**Drafting and Design 11/12**  Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Directed Project Proposal

This course allows you to explore CAD by taking on projects that (no matter what you are drawing) challenges you to consider and DO the following:

* **The 5 Step Design Process**
1. Research and identification of design problem (collection of key images).
2. Sketching (concept and proposal development).
3. Drawing (with technical information).
4. Refining (ensuring function and clarity)
5. Presenting and Implementation.
* **Creation a Comprehensive Project Proposal**
	+ Description of design problem/goals
	+ Notes and pics on inspiration
	+ Inclusion of mini-deadlines
	+ Projection of time required for completion
* **Use of CAD**
	+ Drawings of multi-views
	+ Use of layers for multi-views of a design.
	+ Understanding and utilizing new tools.
	+ Precision dimensioning.
	+ Increasing efficiency (use of key commands).
	+ Comprehensive technical information.
	+ Imaginative 3D renderings
* **Demonstration of an appreciation for:**
	+ Aesthetics
	+ Ergonomics (function, comfort, user-friendliness)

**Evaluation** is based on the research and drawings that you create as done in accordance with the above criteria. Demonstration of effort to fulfill proposal goals will be key.

Design suggestions:

**Architecture-based**

* Renovation and/or addition plans

Of a house kitchen

* Floating home
* Cottage in the woods
* Sustainable house
* Four story, 6 unit condo

**Transportation-based**

* Bicycle design
* Scooter or electric bike design
* Motorcycle design
* Light Rail Transit (train)
* 3 wheeled vehicle
* redesigned road to accommodate

multiple transportation-forms

**Mechanical**

* a complex machine part
* a power tool with cross section

**Geometry study**

* celtic knot design
* 2d or 3d logo for personal or corporate use
* dartboard or other game board
* clothing pattern

**Consumer product**

* New appliance or electronic device
* Power tool
* A toy
* A clothing patters

**Landscape Design**

* Back or Front yard renovation

(Including deck and paved structures)

* Public green area

**Drafting and Design 11/12** Name(s):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Student Directed Project Proposal

Project Title:

Rationale/Motivation/Inspiration:

Description of Projected Design Drawings:

Learning Goals (drafting-related, design-related, CAD-related):

Process and timelines:

1.

2.

3.

4.

5.

6.

Presentation method:

Additional unique features of this project: