

## Course Syllabus

### Architecture Technology (10<sup>th</sup> Grade)

Instructor: **Leonardo Malave**

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#### Course Description:

This course provides students the opportunity to design and create 3D models of various products using Inventor software. Using a 3D printer students are able to produce prototypes of their designs. During the second half of the year, the student learn how to create all the technical documents required for the construction of a residential home using AutoCAD software.

#### Course Objectives:

The students will be able to:

- Create 3D parts and assemblies.
- Design consumer products.
- Produce prototypes of their designs using a 3D printer.
- Identify commonly used structural components.
- Read, interpret and produce complete floor plans, foundation plans and roof plans.
- Generate wall sections, elevations, and detail views.
- Acquire working knowledge of AutoCAD and Inventor software.

#### Course Requirements:

Individual projects, group projects, technical writing, research.

#### Grading:

- Class Participation            10%
- Class/home work:            25%
- Tests/Quizzes:                25%
- Projects:                         40%

Grading Scale			
A+	98-100	C+	76-79
A	92-97	C	72-75
A-	90-91	C-	70-71
B+	86-89	D	65-69
B	82-85	F	Below 65
B-	80-81	Minimum Grade: 50	

#### Textbooks:

- AutoCAD and its Applications-COMPREHENSIVE 20<sup>th</sup> Edition Terence M. Shumaker, David A. Madsen, David P. Madsen, and Craig P. Back, The Goodheart-Willcox Co. Inc.
- Parametric Modeling with Autodesk Inventor 2013 Randy H. Shih, SDC Publications
- Drafting & Design: Engineering Drawing using Manual and CAD Techniques 7<sup>th</sup> Edition Clois E. Kicklighter & Walter Brown, The Goodheart-Willcox Co. Inc.
- Architecture: Residential Drafting and Design 12<sup>th</sup> Edition Clois E. Kicklighter & W. Scott Thomas, The Goodheart-Willcox Co. Inc.