Code # AG17 (2015)

**Bulletin / Banner Change Transmittal Form**

[x]  **Undergraduate Curriculum Council** Print 1 copy for signatures and save 1 electronic copy.

[ ]  **Graduate Council** - Print 1 copy for signatures and send 1 electronic copy to pheath@astate.edu

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| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Department Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**COPE Chair (if applicable)** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Department Chair:**  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**General Education Committee Chair (If applicable)**   |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**College Curriculum Committee Chair** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Undergraduate Curriculum Council Chair** |
| \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**College Dean** | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Graduate Curriculum Committee Chair** |
|  | \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Enter date…**Vice Chancellor for Academic Affairs** |

**1.Contact Person** (Name, Email Address, Phone Number)

Yifeng Ren yren@astate.edu, 870-972-2139

**2.Proposed Change**

Change the demand to times and correct course name.

TECH 3453 Advanced Technology Design Solid Works II (Delete II, Delete SolidWorks I from title, and modify description)

TECH 3453 Advanced Technology Design Solid Works II (Change from Spring, even to Fall)

TECH 3873 Tool Design (Change from Fall, even to Spring)

 TECH 4743 Computer Numeric Control (Change from Fall, Odd to Spring)

**3.Effective Date**

8/15/2016

**4.Justification –** *Please provide details as to why this change is necessary.*

1. We used to offer two SolidWorks courses earlier. One was deleted and TECH 3453 was the second course in the series of SolidWorks courses, hence the suffix II was in the title of TECH 3453. We have deleted SolidWorks I course from the curriculum. Therefore, there is no need of having suffix II in the title of the course. The term “SolidWorks I” is also being removed from the course description of TECH 3453 as this course does not exist anymore. Course description is also being modified for this course to reflect the content of the course.

2. Change rotation of courses to reflect our current course offering.

**Page 121, Emphasis Area (Computer Aided Drafting and Design):**

MATH 1033, Plane Trigonometry, 3

TECH 2703 Technical Graphics and AutoCAD, 3

TECH 2863, Principles of Technology, 3

TECH 3413, AutoCAD / Inventor, 3

TECH 3433, AutoCAD 3-D Modeling, 3

TECH 3453, Advanced Technology Design - Solid Works ~~II~~, 3

TECH 3843, Manufacturing Materials and Processes, 3

TECH 3853, Computer Aided Manufacturing (CAM), 3

TECH 3873, Tool Design, 3

TECH 4743, Computer Numeric Control, 3

TECH 4873, Motion and Time Study, 3

**Page 409, Technology (TECH)**

TECH 3453. Advanced Technology Design Solid Works ~~II~~ ~~Continuation of Technology Design~~, ~~SolidWorks I. Spring, even.~~ Advanced concepts of parametric modeling using SolidWorks software, approaches for designing mechanical parts, assemblies, and drawings. Fall.

TECH 3713.Fiscal Aspects An introduction to fiscal structures and problems encountered in the technically oriented enterprise. Fall.

TECH 372V.Technical Career Subjects Through this course students having work experience and company sponsored training will undergo portfolio assessment to determine credit hour award. Course may be repeated. No more than 25% of the degree may be satisfied with this course and TECH 189V. 1 to 9 hours. Fall, Spring.

TECH 3753.Legal Aspects An introduction to the types of legal problems encountered in the technically oriented enterprise. Fall, even.

TECH 3773.Statistics Basic concepts and methods of statistics in a technical environment, including descriptive statistics, significant tests, estimation, sampling, and correlation. Fall.

TECH 3803.Electrical Systems Fundamentals and utilization of electric power through appropriate units of equipment and systems for heating, cooling, working, and controls, energy transmission and measurements, equipment selection, operation, maintenance, and evaluation for given tasks. Prerequisite, MATH 1033. Spring.

TECH 3843. Manufacturing Materials and Processes Structure and properties of metals and other materials used in manufacturing. Formation, treatment, and modification of materials through manufacturing processes. Advantages and disadvantages of alternative materials and processes for specific applications. Important emerging technologies. Prerequisite, CHEM 1003 or high school chemistry and MATH 1033. Spring.

TECH 3853.Computer Aided Manufacturing CAM A study of 3D CAM software package that prepares NC programs for complex shapes and surfaces, basic contouring, drilling pocketing and geometric creations, including splines, ellipses, and lettering. Prerequisite, Keycreator experience. Spring, even.

TECH 3863.Industrial Safety An introduction of the basic concepts of safety and health. Topics include the role of the safety professional, social, legislative, and regulatory requirements as well as the concepts of hazard recognition, evaluation, and control. Fall.

TECH 3873.Tool Design Application of the theory developed in the fundamental technology courses to the design and fabrication of jigs, fixtures, and dies. Prerequisite or corequisite, TECH 3413. ~~Fall, even.~~ Spring.

TECH 389V.Occupational Internship This course provides the student with an opportunity to obtain additional experience in their emphasis area. Course may be repeated. Maximum degree credit for this course is three hours. Advisors approval is required. 1 to 3 hours. Fall, Spring, Summer.

TECH 4703.Experiential Learning Practicum This capstone course provides students with experiential learning related to their emphasis area, as an on the job position within a company or other approved location. Each Practicum will involve 10 to 12 specific learning experience objectives. Prerequisites, Approval of faculty supervisor. Restricted to majors in the Technology majors. Fall, Spring, Summer.

TECH 4743.Computer Numeric Control Basic terminology for computer aided manufacturing, interpretation of mechanical drawings in manufacturing, and learn manual G Code programming. Prerequisite, MATH1033.~~Fall,odd.~~Spring.