# 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. Arts & Sciences, Education and Nursing; Technical Sciences) approval and must be signed by the submitter and the college 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): 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.
- 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 Dean of the submitting college who then notifies the originator.)

10-08 Proposal #	Title: Design Droffing AAS Legrel
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(proposal explanation, submitter and college dean signatures on attached program/degree or course revision(form)

28-11

29-11

Date

Received by ACAD Senate

Forwarded to Gen Ed Committee

Returned to ACAD Senate

Forwarded to Curriculum Committee

Returned to ACAD Senate

Forwarded to Graduate Council

Returned to ACAD Senate for Vote

Forwarded to Provost for Approval/Disapproval

Forwarded to Chancellor for Approval/Disapproval

Copies sent to originating college and

Updated 09/10/09

Disapproved pproved Signature

Approved

Signature

Disapproved

Approvee Disapproved Signature Approved isapproved solu Signature Disapproved Approved Date Signature

18-11

Approved

Signature

Disapproved

Date

Date

## Montana Board of Regents LEVEL I REQUEST FORM

Item Number:	XXX-XXXX+XXXXX	Meeting Date:	enants Biersteller Lovel 3
Institution:	MSU-Northern	CIP Code:	Web Level & documents for
Program Title:	Design Drafting AAS degree	energia international de la constante	all bitweet to react an annual

Level I proposals are those that may be approved by the Commissioner of Higher Education or the Commissioner's designee. The approval of such proposals will be conveyed to the Board of Regents at the next regular meeting of the Board. The institution must file the request with the Office of the Commissioner of Higher Education by means of a memo to the Deputy Commissioner for Academic and Student Affairs, by no later than five weeks prior to the final posting date for the next scheduled meeting of the Board. The Deputy Commissioner will review the proposal and respond to the proposing campus with any questions or concerns within one week, allowing the proposing campus one week to respond before the Item is posted for the BOR scheduled meeting.

#### X A. Level I (place an X for all that apply):

Level I proposals include campus initiatives typically characterized by (a) minimal costs; (b) clear adherence to approved campus mission; and (c) the absence of significant programmatic impact on other institutions within the Montana University System and Community Colleges. For Level I actions on degree programs or certificates, the process must begin when the proposing campus posts its intent on the MUS academic planning web site.

- 1. Re-titling existing majors, minors, options and certificates
- 2. Adding new minors or certificates where there is a major (Submit with completed Curriculum Proposals Form)
- 3. Adding new minors or certificates where there is an option in a major (Submit with completed Curriculum Proposals Form)
- 4. Departmental mergers and name changes
- X 5. Program revisions (Submit with completed Curriculum Proposals Form)
  - 6. Distance or online delivery of previously authorized degree or certificate programs
  - 7. Placement of program into moratorium (<u>No Program Termination Checklist at this time –</u> <u>document steps taken to notify students, faculty, and other constituents and include this</u> <u>information on checklist at time of termination if not reinstated</u>)
  - 8. Filing Notice of Intent to Terminate/Withdraw existing majors, minors, options, and certificates (No Program Termination Checklist at this time)
  - 9. Terminate/withdraw existing majors, minors, options, and certificates (Submit with completed Program Termination Checklist)

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# Montana Board of Regents LEVEL I REQUEST FORM

#### B. Level I with Level II documentation:

With Level II documentation circulated to all campus chief academic officers in advance, the Deputy Commissioner or designee may propose additional items for inclusion in the Level I process. For these items to move forward, the Deputy Commissioner or designee must reach consensus with the chief academic officers. When consensus is not achieved, the Deputy Commissioner or designee will move the item to the Level II review process.

1. Options within an existing major or degree (Submit with completed Curriculum Proposals Form);

- 2. Eliminating organizational units within larger institutions such as departments, divisions and colleges or schools with the exception of the Colleges of Technology where changes require Board action (Submit with completed Curriculum Proposals Form)
- 3. Consolidating existing programs and/or degrees (<u>Submit with completed Curriculum Proposals</u> Form)
- C. Temporary Certificate or A.A.S. degree programs

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Certificate or Associate of Applied Science Degree Programs may be submitted as Level I proposals, with memo and backup documentation, when they are offered in cooperation with and /or at the request of private or public sector partners and the decision point to offer the program is not consistent with the regular Board of Regents program approval process. Level I approval for programs under this provision will be limited to two years. Continuation of a program beyond the two years will require the normal program approval process as Level II Proposals.

All other Level I Certificate or Associate Degree programs may be placed on submission at any Board of Regents meeting. They will be placed on action agendas at subsequent meetings. All campuses agree to insure that all other campuses receive program information well in advance of submission.

#### D. Campus Certificates

Although certificate programs of 29 credits or fewer may be implemented by the individual campuses without approval by the board of regents, those certificates do need to be reported to the office of the commissioner of higher education and listed on the Montana University System's official degree and program inventory. These Level I proposals will be listed as information items at the next regular meeting of the board.

#### **Specify Request:**

Program faculty has determined that courses needed to be updated. Course changes resulted in a change in total credits for the degree changing from 61 to 60.

ITEM #XXX-XXXX+XXXXX | Page 2 of 2

# **PROGRAM/DEGREE REVISION FORM**

NEW	_ DROPPED	MAJOR REVIS	ION XX FOR INFORMATIO	N ONLY
College Tech	nical Sciences	Program Area	Design Drafting A.A.S.	Date <u>04/01/201</u> 1
Submitter	puste Ml	ligan Dean	Sugary O Kegel	_Date 4. 7. 2011
	gnature	0	Signature (indicates "college" level approval)	
Please provid	e a brief evolanat	ion & rationale for	the proposed revision(s).	

Please provide in the space below a "before and 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.

PROPOSAL TITLE Design Drafting A.A.S.

# **Current Program listed** in 10-11 Catalog

Course			
Prefix	#	Course Title	Credits
WRIT	108	Elementary Technical Writing OR	3
WRIT	108	College Writing	5
M	121	College Algebra 3	
SPCH	141	Fundamentals of Speech OR	3
SPCH	142	Interpersonal Communication	
CAPP	151		
CAPP	158	MS Access	3
CET	173	Architectural Construction & Materials	3
DRFT	131	Technical Graphics I	3
DRFT	132	Descriptive Geometry	3
DRFT	156	Introduction to CAD	3
DRFT	201	Residential Drafting	3
DRFT	205	Machine Drafting	3
DRFT	244	Topographic Mapping & GIS Apps	3
DRFT	256	3D CAD	3
М	112	Trigonometry & Complex Numbers	2
METL	155	Machining Processes	3
MFGT	200	Manufacturing Processes	3
PHSX	105	Fundamentals of Physical Science	1
PHSX	106	Fundamentals of Physical Science Lab	0
		ollowing tracks:	
Design I	rafting	Track	
CET	181	Surveying	3
CET	221	Engineering Mechanics I	3
PHSX	205	College Physics I	3
PHSX	206	College Physics I Lab	1
		Elective	3
Drafting	Techno	logy Track	
		Electives	7
	Choos	se 6 credits from the following selectives	
BUS	110	Creative Problem Solving	3
BUS	120	Leadership	3
CAPP	266	Advanced MS Excel Applications	3
CET	220	Construction, Management, & Bid Est.	3
CSCI	110	Programming with Visual Basic I	3
TSS	222	Customer Service	3
TSS	246	Technical Sales & Service	3
		Total	61

# **Proposed Program** for 11-12 Catalog

Course			Gen-Ed	Degree
Prefix	#	Course Title	Credits	Credits
WRIT	101	College Writing I	3	
M	121	College Algebra	3	
SPCH	141	Fundamentals of Speech	3	
CET	181	Surveying		3
CET	221	Engineering Mechanics		3
CET	232	Strength of Materials		3
DRFT	131	Technical Graphics I		3
CET	173	Architectural Construction & Mat'ls		3
DRFT	156	Introduction to CAD		3
DRFT	201	Architectural CAD I		3
DRFT	205	Machine Drafting		3
DRFT	244	Topographic Mapping & GIS Apps		3
DRFT	256	3D CAD		3
М	112	Trigonometry		2
METL	155	Machining Processes		3
MFGT	200	Manufacturing Processes & Mat'ls		3
PHSX	205	College Physics 1		3
PHSX	206	College Physics I Lab		1
DRFT	2xx	Industrial CAD Modeling		3
MFGT	2xx	CAD/CAM I		3
BUS	110	Creative Problem Solving		3
		the second se		
		Total		60

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

NEW\_\_\_\_\_ DROPPED\_\_\_\_\_ MAJOR REVISION \_\_\_\_\_ FOR INFORMATION ONLY XX\_\_\_ Date 04/01/11 College Technical Sciences Program Area Design Drafting A.A.S. Date 4.7.7011 @Dean\_ Submitter Signature (indicates "college" level approval) Signature

Please provide a brief explanation & rationale for the proposed revision(s): This has been a 200-level class for many years, but because of industry trends the students need to be introduced to 3D modeling earlier than in the past. This course has become the foundation course for most of the classes students take at the 200-, 300-, & 400-levels.

Please provide the following information: College: COTS Program Area: Design Drafting Date: 01/28/2011 Course Prefix & No.: DRFT1xx

**Course Title:** 3D CAD **Credits:** 3

Required by: Design Drafting A.A.S.

Design Drafting minor Selective in:

Elective in: General Education:

Lecture: XX Lecture/Lab: Gradable Lab: Contact hours lecture: 1 Contact hours lab: 4

#### **Current Catalog Description (include all prerequisites):**

This is a study in advanced CAD concepts and procedures to develop three-dimensional wireframe models. Emphasis will be on the creation and use of 3D primitives, surface modeling, basic solids modeling, shading techniques, and the use of animation software. Exercises will include rendered output to paint type printers. Prerequisite: DRFT 156.

#### Proposed or New Catalog Description (include all prerequisites):

This is a study in advanced concepts & procedures used to develop three-dimensional CAD models & produce working drawings from them. Prerequisite: DRFT156

#### **Course Outcome Objectives:**

This course is designed to:

- 1) Demonstrate the importance of 3D modeling & drafting in industry
- 2) Develop & refine students' visualization skills
- 3) Further students' understanding of technical symbols & standards.
- 4) Refine student dimensioning skills
- 5) Develop working drawings from 3D models

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

NEW\_\_\_\_\_ DROPPED\_\_\_\_\_ MAJOR REVISION\_\_\_\_\_ FOR INFORMATION ONLY XX\_\_\_

Date 04/01/11 College Technical Sciences Program Area Design Drafting A A S Date 4. 7. 2011 Submitter Jean Signature (indicates "college"

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

The current Architectural CAD I class will no longer be offered

Please provide the following information: College: COTS Program Area: Design Drafting Date: 10/13/2010 Course Prefix & No.: DRFT201

**Course Title:** Architectural CAD I **Credits:** 3

#### **Required by:**

Industrial Technology B.S. Design Drafting A.A.S. Design Drafting minor

Selective in: Elective in: General Education:

Lecture: 3 credits Lecture/Lab: Gradable Lab: Contact hours lecture: 1 Contact hours lab: 4

#### **Current Catalog Description (include all prerequisites):**

This course is the study of the principals involved in the construction drawings of an average wood frame residential structure. A complete set of working drawings will be developed. Prerequisite: DRFT 132.

## Proposed or New Catalog Description (include all prerequisites):

This course is designed to introduce students to concepts & techniques involved in using Building Information Model (BIM) software. A complete set of working drawings for an average wood frame residence will be developed. Drawing set management & publishing will be emphasized. Prerequisite DRFT1xx, 3D CAD

#### **Course Outcome Objectives:**

Upon completion of this course, the student will demonstrate the ability to:

- 1) Identify components of a floor plan
- 2) Draw & plot a floor plan to scale
- 3) Create schedules
- 4) Identify components of a foundation plan
- 5) Draw & plot a foundation plan to scale
- 6) Identify components of a plot plan
- 7) Draw & plot a plot plan to scale

- 8) Identify the components of an elevation drawing
- 9) Draw & plot elevations to scale
- 10) Identify the components of a section
- 11) Draw & plot a section to scale
- 12) Correct redlined drawings
- 13) Develop a set of standards to be used to manage a set of drawings

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

NEW DROPPED MAJOR REVISION FOR INFORMATION ON	LY XX
College Technical Sciences Program Area Design Drafting A.A.S.	_ Date <u>04/01/11</u>
Submitter Signature (indicates "college" level approval)	4.7.2011

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

The decision to change DRFT 316 to a 200 level class is so we can offer the class at the sophomore level. This is a very important class for the students that are receiving an AAS degree. Inventor is a very powerful program that many of our industry partners are using. We feel that it is important for the AAS students to be exposed to such a program to make them a better drafter and more employable.

Please provide the following information: College: COTS Program Area: Design Drafting Date: 10/13/2010 Course Prefix & No.: DRFT2xx

**Course Title:** Industrial CAD Modeling **Credits:** 3

#### **Required by:**

Industrial Technology B.S., Architectural CADD emphasis Design Drafting A.A.S. Design Drafting minor

Selective in: Elective in: General Education:

Lecture: XX Lecture/Lab: Gradable Lab: Contact hours lecture: 1 Contact hours lab: 4

# Current Catalog Description (include all prerequisites):

The student will explore advanced computer modeling techniques used in industrial design. Students will experiment with various applications in solving assigned problems. Prerequisites: DRFT 256, DRFT 356, or consent of instructor.

# Proposed or New Catalog Description (include all prerequisites):

The student will explore advanced computer modeling techniques used in industrial design. Students will experiment with various applications in solving assigned problems. Prerequisites: DRFT 156

## **Course Outcome Objectives:**

1. Further enhance the understanding of CAD applications in regards to modeling and design.

2. Develop and refine skills in:

a. modeling

b. mechanical design

e. parametric design and modeling

3. Introduce the student to alternative design and modeling tools.

4. Develop an understanding of the contents of parametric design and modeling

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

NEW\_\_\_\_\_ DROPPED\_\_\_\_\_ MAJOR REVISION\_\_\_\_\_ FOR INFORMATION ONLY XX\_\_\_

Date 04/01/11 College Technical Sciences Program Area Design Drafting A.A.S. Date 4. 7. 2011 Submitter Daan Signature (indicates "college" level Signature

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

Prerequisite courses need to be updated

Please provide the following information: College: COTS Program Area: Design Drafting Date: 02/23/2011 Course Prefix & No.: DRFT205

**Course Title:** Machine Drafting **Credits:** 3

## **Required by:**

Industrial Technology B.S. Design Drafting A.A.S. Design Drafting minor

Selective in: Elective in: General Education:

Lecture: 3 credits Lecture/Lab: Gradable Lab: Contact hours lecture: 1 Contact hours lab: 4

## **Current Catalog Description (include all prerequisites):**

The study and application of standards used for producing working drawings, including the fundamentals of geometric dimensioning and tolerancing. Both detail and assembly drawings will be mechanically produced. Prerequisite: DRFT 131

## Proposed or New Catalog Description (include all prerequisites):

The study and application of standards used for producing working drawings, including the fundamentals of geometric dimensioning and tolerancing. Both detail and assembly drawings will be produced. Prerequisites DRFT1xx, 3D CAD, or DRFT2xx, Industrial CAD Modeling

## **Course Outcome Objectives:**

Upon completion of this course, the student will demonstrate the ability to:

- 1) Further enhance the understanding of CAD applications in regard to modeling and design.
- 2) Develop and refine skills in drafting the following:
  - A. modeling
  - B. mechanical design
  - E. Dimensioning
  - F. GD&T
  - G. Fasteners

- H. Mechanisms
- I. Sections, Revolutions, and Breaks
- J. Working Drawings
- K. Assemblies
- L. Pictorials
- 3) Introduce the student to design and modeling tools.

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

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

The decision to change the course number for MFGT 341 to a 200 level class is so we can offer the class at the sophomore level. The class will be taken by students in the AAS in Design Drafting and the AAS in CAD/CAM Technology, which will then lead students into the Industrial Technology B.S.

Please provide the following information: College: COTS Program Area: Manufacturing Date: 02/24/2011 Course Prefix & No.: MFGT2xx

**Course Title:** CAD/CAM I **Credits:** 3

Required by: Industrial Technology B.S. Design Drafting A.A.S.

Selective in: Elective in: General Education:

Lecture: XX Lecture/Lab: Gradable Lab: Contact hours lecture: 1 Contact hours lab: 4

## **Current Catalog Description (include all prerequisites):**

A course in the principles and applications of CAD/CAM and CNC technology. Students will solve problems associated with coordinate geometry, database exchange, G and M codes.

### Proposed or New Catalog Description (include all prerequisites):

This is a course in the principles and applications of CAD/CAM, Geometric Dimensioning and Tolerancing, and CNC technology. Students will solve problems associated with coordinate geometry, database exchange, G and M codes.

#### **Course Outcome Objectives:**

1) understand the elements and the importance of the design process;

2) realize the different material, equipment, and processes involved in the production of manufactured parts and assemblies;

3) understand the applications of working drawings and their importance to the industrial society;

4) prepare working, assembly, and detail drawings;

5) Apply GD&T concepts

6) further develop CAD skills by using advanced applications and software to solve design problems;

7) understand, interpret, and apply drafting standards to design problems;

8) realize the significance of working with members of a design team; document, communicate, and log project research and submit a compiled copy.

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