**Parametric Modeling CAD 201**

Allen County Career and Technical Center

2016-2017 Course Syllabus

# Instructor: Mrs. Dolorse Rice (dolorse.rice@allen.kyschools.us)

#  Room: 111 ACCTC Phone: 622-4711

**Course Description:**

This course introduces Parametric Modeling and Design of a CAD workstation in exploring the techniques associated with drafting and design using Parametric modeling software. It introduces creation of parametric models and explores associative function and flexibility of concurrent part design.

*Prerequisite: Introduction to Computer-Aided Drafting, and Intermediate Computer-Aided Drafting*

**Content/Process**

Students will:

1. Demonstrate and practice safe work habits in the lab area.

2. Demonstrate an awareness of the terminology and concepts of Parametric Modeling.

3. Demonstrate basic parametric modeling procedures.

4. Demonstrate the ability to create parametric sketches.

5. Create fully constrained sketches.

6. Apply/modify geometric constraints and dimensions to capture and alter the design geometry of the par.t

7. Demonstrate through practice, the construction of simple parametric solid models.

8. Demonstrate the ability to perform feature-based modeling operations on parts.

9. Perform analyses on the model.

10. Perform simple assembly modeling.

11. Create desired working drawing layouts and dimensioned views from parametric solids.

**Connections**

\*State Standards

\*KOSSA

\*State Technical Standards

\*New Generation Science Standards

\*AutoDesk Industry Standards

\*SolidWorks Industry Standards

\*Post-Secondary Education

\*CTSO - Skills USA

**Classroom Procedures**

1. **Attendance:**
	1. Class attendance is very important, but especially in labs where work cannot be made up outside of class. If absent from class, the student is responsible for completing missed work. If the student is absent on quiz or exam day, he must be prepared to take the exam when returning to class.
	2. Tardies will be referred to detention as specified in the student handbook.
	3. All students are to be in their seats when the bell rings, and completing the daily assigned bell ringer. This assignment will be on the board each day.
2. **Handbook policies:** Handbook policies regarding use of cell phones and other electronic devices will be

followed. Students are expected to follow the school guidelines.

1. **Materials:**

**1. Materials that student needs to purchase: (1) 1/2” binder with 2 pockets. Students must bring a pencil to class every day.** **Pencils will not be provided by instructor.**

**2. Computer Equipment:**

Dell computer package includes processor, monitor, keyboard, mouse and speakers. All necessary computer equipment and supplies are provided; however, should a student damage any piece of the equipment (even accidentally), that student is required to replace that piece of equipment at equal value.

**3. Textbooks:**

1. Applying AutoCAD 2010, by Terry Wohlers, the McGraw-Hill Companies, Inc.
2. Autodesk Inventor 2010 Essential Plus by Daniel T. Banach., Travis Jones, and Alan J. Kalameja. DELMAR Cengage Learning.
3. Autodesk 3ds Max Design 2010 FUNDAMENTALS by Schroff Development Corporation.
4. Textbooks are provided for students’ use in class, but if misused or damaged by a student, then that student is required to pay for the determined damage value.
	1. **Software:** AutoDesk: AutoCAD 2015, Inventor 2015, 3Ds Max Design 2015 and SolidWorks 2015.
5. **Course Requirements and Grades:**
6. **Activities:** Each lesson or unit requires several practice activities or drawings. These drawings and activities will be scored on accuracy, neatness, and timeliness, because in computer-aided drafting it is important that you learn to work quickly, but correctly and always neatly. These drawings will be the largest portion of your grade, so do your best on every one. Your work effort, attitude, cooperation and behavior will be considered when scoring your productivity.
7. **Drafting Portfolio:** A comprehensive notebook including all drawings, activities, and class notes will be graded each 4-1/2 weeks. This is a mandatory activity.
8. **Quizzes:** Unit quizzes will be given at the end of each unit. These will be short quizzes covering only the current lesson (unit). The quizzes will be multiple choice, short answer, matching, etc.
9. **Midterm:** The midterm exam will be comprehensive, covering all material discussed in class up to that time. It will be of a similar type as the quizzes, only more thorough.
10. **Final Exam:** The final exam will be comprehensive, covering all the material discussed in class for the entire semester. Learning CAD is a building process much like learning a job. You learn new things every day, but you can’t forget the things that you learned previously in that job. The final exam will cover all you have learned and will be applied to a drawing, as well as a written exam.

6. **Grading:** Drawings, Activities, Drawing Portfolio, Bellringers, Unit Quizzes, Midterm and Final are all graded on a 100 point grading system, but may be assigned different percentages in the grading process.