

# 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): 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 Dean of the submitting college who then notifies the originator.)**

|                         |   |
|-------------------------|---|
| <b>Proposal # 05-29</b> | <b>Title: Ag Operations Technology BS program Changes</b> |
|-------------------------|---|

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

|  |                                  |  |  |
|--|----------------------------------|--|--|
| Received by ACAD Senate<br>Forwarded to Teacher Ed Council                         | Date<br><u>12/20/05</u>          | Approved _____<br>Disapproved _____  |  |
| Forwarded to Gen Ed Committee  | _____                            | Signature _____ Date _____<br>Approved _____ Disapproved _____<br>Signature _____ Date _____                               |  |
| Returned to ACAD Senate<br>Forwarded to Curriculum Committee                       | <u>12/20/05</u>                  | Approved <input checked="" type="checkbox"/> _____ Disapproved _____<br>Signature <u>Almalee Stitt</u> Date <u>1/20/06</u> |  |
| Returned to ACAD Senate for Vote   | <u>1/24/06</u>                   | Approved <input checked="" type="checkbox"/> _____ Disapproved _____<br>Signature _____ Date <u>1/24/06</u>                |  |
| Sent to Provost's office for Full Faculty vote<br>Voted on at Full Faculty meeting | <u>1/25/06</u><br><u>1/31/06</u> | Approved <input checked="" type="checkbox"/> _____ Disapproved _____<br>Signature _____ Date <u>1/31/06</u>                |  |
| Forwarded to Provost for Approval/Disapproval                                      | <u>2/1/06</u>                    | Approved <input checked="" type="checkbox"/> _____ Disapproved _____<br>Signature _____ Date <u>2/1/06</u>                 |  |
| Forwarded to Chancellor for Approval/Disapproval                                   | <u>2/1/06</u>                    | Approved <input checked="" type="checkbox"/> _____ Disapproved _____<br>Signature _____ Date _____                         |  |
| Copies sent to originating college and registrar's office                          | <u>2/6/06</u>                    |  |  |

**PROGRAM/DEGREE REVISION FORM**

NEW  DROPPED  MAJOR REVISION  FOR INFORMATION ONLY

College College of Technical Sciences Program Area Ag Operations Technology Date 9/20/2005  
 Submitter James M. Welch signature Dean Gregory D. Keph signature (indicates "college" level approval) Date 12-20-05

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

Remove lower & upper division "options" (Agri-technology & AgriBusiness) --- require a minor  
 Change AOT 301 from 2 to 3 credits Change course description of AG 150  
 Change name of AGMT 410

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

**Proposal Title: AG OPERATIONS TECHNOLOGY BS program changes**

**Current Program**

**Proposed Changes for 06-07 Catalog**

| Current Program |     |                                    |   | Proposed Changes for 06-07 Catalog |     |                                |   |
|-----------------|-----|------------------------------------|---|------------------------------------|-----|--------------------------------|---|
|                 |     |                                    |   | FRESHMAN YEAR                      |     |                                |   |
| Fall Semester   |     |                                    |   | Fall Semester                      |     |                                |   |
| IT              | 100 | Intro to Technology CAT IX         | 3 | IT                                 | 100 | Intro to Technology CAT IX     | 3 |
| AG              | 101 | Animal Science                     | 3 | AG                                 | 101 | Animal Science                 | 3 |
| AG              | 102 | Plant Science                      | 3 | AG                                 | 102 | Plant Science                  | 3 |
| AG              | 105 | Ag Marketing & Economics           | 3 | AG                                 | 105 | Ag Marketing & Economics       | 3 |
|                 |     | CAT I COMM (3 OF 6)                | 3 |                                    |     | CAT I COMM (3 OF 6)            | 3 |
|                 |     | CAT III NAT SCI (3 OF 6)           | 3 |                                    |     |                                |   |
| Spring Semester |     |                                    |   | Spring Semester                    |     |                                |   |
| AG              | 150 | Ag Computing                       | 3 | AG                                 | 150 | Intro to Agriculture Computing | 3 |
|                 |     | CAT III NAT SCI (3 OF 6)           | 3 |                                    |     |                                |   |
|                 |     | CAT II MATH (3)                    | 3 |                                    |     | CAT II MATH (3)                | 3 |
| AG              | 125 | Farm Management                    | 3 | AG                                 | 125 | Farm Management                | 3 |
| SOPHOMORE YEAR  |     |                                    |   | SOPHOMORE YEAR                     |     |                                |   |
| Fall Semester   |     |                                    |   | Fall Semester                      |     |                                |   |
| AG              | 218 | Crop Production                    | 4 | AG                                 | 218 | Crop Production                | 4 |
| AG              | 245 | Livestock Production (3)           | 3 | AG                                 | 245 | Livestock Production           | 3 |
|                 |     | OR                                 |   |                                    |     | Minor Lower division           | 3 |
| AG              | 254 | Forage & Range Mgmt. (4)           | 4 | AG                                 | 254 | Forage & Range Mgmt.           | 4 |
| ENGL            | 112 | CAT I COMM (3 OF 6)                | 3 | ENGL                               | 112 | CAT I COMM (3 OF 6)            | 3 |
|                 |     | Option Selectives (lower division) | 3 |                                    |     |                                |   |
|                 |     | Option Selectives (lower division) | 3 |                                    |     |                                |   |
| Spring Semester |     |                                    |   | Spring Semester                    |     |                                |   |
| AG              | 204 | Soils                              | 4 | AG                                 | 204 | Soils (Cat III)                | 4 |
| AG              | 230 | Agricultural Pest Mgmt.            | 4 | AG                                 | 230 | Agricultural Pest Mgmt.        | 4 |
| AG              | 244 | Livestock Feeding                  | 4 | AG                                 | 244 | Livestock Feeding              | 4 |
|                 |     | Option Selectives (lower division) | 3 |                                    |     | Minor Lower division           | 3 |
| JUNIOR YEAR     |     |                                    |   | JUNIOR YEAR                        |     |                                |   |
| Fall Semester   |     |                                    |   | Fall Semester                      |     |                                |   |
| AOT             | 301 | Global Positioning Systems         | 2 | AOT                                | 301 | Global Positioning Systems     | 3 |
| AOT             | 300 | Econ. Dev. In Rural Areas          | 2 | AOT                                | 300 | Econ. Dev. In Rural Areas      | 2 |
|                 |     | CAT VII - FINE ARTS (3)            | 3 | AG                                 | 305 | Ag Commodity Marketing         | 3 |
|                 |     | CAT VIII - HUM (3)                 | 3 |                                    |     | Minor Upper division           | 3 |
| AOT             | 310 | Soil & Water Mgmt                  | 2 |                                    |     | CAT III - (Nat Sci)            | 3 |
| AG              | 350 | Ag Computer Mgmt.                  | 3 |                                    |     |                                |   |
|                 |     |                                    |   | Spring Semester                    |     |                                |   |
|                 |     |                                    |   | AOT                                | 310 | Soil & Water Mgmt              | 2 |
| AG              | 305 | Ag Commodity Marketing             | 3 | AG                                 | 350 | Ag Computer Mgmt.              | 3 |
|                 |     | CAT IV - SOC SCI (3)               | 3 |                                    |     | CAT IV - SOC SCI (3)           | 3 |
|                 |     | Option Requirements                | 3 | AOT                                | 315 | Geographic Info Systems        | 3 |
|                 |     | Option Selectives (300-400)        | 3 |                                    |     | Minor Upper division           | 3 |
|                 |     | Option Requirements                | 3 |                                    |     | Minor Upper division           | 3 |

| SENIOR YEAR     |     |                                |       |
|-----------------|-----|--------------------------------|-------|
| Fall Semester   |     |                                |       |
| AG              | 440 | Trends & Issues in Agriculture | 3     |
|                 |     | CAT VI - CULT DEV (3)          | 3     |
|                 |     | Option Selectives (300-400)    | 3     |
|                 |     | Option Selectives (300-400)    | 3     |
|                 |     | Option Requirements            | 3     |
| Spring Semester |     |                                |       |
|                 |     | CAT V HISTORY (3)              | 3     |
|                 |     | Electives                      | 2     |
|                 |     | Electives                      | 3     |
|                 |     | Option Selectives (300-400)    | 3     |
|                 |     | Option Selectives (300-400)    | 3     |
|                 |     |                                | 33 87 |
|                 |     |                                | 120   |

| SENIOR YEAR     |     |                                |       |
|-----------------|-----|--------------------------------|-------|
| Fall Semester   |     |                                |       |
| AG              | 440 | Trends & Issues in Agriculture | 3     |
|                 |     | CAT VI - CULT DEV (3)          | 3     |
| AGMT            | 410 | Machinery Financial Mgmt       | 3     |
|                 |     | CAT VI - HIST                  | 3     |
|                 |     | CAT VII - FINE ARTS (3)        | 3     |
| Spring Semester |     |                                |       |
| AOT             | 479 | Coop Education                 | 3     |
|                 |     | Minor Upper division           | 3     |
|                 |     | Minor Upper division           | 3     |
|                 |     | CAT VIII (Hum)                 | 3     |
|                 |     |                                | 34 86 |
|                 |     |                                | 120   |

39 upper division  
Options indicated in blue

**Agri-Technology Option**

**Lower Division Selectives (9 crs. needed)**

|      |     |                                     |   |
|------|-----|-------------------------------------|---|
| ATDI | 134 | Auto/Diesel Elect/Elec Sys          | 4 |
| AGMT | 110 | Intro Ag Machines & Equip           | 2 |
| AGMT | 120 | Forage Implements                   | 3 |
| AGMT | 130 | Introduction to Tractors            | 3 |
| AGMT | 205 | Intro to Grain Harvesting Equip     | 3 |
| AGMT | 210 | Tillage, Planting, & Spraying Imps. | 3 |
| IT   | 130 | Construction Technology             | 3 |
| METL | 140 | Intro to Welding & Cutting          | 3 |
| ATDI | 265 | Heating & Air Conditioning          | 4 |
| IT   | 111 | Industrial Safety/Waste Mgmt        | 2 |

**Agribusiness Option**

|      |     |                            |   |
|------|-----|----------------------------|---|
| ACCT | 261 | Principles of Accounting I | 3 |
| AG   | 279 | Co-op Education            | 3 |
| BUED | 245 | Personal Finance           | 3 |
| BUS  | 100 | Intro to Business          | 3 |
| BUS  | 110 | Creative Problem Solving   | 3 |
| BUS  | 250 | Business Statistics        | 3 |
| BUS  | 271 | Legal Envir. of Business   | 3 |

**Agri-Technology Option**

**OPTION REQUIREMENTS (9 crs. needed)**

|      |     |                        |   |
|------|-----|------------------------|---|
| ISET | 308 | Industrial Electronics | 4 |
| TSCI | 304 | Fuels & Lubricants     | 3 |
| AGMT | 410 | Ag Machinery Mgmt      | 3 |

**Upper Division Selectives (15 credits needed)**

Select a minimum of 15 upper division credits  
from courses with prefixes of  
AG, AOT, ATDI, AGMT, EET, TSCI, METL, DRFT,  
DIES, AUTO, CIS

**Agribusiness Option**

**OPTION REQUIREMENTS (9 crs. needed)**

|   |     |                         |   |
|---|-----|-------------------------|---|
| BUS   | 300 | Mgmt in Organizations   | 3 |
| BUS   | 332 | Human Resource Mgmt.    | 3 |
| BUS   | 335 | Principles of Marketing | 3 |
| Upper Division Selectives (15 credits needed) |     |                         |   |
| BUS   | 380 | Operations Management   | 3 |
| BUS   | 360 | Project Management      | 3 |
| BUS   | 405 | Ethics in Mgmt & Tech   | 3 |
| BUS   | 430 | Senior Project          | 3 |
| SBM   | 402 | Small Business Mgmt.    | 3 |
| BUS   | 436 | Sales & Sales Mgmt      | 3 |
| SBM   | 416 | New Venture Development | 3 |
| AOT   | 479 | Co-op Education         | 3 |

## COURSE REVISION FORM

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

College COTS Program Area Ag Tech Date 12/07/05

Submitter Thomas Mabeles Dean \_\_\_\_\_ Date \_\_\_\_\_  
Signature Signature (indicates "college" level approval)

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

*Name change better reflects course nature*

*Prerequisite is no longer necessary*

*Revise course description*

Please provide the following information:

**College:** *COTS*

**Program Area:** *Agriculture Technology*

**Date:** *12/01/05*

**Course Prefix & No.:** *AG150*

**Course Title:** *Agricultural Computing*

**Change to:** *Introduction to Agricultural Computing*

**Credits:** *3*

**Required by:**

*Agricultural Technology AAS*

*Agricultural Operation's Technology BS*

*Applied Agriculture Minor*

**Selective in:**

**Elective in:**

**General Education:**

**Lecture:** *3*

**Lecture/Lab:**

**Gradable Lab:**

**Contact hours lecture:** *3*

**Contact hours lab**

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

*A class designed to acquaint students with agricultural computer applications. Emphasis is placed on software useful to the farmer, rancher and agri-businesses. Instructional computers will be IBM or compatibles that utilize the MS-DOS operating system. Prerequisite: CIS 110.*

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

*This is a class designed to acquaint students with a number of agricultural computer applications and features agricultural specific software.. Emphasis is placed on software useful to the farmer, rancher and agri-business. Livestock, cropping, financial management, digital mapping of land resources and other agricultural based computerized applications will be featured.*

## **Course Outcome Objectives:**

*Individuals satisfactorily completing the requirements of this class will be able to:*

- 1. Operate a Windows based computer and utilize its peripherals for common agricultural computing applications*
- 2. Utilize basic file, directory and Window's commands and computer terminology related to common agricultural computer use*
- 3. Load and run software programs related to crop and livestock management, financial management, agricultural accounting, spreadsheets, databases, farm mapping (GIS), geo-referencing and other common agricultural computing applications*
- 4. Access and manage agricultural information networks via internet and computer*
- 5. Develop an agriculturally related web page*
- 6. Describe the capabilities of a computer as it relates to farming/ranching and agribusiness*

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

Updated 09/29/05

## COURSE REVISION FORM

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

College COTS Program Area Ag Tech Date 12/07/05

Submitter Thomas M. White Chair/Dean \_\_\_\_\_ Date \_\_\_\_\_  
Signature Signature (indicates "college" level approval)

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

*Revise course description  
Change from 2 credits to 3 credits  
Revise course objectives*

Please provide the following information:

**College:** *COTS*

**Program Area:** *Agricultural Technology*

**Date:** *12/05/05*

**Course Prefix & No.:** *AOT 301*

**Course Title:** *Global Positioning Systems*

**Credits:** *Change from 2 to 3*

**Required by:** *AOT B.S.,*

**Selective in:**

**Elective in:**

**General Education:** Category IX "Technology" (Currently is in the Technology Core List)

**Lecture:** *3*

**Lecture/Lab:** *0*

**Gradable Lab:**

**Contact hours lecture:** *3*

**Contact hours lab:** *0*

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

*This course will allow students to acquire an understanding of global positioning systems (GPS) technology and how it used in agriculture, outdoor activities, orienteering, and in managing land resources. Class participants will use handheld and mapping grade GPS receivers and become familiar with GPS data collection, differential correction, processing of spatial data, map types, coordinate grinds, map datum, and waypoints. Students will learn how to link GPS receivers with computers and machinery, manage GPS data with software, upload and download coordinate information and create printouts of spatial data, locations and routes.*

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

*This course is a study of global positioning systems (GPS) technology and how it can be used in agriculture, outdoor activities, orienteering, land resources, transportation and in a large number of other applications. Class participants will use handheld and mapping grade GPS receivers and become familiar with GPS data collection, DGPS or differential correction, processing of spatial data, map types, coordinate grinds, map datum, amd waypoints. Students will learn how to link GPS receivers with computers and equipment, manage GPS data with software, upload and download coordinate information and create printouts of spatial data, locations and routes.*

**Course Outcome Objectives:**

*Participants satisfactorily completing the requirements of this class will be able to:*

- 1. Describe global positioning principles*
- 2. Explain the fundamentals of DGPS*
- 3. Understand GPS terminology*
- 4. List common GPS applications*
- 5. Interpret and utilize common geographic coordinate systems*
- 6. Interpret coordinate grid maps and use them with GPS*
- 7. Utilize handheld and precision GPS receivers for positioning, navigating, tracking and other uses*
- 8. Configure GPS units for customized use and interface*
- 9. Utilize and interpret digital maps interfaced with GPS*
- 10. Explain how geo-referenced information can be utilized by GIS software and the process involved*

**How Course Outcomes Meet the Technology General Education Category:**

*Those Met are Marked with an X*

Students are expected to demonstrate two or more of the following outcomes upon successfully completing this category:

|   |   |
|---|---|
| 1. Explain the impact of technology on society and conversely, how society impacts technology in a historical, present and future sense | X |
| 2. Critically assess current and future trends in technology  | X |
| 3. Describe the past and future implications of technology on society   | X |
| 4. Explicate the historical importance of technology in societal change and the role of technology in future changes                    | X |
| 5. List technology's role in problem solving and communication  | X |
| 6. Describe the ethical, legal and social concerns stemming from advances in technology   |   |
| 7. Demonstrate an ability to use technology within a discipline   | X |
| 8. Demonstrate an introductory level of technology literacy   | X |

**Category IX - Technology**

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

*None*

## COURSE REVISION FORM

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

College COTS Program Area Ag Tech Date 12/07/05

Submitter Thomas M. Weber Dean \_\_\_\_\_ Date \_\_\_\_\_  
Signature Signature (indicates "college" level approval)

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

*Name change better reflects course nature*

*Revise course description*

Please provide the following information:

**College:** *COTS*

**Program Area:** *Agriculture Technology*

**Date:** *12/01/05*

**Course Prefix & No.:** *AGMT 410*

**Course Title:** *Agricultural Machinery Management*

**Change to:** *Machinery Financial Management*

**Credits:** *3*

**Required by:**

*Agricultural Operation Technology BS*

**Selective in:**

**Elective in:**

**General Education:**

**Lecture:** *3*

**Lecture/Lab:**

**Gradable Lab:**

**Contact hours lecture:** *3*

**Contact hours lab:**

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

*This course is designed to evaluate equipment from a management perspective. Topics will cover machinery maintenance, leasing and purchasing equipment, depreciation, new and used equipment management factors, machine cost analysis, machinery specifications for selected applications and the factors involved in machinery operation.*

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

*This course is designed to evaluate primarily agricultural machinery from a management perspective. Topics will cover machinery financial management, leasing and purchasing equipment, depreciation, new and used equipment management factors, machine cost analysis, machinery specifications for selected applications and other factors involved in managing machinery and making machinery decisions.*

**Course Outcome Objectives:**

*Students adequately fulfilling the requirements of this course will be able to:*

- 1. Determine and describe fixed, operating and repair costs for farm machinery*
- 2. Perform a comprehensive analysis of farm machinery lease vs. buy vs. custom hire options*



3. *Calculate machine life and trade-in values for various types of farm/ranch equipment*
4. *Customize machinery selection and costs for specific farm/ranch requirements*
5. *Perform farm machinery financial and maintenance record keeping*
6. *Determine farm machinery enterprise analyses*
7. *Analyze machinery decisions and costs for agricultural production*
8. *Describe and utilize available computer software for farm/ranch machinery management*

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

Updated 09/29/05