no minor required

Lecture:

Lecture/lab: X
Contact Hrs. Lecture: 1 hrs/wk
Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

This course is an introduction to machining. The student will become familiar with basic theory and operations performed on various manual and automated machine tools. Instruction includes the selection of speeds and feeds and the identification and conditioning of associated cutting tools. Course fee \$15.00

Course Objectives:

1. Acquire skills in the safe use of machine tools.
2. To be able to demonstrate an understanding of various machining operations.
3. To be able to distinguish the difference between types of machining equipment.
4. Make reasonable conclusions pertaining to precision measurements.
5. Consider various methods of work holding devises.
6. Make reasonable conclusions pertaining to cutting tools.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

METL 155 to IT 155 course rev form

COURSE REVISION FORM

NEW _____ DROPPED _____ MAJOR REVISION X FOR INFORMATION ONLY _____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT

Please provide the following information

Department: College of Technical Science: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 185 **new prefix IT 185**
Course title: Metal Fabrication
Credits: 3 (sem)

Required by: Welding Certificate
Railroad AAS

Lecture:

Lecture/lab: X

Contact Hrs. Lecture: 1 hrs/wk

Contact Hrs. Lab: 4 hrs/wk

Catalog Course Description (include prerequisites):

A study of equipment, metals, and procedures used to design, fabricate, and finish welded projects. Students combine skills of drafting, welding, and problem solving in developing functional projects.
Prerequisite: IT 140 or consent of instructor.

Course Objectives:

Concepts and skills which the student will be expected to understand or perform are:

1. Proper design for strength, utility, and cost control in metal fabrication.
2. Layout practice in metals.
3. Correct welding procedure to control distortion and provide adequate fabrication skills.
4. Blueprint reading, calculating bills of material, and cost of materials.
5. Selection of best welding process for a given job.
6. Mass production
7. Computation of structural loads and trailer axle placement.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 185 to it 185

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

**Change METL prefix to IT prefix course description wording change new prerequisites
Change number to 360**

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 260 **new prefix IT 360**
Course title: Repair and Maintenance Welding
Credits: 3 (sem)

Required by: Agriculture Mechanics Technology, Associate
Diesel Technology, BS, No Minor Required
Welding Certificate
Railroad Maintenance & Operations A.S.

General Education: D

Lecture:

Lecture/Lab: X

Contact Hrs. Lecture: 1 hr/wk

Contact Hrs. Lab: 4 hrs/wk

Current Catalog Course Description (include prerequisites):

Theory and practice in repair and maintenance of commonly used metals using oxygen fuel, shielded metal arc (SMAW), gas metal arc welding (GMAW), and gas tungsten arc (GTAW) welding processes. Students work on practice exercises and "live" projects. Prerequisites: METL 140 and METL 215 or consent of instructor

Proposed Catalog Course Description (include prerequisites):

This course provides theory of practical metallurgy and practice in the repair and maintenance of commonly used metals using oxygen fuel, shielded metal arc (SMAW), gas metal arc welding (GMAW), and gas tungsten arc (GTAW) welding processes. Laboratory work will include both practice and "live" repairs. Prerequisites: IT 140 and IT 154 or consent of instructor Course fee \$25.00

Course Objectives:

The student will be expected to understand or perform:

Metal Identification	Welding process selection
Joint design	Metal preparation
Electrode selection	Pre- and post-heat treatments
Cast iron repair	Non-ferrous metal repair
Distortion control	

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):
metl 260 to it 360 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT prefix course description wording change

Change course number to 355

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 285 **new prefix and number prefer IT 355**
Course title: Welding Certification Procedures I
Credits: 3 (sem)

Required by: Welding Certificate

General Education: D
Lecture:
Lecture/Lab: X
Contact Hrs. Lecture: 1 hr/wk
Contact Hrs. Lab: 4 hrs/wk

Current Catalog Course Description (include prerequisites):

Procedures and development of manual skills necessary to perform welds acceptable under a structural welding code. Prerequisites: METL 150 or consent of instructor.

Proposed catalog Course Description (include prerequisites):

This course includes identification of appropriate procedures and the development of manual skills necessary to perform welds acceptable under a structural welding code. Prerequisites: IT 150 or IT 154 or consent of instructor. Course fee \$20.00

Course Objectives:

1. Identification of the limitations of all essential variables in a performance certification.
2. Selection and production of appropriate joint designs, coupon preparation, inspection parameters, and identification of the extent of student performance qualifications.
3. The student will be able to relate the appropriate certification to their career goals.
4. The student will understand the parameters of test longevity.
5. The student will understand and perform under retest conditions.
6. The student will successfully complete selected weld performance certifications.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 285 to it 355

COURSE REVISION FORM

NEW ____ DROPPED ____ MAJOR REVISION X FOR INFORMATION ONLY ____

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT prefix course description wording change

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 356 **new prefix IT 356**
Course title: Welding Certification Procedures II
Credits: 3 (sem)

Required by:

Lecture:

Lecture/Lab: X

Contact Hrs. Lecture:

Contact Hrs. Lab: arr 6 hrs/wk

Current Catalog Course Description (include prerequisites):

Laboratory applications to be taken following **IT 355**. Prerequisite: **IT 355**.

Course Objectives:

The purpose of this course is to provide additional techniques and skills necessary to successfully undertake various performance certifications. Students will select codes, identify essential variables, and develop welding procedure for welder performance certifications appropriate to their career goals.

Objectives:

1. Selection and production of appropriate joint designs
2. Coupon preparation of various certification procedures
3. Identification of inspection parameters
4. Advancement in the extent of student performance qualification

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 356 to it 356

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change METL prefix to IT prefix course description wording change

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: METL 357 **new prefix IT 357**
Course title: Welding Certification Procedures III
Credits: 3 (sem)

Required by:

General Education: D

Lecture:

Lecture/Lab: X

Contact Hrs. Lecture:

Contact Hrs. Lab: arr 6 hrs/wk

Catalog Course Description (include prerequisites):

Laboratory applications to be taken following IT 356. Prerequisite: IT 356.

Course Objectives:

This course is a continuation of IT 356. The purpose of this course is to provide additional opportunities for students to successfully select and perform various performance certifications. Course fee \$20.00

Objectives:

1. Selection and production of appropriate joint designs
2. Coupon preparation of various certification procedures
3. Identification of inspection parameters
4. Advancement in the extent of student performance qualification

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Metl 357 to it 357 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change MFGT prefix to IT prefix

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: MFGT 200 **new prefix IT 200**
Course title: Manufacturing Processes and Materials
Credits: 3 (sem)
Lecture: X
Lecture/Lab:
Contact Hrs. lecture: 3 hrs/wk
Contract Hrs. lab:

Required in which programs: Design Drafting Technology BS, AAS
Industrial Technology ED BS
Industrial Technology BS

Catalog Course Description (include prerequisites):

An introduction to the fundamentals of manufacturing. Capabilities, typical applications, advantages, and limitations of material and process selection for manufacturing. Course fee \$10.00

Course Objectives:

1. Be able to define or describe in writing several of the processes used in manufacturing , descriptions of materials, associated affects of manufacturing on the consumer and the product.
2. Be able to use association, joining descriptions of materials and terms related to the use of materials with the materials being described.
3. Be able to use association, joining descriptions of manufacturing processes and terms related to the processes to the manufacturing process and terms being described.
4. From the description of a consumer product be able to assign and describe in writing a manufacturing process and related environmental, engineering, and consumer concerns to the process.
5. From a given group of consumer products, be able to list the materials used, and identify some basic qualities about the materials.
6. Perform tasks and generate data on manufacturing materials that localize (helps to define) engineering information about the materials.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Mfgt 200 to it 200 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change MFGT prefix to IT prefix course description wording change
Remove MFGT 341 from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: March 2003

Course pref and no.: MFGT 341 **new prefix IT 341**
Course title: CAD/CAM Applications
Credits: 3 (sem)

Lecture:
Lecture/lab: X
Contact hrs. lecture: 2
Contact hrs. lab: 2 hrs/wk

Required in which programs:

Industrial Technology BS
Industrial Technology Ed BS
Design Drafting Technology B.S., Minor (sel)

Catalog Course Description (include prerequisites):

A course in the principles and application of CAD/CAM and CNC technology. Students will solve problems associated with coordinate geometry, data base exchange, G and M code programming.
Prerequisites: DRFT 156 and IT 155. Course fee \$10.00

Course Objectives:

Through the duration of this course each student will:

1. understand the significance of CAD/CAM generated data bases.
2. demonstrate the techniques necessary to produce a multi-view drawing using AutoSKETCH.
3. demonstrate an understanding of CAM software by creating a drawing, tool paths, .NCI files, and .NC files.
4. understand the significance of sending a .DXF file from a CAD package to a CAM package.
5. download a completed CNC file to a CNC milling machine and successfully create the part.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Mfgt 341 to it 341 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature _____ Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change MFGT prefix to IT prefix course description wording change

Remove MFGT 342 from catalog

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology
Program Area: Industrial Technology
Date: February 1998

Course prefix and no.: MFGT 342 new prefix IT 342
Course title: CAD/CAM II
Credits: 3 (sem)

Required By: Industrial Technology BS
Industrial Technology ED S
Design Drafting Technology B.S., minor (sel)

Lecture:
Lecture/lab: X
Contact hrs. lecture: 2
Contact hrs. lab: 2 hrs. wk

Catalog Course Description (include prerequisites):

A continuation in the study of G and M codes from IT 341 with emphasis on 3 dimensional CAD/CAM tool path definition. Students will use 3 dimensional models to create sweep surfaces, ruled surfaces, projected surfaces, surface revolutions, and coons surfaces. Prerequisite: IT 341. Course fee \$10.00

Course Objectives:

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):

Mfgt 342 to it 342 course rev form

COURSE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY ___

College College of Technical Sciences Program Area Industrial Technology Date 3-30-03

Submitter _____ Chair/Dean _____ Date 3-31-03
Signature Signature (indicates "college" level approval)

Please provide a brief explanation & rationale for the proposed revision(s):

Change MFGT prefix to IT prefix

Please provide the following information:

Department: College of Technical Sciences: Industrial Technology

Program Area: Industrial Technology

Date: March 2003

Course prefix and no.: MFGT 427 new prefix IT 427

Course title: Quality Assurance

Credits: 3 (sem)

Required By: Industrial Technology BS
Industrial Technology Ed BS
Engineering Technology: Civil Engineering Technology, B.S.

Lecture: X

Lecture/lab:

Contact hrs. lecture: 3 hrs/wk

Contact hrs. lab:

Catalog Course Description (include prerequisites):

Industrial methods of insuring quality in manufacturing through application of codes and standards, sampling techniques, control charts and implementation of a documentable quality assurance program.

Prerequisite: MATH 110 or higher.

Course Objectives:

Instructional Objectives:

1. Be able to define quality control and statistical process control.
2. Be able to prepare Pareto charts, flow charts, and cause and effect diagrams.
3. From a group of data be able to prepare information on average, mean, range, and standard deviation.
4. From a group of data be able to identify and explain attributes of the data.
5. From a group of data be able to prepare process charts.
6. Be able to collect data through the use of several measurement devices.
7. From information on a process chart be able to identify quality information in the manufacturing process and/or describe corrections to the process.
8. Be able to compare information gained from a process chart and/or control charts to specific qualities of the product.
9. Be able to relate engineering data assigned to the product and relate that to the process information.
10. Be able to relate process information to cost analysis of the manufacturing process.

New and/or Additional Equipment Required:

New and/or Additional Library Resources Required:

Special Facility Needs Required: (laboratory space, specialized labs, rooms to facilitate large groups, computer labs):
Mfgt427 to it 427 course rev form

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Diesel Technology AAS Date 10-20-02

Submitter _____ Chair/Dean _____ Date 10-25-02
signatures on original signatures on original

Please provide a brief explanation & rationale for the proposed revision(s)

Add MAAS 106 as a choice for students in the Diesel AAS degree

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Either Semester

METL	140 Intro. To Welding & Cutting	3		
ENGL	111 Written Communication I	3		
SPCH	141 Fundamentals of Speech	3		

M
IT

140 Intro. To Welding & Cutting	3
---------------------------------	---

Courses to be taken Fall Semester

DIES	104 Introduction to Diesel Engines	3		
	AND			
DIES	114 Introduction to Diesel Engines Lab	3		
	OR			
DIES	115 Intro. to Diesel Fuel Systems	4		
ATDI	134 Auto/Diesel Electrical/Electrnc Sys. I	4		
DIES	204 Intro. To Hydraulics & Pneumatics	2		
DIES	214 Intro. To Hydraulics/ Pneum. lab	2		

Courses to be taken Spring Semester

DIES	104 Introduction to Diesel Engines	3		
	AND			
DIES	114 Introduction to Diesel Engines Lab	3		
	OR			
DIES	115 Intro. to Diesel Fuel Systems	4		
ATDI	265 Heating & Air Conditioning	4		

SOPHOMORE YEAR

Courses to be taken Either Semester

MAAS	106 Math for Applied Science	3		
MATH	110 Math for Liberal Arts	4		
	OR			
MATH	112 College Algebra	3		
CIS	110 intro to Computers	3		
	Gen Ed Dist (Area A, B, or C)	3		

Courses to be taken Fall Semester

ATDI	264 Auto/Diesel Electrical/Electrnc Sys. II	4		
DIES	216 Heavy Duty Power Trains	4		
DIES	262 Diesel Engine Diagnosis & Repair	2		
DIES	272 Diesel Engine Diagnosis & Repair Ia	4		

Courses to be taken Spring Semester

ATDI	257 Automatics	4		
DIES	219 Heavy Duty Chassis	4		
DIES	273 Diesel Shop Practices	4		

PROGRAM/DEGREE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY

College College of Technical Sciences Program Area Diesel Technology BS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Either Semester

METL	140 Intro. To Welding & Cutting	3	IT	140 Intro. To Welding & Cutting	3
ENGL	111 Written Communication I	3			
SPCH	141 Fundamentals of Speech	3			

Courses to be taken Fall Semester

DIES	104 Introduction to Diesel Engines	3
	AND	
DIES	114 Introduction to Diesel Engines Lab	3
	OR	
DIES	115 Intro. to Diesel Fuel Systems	4
ATDI	134 Auto/Diesel Electrical/Electrnc Sys. I	4
DIES	204 Intro. To Hydraulics & Pneumatics	2
DIES	214 Intro. To Hydraulics/ Pneum. lab	2

Courses to be taken Spring Semester

DIES	104 Introduction to Diesel Engines	3
	AND	
DIES	114 Introduction to Diesel Engines Lab	3
	OR	
DIES	115 Intro. to Diesel Fuel Systems	4
ATDI	265 Heating & Air Conditioning	4

SOPHOMORE YEAR

Courses to be taken Either Semester

MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3
CIS	110 intro to Computers	3
	Gen Ed Dist (Area A, B, or C)	3

Courses to be taken Fall Semester

ATDI	264 Auto/Diesel Electrical/Electrnc Sys. II	4
DIES	216 Heavy Duty Power Trains	4
DIES	262 Diesel Engine Diagnosis & Repair	2
DIES	272 Diesel Engine Diagnosis & Repair Ia	4

Courses to be taken Spring Semester

ATDI	257 Automatics	4
DIES	219 Heavy Duty Chassis	4
DIES	273 Diesel Shop Practices	4

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION X FOR INFORMATION ONLY

College College of Technical Sciences Program Area Diesel Technology BS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Either Semester

METL	140 Intro. To Welding & Cutting	3	IT	<input checked="" type="checkbox"/>	140 Intro. To Welding & Cutting	3
ENGL	111 Written Communication I	3				
SPCH	141 Fundamentals of Speech	3				

Courses to be taken Fall Semester

DIES	104 Introduction to Diesel Engines	3
	AND	
DIES	114 Introduction to Diesel Engines Lab	3
	OR	
DIES	115 Intro. to Diesel Fuel Systems	4
ATDI	134 Auto/Diesel Electrical/Electrnc Sys. I	4
DIES	204 Intro. To Hydraulics & Pneumatics	2
DIES	214 Intro. To Hydraulics/ Pneum. lab	2

Courses to be taken Spring Semester

DIES	104 Introduction to Diesel Engines	3
	AND	
DIES	114 Introduction to Diesel Engines Lab	3
	OR	
DIES	115 Intro. to Diesel Fuel Systems	4
ATDI	265 Heating & Air Conditioning	4

SOPHOMORE YEAR

Courses to be taken Either Semester

MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3
CIS	110 intro to Computers	3
	Gen Ed Dist (Area A, B, or C)	3

Courses to be taken Fall Semester

ATDI	264 Auto/Diesel Electrical/Electrnc Sys. II	4
DIES	216 Heavy Duty Power Trains	4
DIES	262 Diesel Engine Diagnosis & Repair	2
DIES	272 Diesel Engine Diagnosis & Repair Ia	4

Courses to be taken Spring Semester

ATDI	257 Automatics	4
DIES	219 Heavy Duty Chassis	4
DIES	273 Diesel Shop Practices	4

JUNIOR YEAR

Courses to be taken Either Semester

METL	155 Machining Processes	3
	Gen Ed Dist (Area B)	3
	Gen Ed Dist (Area B)	3
ENGL	366 Tech. Writing/Editing (Area A)	3
ENGL	112 Written Communicaiton II	3

IT 155 Machining Processes 3

Courses to be taken Fall Semester

ATDI	384 Auto/Diesel Electronics Apps	4
METL	260 Repair & Maintenance Welding	3

IT 360 Repair & Maintenance Welding 3

Courses to be taken Spring Semester

DIES	314 Hydraulics & Pneumatics II	4
------	--------------------------------	---

SENIOR YEAR

Courses to be taken Either Semester

TSCI	304 Fuels/Lubricants (Area C)	3
	Gen Ed Dist (Area A)	3

Courses to be taken Fall Semester

ATDI	400 Shop Procedures II	2
DIES	420 Diesel Shop Mgmt.	2
DIES	440 Advanced Fuel Systems	4

Courses to be taken Spring Semester

DIES	434 Current Model Year Tech (Capstone)	3
DIES	450 Diagnosis of Power Shifts & HD Autc	4
	Electives	6
	OR	
DIES	479 Cooperative Education	6

PROGRAM/DEGREE REVISION FORM

NEW ____ **DROPPED** ____ **MAJOR REVISION** X **FOR INFORMATION ONLY**

College College of Technical Sciences **Program Area** Auto Body AAS **Date** 10-20-02

Submitter _____ **Chair/Dean** _____ **Date** 10-25-02
signatures on original signatures on original

Please provide a brief explanation & rationale for the proposed revision(s)

add MAAS 106 as a choice for students in the Auto Body AAS degree

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Either Semester

CIS 110 Introduction to Computers 3
ENGL 111 Written Communication I 3
SPCH 141 Fundamentals of Speech 3

Courses to be taken Fall Semester

BODY 140 Panel Adjustment & Glass 2
BODY 141 Intro. Of Metal Refinishing 3
BODY 142 Metal Repair Lab 3
METL 154 Gas Arc Welding Processing 3
METL 140 Intro. To Welding & Cutting 3

IT 154 Gas Arc Welding Processing 3
IT 140 Intro. To Welding & Cutting 3

Courses to be taken Spring Semester

AUTO 220 Auto Steering & Suspension 4
BODY 143 Refinishing 3
BODY 144 Refinishing Lab 3
ART 151 Two-Dimensional Design II 3

SOPHOMORE YEAR

Courses to be taken Either Semester

MAAS 106 Math for Applied Science 3
MATH 112 College Algebra 3
OR
MATH 110 Math for Liberal Arts 4

Courses to be taken Fall Semester

BODY 215 Prin. Of Unibody Repair Fund. 3
BODY 216 Unibody Repair Technology 3
ATDI 134 Auto/Diesel Electrical/Elect Sys I 4

Courses to be taken Spring Semester

ATDI 265 Heating & Air Conditioning 4
BODY 241 Estimating 4
BODY 243 Shop Production 3
BODY 244 Shop Production Lab 3



PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Design Drafting Tech AAS Date xxxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

CIS	110 Intro To Computers	3		
CET	173 Arch. Cnst. & Materials	3		
DRFT	131 Technical Graphics I	4		
MATH	112 College Algebra	3		
METL	155 Machining Processes	3	IT	155 Machining Processes 3

Courses to be taken Spring Semester

DRFT	132 Descriptive Geometry	3
DRFT	156 Intro. to CAD	3
SPCH	141 Fund. of Speech	3
ENGL	111 Written Communication I	3
MATH	125 Trigonometry (Area C)	2
EET	110 Electronics Survey I	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

DRFT	256 3D CAD	3		
MFGT	200 Manufacturing Processes	3	IT	200 Manufacturing Processes 3
DRFT	201 Residential Drafting	3		

Select one of the following tracks

ADDA DESIGN DRAFTING TRACK

CET	221 Engineering Mechanics	3
PHYS	231 Fund of Physics (Area C)	3
PHYS	234 Fund of Physics Lab (Area C)	1

DRAFTING TECHNOLOGY TRACK

	Advisor Approved Elective	3
PHYS	114 Found. of Phys. Sci.(Area C)	4

Courses to be taken Spring Semester

DRFT	205 Machine Drafting	3
DRFT	244 Topographic Drafting/GIS Apps.	3
CIS	171 Database Level I	3

Select one of the following tracks

ADDA DESIGN DRAFTING TRACK

	Advisor Approved Elective	3
CET	181 Surveying	3

DRAFTING TECHNOLOGY TRACK

	Advisor Approved Elective	3
	Advisor Approved Elective	3

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Design Drafting Tech BS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

CIS	110 Intro To Computers	3			
CET	173 Arch. Cnst. & Materials	3			
DRFT	131 Technical Graphics I	4			
MATH	112 College Algebra	3			
METL	155 Machining Processes	3	IT	155 Machining Processes	3

Courses to be taken Spring Semester

DRFT	132 Descriptive Geometry	3
DRFT	156 Intro. to CAD	3
SPCH	141 Fund. of Speech	3
ENGL	111 Written Communication I	3
MATH	125 Trigonometry (Area C)	2
EET	110 Electronics Survey I	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

DRFT	256 3D CAD	3			
MFGT	200 Manufacturing Processes	3	IT	200 Manufacturing Processes	3
DRFT	201 Residential Drafting	3			

Select one of the following tracks

ADDA DESIGN DRAFTING TRACK

CET	221 Engineering Mechanics	3
PHYS	231 Fund of Physics (Area C)	3
PHYS	234 Fund of Physics Lab (Area C)	1

DRAFTING TECHNOLOGY TRACK

	Advisor Approved Elective	3
PHYS	114 Found. of Phys. Sci.(Area C)	4

Courses to be taken Spring Semester

DRFT	205 Machine Drafting	3
DRFT	244 Topographic Drafting/GIS Apps.	3
CIS	171 Database Level I	3

Select one of the following tracks

ADDA DESIGN DRAFTING TRACK

	Advisor Approved Elective	3
CET	181 Surveying	3

DRAFTING TECHNOLOGY TRACK

	Advisor Approved Elective	3
	Advisor Approved Elective	3

JUNIOR YEAR

Courses to be taken Fall Semester

DRFT	336 Process Piping	3
ENGL	112 Written Communication II	3
MFGT	341 CAD/CAM Applications	3
	**Electives (300-400 level)	3
ART	Gen Ed Dist (Area A)	3

IT	341 CAD/CAM Applications	3
----	--------------------------	---

Courses to be taken Spring Semester

DRFT	416 Industrial CAD Modeling	3
MFGT	342 CAD/CAM II	3
DRFT	356 CAD Presentation	4
	Gen Ed Dist (Area A)	3

IT	342 CAD/CAM II	3
----	----------------	---

SENIOR YEAR

Courses to be taken Fall Semester

DRFT	409 Industrial Product Design	3
MFGT	427 Quality Assurance	3
DRFT	328 Technical Illustration	3
	Elective	3
	Gen Ed Dist (Area B)	3

IT	427 Quality Assurance	3
----	-----------------------	---

Courses to be taken Spring Semester

DRFT	456 CAD Presentation II	3
	Elective (300-400)	1
	Elective	3
DRFT	457 Architectural CAD	3
	Gen Ed Dist (Area B)	3

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Ag Mech Tech AAS Date 3-31-03

Submitter Wanda Berry Chair/Dean _____ Date _____
signatures on original signatures on original

Please provide a brief explanation & rationale for the proposed revision(s)

**CHANGE METL 260 TO IT 154 (IT CURRICULUM RENUMBERED METL 260 TO IT 360
 ASSOCIATE DEGREE STUDENTS ARE NOT SUPPOSED TO TAKE 300 LEVEL COURSES**

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

AGMT	130 Intro. To Agricultural Tractors**	3
	OR	
AGMT	210 Tillage & Planting Implements*	3
CIS	110 Intro To Computers	3
DIES	104 Intro. To Diesel Engines	3
DIES	114 Intro. To Diesel Engines Lab	3
ENGL	111 Written Communication I	3
METL	140 Intro. To Welding & Cutting	3

Courses to be taken Spring Semester

AGMT	110 Intro to Ag Machines and Equipment	2
AGMT	120 Forage Implements**	3
	OR	
AGMT	205 Grain Harvesting Equipment*	3
ATDI	134 Auto/Diesel Electrical/Electronic Sys.	4
MAAS	106 Math for Applied Science	3
MATH	112 College Algebra	3
	OR	
MATH	110 Math for Liberal Arts	4
DIES	115 Intro. To Diesel Fuel Systems	4

SOPHOMORE YEAR

Courses to be taken Fall Semester

AGMT	210 Tillage & Planting Implements*	3		
	OR			
AGMT	130 Intro. To Agricultural Tractors**	3		
DIES	216 Heavy Duty Power Trains	4		
DIES	262 Diesel Engine Diagnosis & Repair	2		
DIES	272 Diesel Engine Diag. & Repair Lab	4		
METL	260 Repair & Maintenance Welding	3	IT	154 Gas Arc Welding Processing 3

Courses to be taken Spring Semester

AGMT	205 Grain Harvesting Equipment*	3
	OR	
AGMT	120 Forage Implements**	3
ATDI	265 Heating & Air Conditioning	4
DIES	204 Intro. To Hydraulics & Pneumatics	2
DIES	214 Intro. To Hyd. & Pneumatics Lab	2
SPCH	141 Fundamentals of Speech	3
	OR	
SPCH	142 Interpersonal Communication	3
	Gen Ed Dist.(Area B)	3

67 or 68

67 or 68

** Offered even numbered academic years (ex: 2002-2003)

* Offered odd numbered academic years (ex: 2003-2004)

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Ag Technology AAS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken ANY Semester

CIS	110 Intro To Computers	3
ENGL	111 Written Communication I	3
SPCH	141 Fundamentals of Speech	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3

Courses to be taken Fall Semester

AG	100 Leadership Development	2
AG	101 Animal Science	3
AG	102 Plant Science	3
AG	105 Ag. Marketing & Economics	3
AG	150 Agricultural Computing	3

Courses to be taken Spring Semester

AG	125 Farm Management	3
	Selectives	6
BIOL	151 Essential of Biology (Area C)	4
	OR	
CHEM	111 General Chemistry (Area C)	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

AG	218 Crop Production	4
AG	254 Forage & Range Mgmt.	4
	Selectives	6

Courses to be taken Spring Semester

AG	204 Soils	4
AG	230 Agricultural Pest Mgmt.	4
AG	244 Livestock Feeding	4

AGRIBUSINESS EMPHASIS SELECTIVES

ACCT	261 Principles of Accounting I (F)	3
ACCT	262 Principles of Accounting II (S)	3

AG	245 Livestock Production (F)	4
AG	279 Cooperative Education (F/S)	6
BUS	100 Intro. To Business (F)	3
BUS	245 Personal Finance (F)	3
BUS	250 Business Statistics (F)	3
BUS	271 Legal Environ. of Business (S)	3
ECON	241 Microeconomic Principles (F)	3

AGRI TECHNOLOGY EMPHASIS SELECTIVES

AG	279 Cooperative Education (F/S)	6
AGMT	110 Intro. to Ag. Mach./Equip (S)	2
AGMT	130 Intro. to Ag. Tractors (F)	3
ATDI	134 Auto/Dies Elt/Electronic Sys. I (F/S)	4
DIES	204 Intro. to Hydraulics & Pneum. (F)	2
DIES	214 Intro. to Hydra/Pneum. Lab (F)	2
DRFT	156 Introduction to CAD (F/S)	3
DRFT	244 Topo. Mapping & GIS Apps. (S)	3
METL	140 Intro. To Welding/Cutting (F/S)	3
TECH	100 Ind. Safety/Waste Mgmt. (S)	2

METL

IT

140 Intro. To Welding/Cutting (F/S)	3
111 Ind. Safety/Waste Mgmt. (S)	2

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Civil Eng Tech Minor Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

GIS OPTION

Required Courses

IET	100	Intro to Industrial/Engineering Tech	3	IT	100	Intro to Industrial/Engineering Tech	3
CET	305	Engineering Economics	3				
DRFT	244	Topographic Mapping & GIS Applic.	3				
CET	385	Highway Design & Cnst.	4				
CET	181	Surveying	3				
CIS	171	Database Level I	3				
CIS	410	Decision Support Systems	3				

STRUCTURES OPTION

Required courses

IET	100	Intro to Industrial/Engineering Tech	3	IT	100	Intro to Industrial/Engineering Tech	3
CET	307	Structural Analysis	3				
CET	305	Engineering Economics	3				
CET	221	Engineering Mechanics	3				
CET	232	Strength of Materials	3				
CET	361	Design/Details of Steel Bldgs.	4				
CET	411	Rein. Concrete Design & Details	4				

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Civil Eng Tech Minor Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

GIS OPTION

Required Courses

IET	100 Intro to Industrial/Engineering Tech	3	IT	100 Intro to Industrial/Engineering Tech	3
CET	305 Engineering Economics	3			
DRFT	244 Topographic Mapping & GIS Applic.	3			
CET	385 Highway Design & Cnst.	4			
CET	181 Surveying	3			
CIS	171 Database Level I	3			
CIS	410 Decision Support Systems	3			

STRUCTURES OPTION

Required courses

IET	100 Intro to Industrial/Engineering Tech	3	IT	100 Intro to Industrial/Engineering Tech	3
CET	307 Structural Analysis	3			
CET	305 Engineering Economics	3			
CET	221 Engineering Mechanics	3			
CET	232 Strength of Materials	3			
CET	361 Design/Details of Steel Bldgs.	4			
CET	411 Rein. Concrete Design & Details	4			

PROGRAM/DEGREE REVISION FORM

NEW ____ DROPPED ____ MAJOR REVISION X FOR INFORMATION ONLY

College College of Technical Sciences Program Area Civil Engineering Tech AAS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rational for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

CIS	110 Intro to Computers	3			
IET	100 Intro to Indtl/Engineering Tech.	3	IT	<input checked="" type="checkbox"/>	100 Intro to Indtl/Engineering Tech. 3
DRFT	131 Technical Graphics I	4			
MATH	112 College Algebra	3			
CET	173 Arch. Cnst. & Materials	3			

Courses to be taken Spring Semester

MATH	125 Trigonometry (Area C)	2			
EET	110 Electronics Survey I	3			
DRFT	156 Intro to CAD	3			
	Gen Ed Dist. (Area A-B)	3			
CIS	171 Database Level I (Area C)	3			
TECH	100 Industrial Safety/Waste Mgmt.	2	IT		111 Industrial Safety/Waste Mgmt. 2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CET	220 Cnst. Mgmt/Bid Estimation	3			
CET	221 Engineering Mechanics	3			
PHYS	231 Fund. of Physics I (Area C)	3			
PHYS	234 Fund. of Physics I LAB (Area C)	1			
METL	215 Metallurgy/Mfgt. Materials	3	METL	<input checked="" type="checkbox"/>	315 Metallurgy/Mfgt. Materials 3
ENGL	111 Written Communication I	3			

Courses to be taken Spring Semester

SPCH	141 Fundamentals of Speech	3			
CET	181 Surveying	3			
CET	232 Strength of Materials	3			
MATH	133 Intro to Calculus (Area C)	3			
CHEM	111 General Chemistry (Area C)	3			
DRFT	244 Topo Mapping & GIS Applic.	3			

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences

Program Area Computer Eng Tech BS

Date 3 13 03

Submitter _____

Chair/Dean _____

Date _____

signature IS on original

signature IS on original

Please provide a brief explanation & rationale for the proposed revision(s)

Replace CPET 301 Discrete Mathematics with CIS Elective

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

IET	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CPET	301 Discrete Mathematics	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Business Telecomm. & Networking	3
EET	305 Digital Systems	3
MATH	220 Calc. & Analytic Geo. I	5

Courses to be taken Spring Semester

CIS	255 Programming Level II	3
	Elective (300-400)	3
	Elective (300-400)	3
	Math/Sci. Elective	4
	Gen Ed Dist. (Area A)	3

FRESHMAN YEAR

Courses to be taken Fall Semester

IT	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CIS	Elective (300-400)	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Business Telecomm. & Networking	3
EET	305 Digital Systems	3
MATH	220 Calc. & Analytic Geo. I	5

Courses to be taken Spring Semester

CIS	255 Programming Level II	3
	Elective (300-400)	3
	Elective (300-400)	3
	Math/Sci. Elective	4
	Gen Ed Dist. (Area A)	3

SENIOR YEAR**Courses to be taken Fall Semester**

	Elective (300-400)	3
CIS	300 Operating Systems Intro.	3
	Elective (300-400)	3
EET	450 Adv. Digital Systems	3
CIS	Elective (300-400)	3

Courses to be taken Spring Semester

EET	401 Interfacing	3
EET	430 Adv. Communication Systems	3
	Elective	3
	Gen Ed Dist. (Area A-Humanities)	3
	Gen Ed Dist. (Area B-Soc Sci)	3

124

SENIOR YEAR**Courses to be taken Fall Semester**

	Elective (300-400)	3
CIS	300 Operating Systems Intro.	3
	Elective (300-400)	3
EET	450 Adv. Digital Systems	3
CIS	Elective (300-400)	3

Courses to be taken Spring Semester

EET	401 Interfacing	3
EET	430 Adv. Communication Systems	3
	Elective	3
	Gen Ed Dist. (Area A-Humanities)	3
	Gen Ed Dist. (Area B-Soc Sci)	3

124

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Electronics Eng Tech AAS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

IET	100 Intro to Ind/Engineering Tech	3	IT	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5			
ENGL	111 Written Communication I	3			
MATH	112 College Algebra	3			
SPCH	141 Fund. of speech	3			
	OR				
SPCH	142 Interpersonal Communication	3			

Courses to be taken Spring Semester

CIS	110 Intro To Computers	3
DRFT	156 Intro. to CAD	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	115 Intro. To Programming	3
EET	205 Communications Fund.	4
EET	207 Digital Fundamentals	5
PHYS	234 Fund. of Physics I lab (Area C)	1
PHYS	231 Fund. of Physics I (Area C)	3

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
EET	206 Electronics Equip. Design & Feb.	4
MATH	133 Intro. to Calculus	3
PHYS	232 Fund of Physics II	3
PHYS	235 Fund of Physics II lab	1
	Gen Ed Dist (Area B - ABET req.)	3

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Electronics Eng Tech AAS Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

IET	100 Intro to Ind/Engineering Tech	3	IT	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5			
ENGL	111 Written Communication I	3			
MATH	112 College Algebra	3			
SPCH	141 Fund. of speech	3			
	OR				
SPCH	142 Interpersonal Communication	3			

Courses to be taken Spring Semester

CIS	110 Intro To Computers	3
DRFT	156 Intro. to CAD	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	115 Intro. To Programming	3
EET	205 Communications Fund.	4
EET	207 Digital Fundamentals	5
PHYS	234 Fund. of Physics I lab (Area C)	1
PHYS	231 Fund. of Physics I (Area C)	3

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
EET	206 Electronics Equip. Design & Feb.	4
MATH	133 Intro. to Calculus	3
PHYS	232 Fund of Physics II	3
PHYS	235 Fund of Physics II lab	1
	Gen Ed Dist (Area B - ABET req.)	3

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences Program Area Computer Eng Tech AAS Date 3 12 03

Submitter _____ signature _____ Chair/Dean _____ signature _____ Date _____

Please provide a brief explanation & rational for the proposed revision(s)

Replace CPET 301 Discrete Mathematics with CIS Elective

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

IET	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CPET	301 Discrete Mathematics	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

67

FRESHMAN YEAR

Courses to be taken Fall Semester

IT	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CIS	Elective (CIS)	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

67

PROGRAM/DEGREE REVISION FORM

NEW ___ **DROPPED** ___ **MAJOR REVISION** X **FOR INFORMATION ONLY**
 College College of Technical Sciences Program Area Computer Eng Tech BS Date 3 13 03

Submitter _____ **Chair/Dean** _____ **Date** _____
signature IS on original signature IS on original

Please provide a brief explanation & rationale for the proposed revision(s)

Replace CPET 301 Discrete Mathematics with CIS Elective

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken Fall Semester

IET	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CPET	301 Discrete Mathematics	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Business Telecomm. & Networking	3
EET	305 Digital Systems	3
MATH	220 Calc. & Analytic Geo. I	5

Courses to be taken Spring Semester

CIS	255 Programming Level II	3
	Elective (300-400)	3
	Elective (300-400)	3
	Math/Sci. Elective	4
	Gen Ed Dist. (Area A)	3

FRESHMAN YEAR

Courses to be taken Fall Semester

IT	100 Intro to Ind/Engineering Tech	3
EET	101 Intro to Electricity/Electronics	5
ENGL	111 Written Communication I	3
MATH	112 College Algebra	3
CIS	111 Integrated Bus. Applications	3

Courses to be taken Spring Semester

	Soc Sci Elective (Area B)	3
CIS	115 Intro. To Programming	3
EET	103 Electronics Fundamentals I	5
ENGL	112 Written Communication II	3
MATH	125 Trigonometry (Area C)	2

SOPHOMORE YEAR

Courses to be taken Fall Semester

CIS	155 Programming Level I	3
EET	207 Digital Fundamentals	5
SPCH	141 Fund. of speech	3
	OR	
SPCH	142 Interpersonal Communication	3
CPET	260 Networking I	3
PHYS	231 Fund. of Physics I (Area C)	3
PHYS	234 Fund. of Physics I lab (Area C)	1

Courses to be taken Spring Semester

EET	204 Electronic Fund. II	4
CPET	201 Computer Hardware I	3
CIS	Elective (300-400)	3
MATH	133 Intro. to Calculus	3
	Gen Ed Dist (Area B - ABET req.)	3

JUNIOR YEAR

Courses to be taken Fall Semester

CIS	360 Business Telecomm. & Networking	3
EET	305 Digital Systems	3
MATH	220 Calc. & Analytic Geo. I	5

Courses to be taken Spring Semester

CIS	255 Programming Level II	3
	Elective (300-400)	3
	Elective (300-400)	3
	Math/Sci. Elective	4
	Gen Ed Dist. (Area A)	3

SENIOR YEAR

Courses to be taken Fall Semester

	Elective (300-400)	3
CIS	300 Operating Systems Intro.	3
	Elective (300-400)	3
EET	450 Adv. Digital Systems	3
CIS	Elective (300-400)	3

Courses to be taken Spring Semester

EET	401 Interfacing	3
EET	430 Adv. Communication Systems	3
	Elective	3
	Gen Ed Dist. (Area A-Humanities)	3
	Gen Ed Dist. (Area B-Soc Sci)	3

124

SENIOR YEAR

Courses to be taken Fall Semester

	Elective (300-400)	3
CIS	300 Operating Systems Intro.	3
	Elective (300-400)	3
EET	450 Adv. Digital Systems	3
CIS	Elective (300-400)	3

Courses to be taken Spring Semester

EET	401 Interfacing	3
EET	430 Adv. Communication Systems	3
	Elective	3
	Gen Ed Dist. (Area A-Humanities)	3
	Gen Ed Dist. (Area B-Soc Sci)	3

124

PROGRAM/DEGREE REVISION FORM

NEW ___ DROPPED ___ MAJOR REVISION X FOR INFORMATION ONLY

College College of Technical Sciences

Program Area Ag Technology AAS

Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken ANY Semester

CIS	110 Intro To Computers	3
ENGL	111 Written Communication I	3
SPCH	141 Fundamentals of Speech	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3

Courses to be taken Fall Semester

AG	100 Leadership Development	2
AG	101 Animal Science	3
AG	102 Plant Science	3
AG	105 Ag. Marketing & Economics	3
AG	150 Agricultural Computing	3

Courses to be taken Spring Semester

AG	125 Farm Management	3
	Selectives	6
BIOL	151 Essential of Biology (Area C)	4
	OR	
CHEM	111 General Chemistry (Area C)	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

AG	218 Crop Production	4
AG	254 Forage & Range Mgmt.	4
	Selectives	6

Courses to be taken Spring Semester

AG	204 Soils	4
AG	230 Agricultural Pest Mgmt.	4
AG	244 Livestock Feeding	4

AGRIBUSINESS EMPHASIS SELECTIVES

ACCT	261 Principles of Accounting I (F)	3
ACCT	262 Principles of Accounting II (S)	3

PROGRAM/DEGREE REVISION FORM

NEW DROPPED MAJOR REVISION FOR INFORMATION ONLY

College College of Technical Sciences

Program Area Ag Technology AAS

Date xxxxxxx

Submitter _____ Chair/Dean _____ Date _____
signature signature

Please provide a brief explanation & rationale for the proposed revision(s)

Please provide in the space below a "before & after" picture of the program with the changes in the program noted. Attach appropriate Course Revision Forms. Please indicate changes by shading the appropriate cells.

FRESHMAN YEAR

Courses to be taken ANY Semester

CIS	110 Intro To Computers	3
ENGL	111 Written Communication I	3
SPCH	141 Fundamentals of Speech	3
MATH	110 Math for Liberal Arts	4
	OR	
MATH	112 College Algebra	3

Courses to be taken Fall Semester

AG	100 Leadership Development	2
AG	101 Animal Science	3
AG	102 Plant Science	3
AG	105 Ag. Marketing & Economics	3
AG	150 Agricultural Computing	3

Courses to be taken Spring Semester

AG	125 Farm Management	3
	Selectives	6
BIOL	151 Essential of Biology (Area C)	4
	OR	
CHEM	111 General Chemistry (Area C)	3

SOPHOMORE YEAR

Courses to be taken Fall Semester

AG	218 Crop Production	4
AG	254 Forage & Range Mgmt.	4
	Selectives	6

Courses to be taken Spring Semester

AG	204 Soils	4
AG	230 Agricultural Pest Mgmt.	4
AG	244 Livestock Feeding	4

AGRIBUSINESS EMPHASIS SELECTIVES

ACCT	261 Principles of Accounting I (F)	3
ACCT	262 Principles of Accounting II (S)	3

AG	245 Livestock Production (F)	4
AG	279 Cooperative Education (F/S)	6
BUS	100 Intro. To Business (F)	3
BUS	245 Personal Finance (F)	3
BUS	250 Business Statistics (F)	3
BUS	271 Legal Environ. of Business (S)	3
ECON	241 Microeconomic Principles (F)	3

AGRI TECHNOLOGY EMPHASIS SELECTIVES

AG	279 Cooperative Education (F/S)	6
AGMT	110 Intro. to Ag. Mach./Equip (S)	2
AGMT	130 Intro. to Ag. Tractors (F)	3
ATDI	134 Auto/Dies Elt/Electronic Sys. I (F/S)	4
DIES	204 Intro. to Hydraulics & Pneum. (F)	2
DIES	214 Intro. to Hydra/Pneum. Lab (F)	2
DRFT	156 Introduction to CAD (F/S)	3
DRFT	244 Topo. Mapping & GIS Apps. (S)	3
METL	140 Intro. To Welding/Cutting (F/S)	3
TECH	100 Ind. Safety/Waste Mgmt. (S)	2

METL

IT	140 Intro. To Welding/Cutting (F/S)	3
IT	111 Ind. Safety/Waste Mgmt. (S)	2

