



TED210 Industrial Design Syllabus

Course Information

Credits	6
Campus	Washburn Institute of Technology
Address	5724 SW Huntoon
City/State/Zip	Topeka, Kansas 66604
Office Fax	785-273-7080

Description

Introduces mechanical drafting utilizing Autodesk's INVENTOR software through parametric 3D-design tools for assembly centered modeling and collaborative engineering. Develops fundamental knowledge in the areas of part and assembly modeling, using adaptive features, utilizing work groups, surfacing basics, data management, and lay-out presentation. Recommended prerequisites or recommended co-requisites: TED140, TED230

Textbooks

none

Student Learning Outcomes:

- A. Communicate effectively
- B. Integrate technology
- C. Learn effectively
- D. Demonstrate cooperative teamwork skills
- E. Apply safety in the workplace
- F. Think critically and creatively
- G. Demonstrate responsible work ethics

Competencies

1. Describe the user interface of Inventor for placing various components
2. Demonstrate the use of the various type of drawings that can be created within Inventor
3. Describe the procedure for creating a base sketch
4. Apply and display geometric constraints
5. Add dimensions to constrain a sketch
6. Demonstrate the use of the modify tools within Inventor
7. Demonstrate the use of the revolve tool
8. Demonstrate the use of the extrude tool
9. Create, display and use work planes
10. Create 2D drawings of models within Inventor

11. Demonstrate different views and how to create them
12. Create an assembly from existing part
13. Demonstrate mating constraints
14. Demonstrate insert constraints
15. Develop a sheet metal component
16. Create a flat pattern from a folded part
17. Demonstrate the use of flanges with sheet metal parts

Guidelines for Success

Assessment Plan

Assessment is an integral part of the educational process at Washburn Tech and accurate feedback is an important tool in continuously improving the institution's technical programs. Students can expect to participate in assessment activities prior to entry into programs, within specific courses and following program completion for specific fields of study.

Grading Criteria:

- A 92% - 100%
- B 84% - 91%
- C 76% - 83%
- D 68% - 75%
- F 67% or below

Attendance

A student can receive 1 hour make-up by completing a two page typed paper, on an approved subject, double spaced, 12 point font, and with at least 2 sources identified.

Disability

The Special Support Services (SSS) Office is responsible for assisting in arranging accommodations and for identifying resources at Washburn Institute of Technology for persons with disabilities. Qualified students with disabilities MUST register and provide documentation with the office to be eligible for services. New requests for accommodations should be submitted two months or more prior to the date services should begin; however, contact the SSS Office as soon as a need may arise. Depending on the accommodation request, four to eight week lead time may be needed for timely and effective provision of services. SSS coordinates and assist in arranging services it deems appropriate of eligible students on a case-by-case basis.

If you are a student with a disability that may substantially limit your ability to participate in this class and believe you will need accommodations, it is your responsibility to contact:

Special Support Services Coordinator

Phone: 785-228-6356

E-Mail: ssscoordinator@washburn.edu

