**CHAMP Course Map**

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| **Course Name:** CAD 101 Computer Aided Drafting I |
| **Instructor Name:** Rick Glesner | **Date:** July 2016 |
| Course Competencies:1. Demonstrate file management.
2. Upload documents to AutoDesk 360.
3. Create objects using the Cartesian coordinate system and dynamic input.
4. Develop template drawings using standard drawing procedures.
5. Apply the use of drawing aids to CAD drawings.
6. Demonstrate the use of layers, color, linetypes and lineweights.
7. Create and construct geometric shapes.
8. Practice the application of editing objects.
9. Demonstrate the ability to create polylines and splines.
10. Demonstrate the ability to edit polylines, splines and lines.
11. Create polar and rectangular arrays.
12. Apply text to drawings.
13. Assemble text and symbols within CAD tables.
14. Demonstrate the commands necessary to perform basic to advanced dimensioning skills.
15. Create dimension styles.
16. Implement proper dimension standards per industry standards.
17. Demonstrate the ability to access the software HELP.

Course Description: Focuses on basic computer aided drafting skills using the latest release of the AutoCAD software. Includes file management, Cartesian coordinate system & dynamic input, drawing templates, drawing aids, linetype and lineweights, layer usage, drawing & editing geometric objects, polylines & splines, array, text applications, creating tables, basic dimensioning, and Help access. |

**Course Materials (Text, Edition and any other publisher items)**

**Textbooks and/or Resources:**

**Resources:**

**Rubrics:** Rubrics and specific grading criteria for EACH assessment should be included at the end of the course map.

| **Module # and Title** | **CCNS Competencies** | **Content, Activities or Challenges****(Learner Interaction** **& Engagement)**  | **Assessments, Rubrics (Feedback)** | **Publish to OER** |
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| Start Here | N/A | Start Here OverviewCAD101 CompetenciesCAD101 SyllabusGrading PolicyAttendance PolicyCommunication MethodsAmericans with Disabilities ActStudent Code of Conduct |  |  |
| Module 1: AutoCAD Interface | 1, 2, 15, 17 | Lecture: Getting Started in AutoCADLecture: Commands and Techniques |   | CAD 101 PowerPointCAD 101 Lecture Notes |
| Module 2: Relative and Absolute Coordinates | 3, 4, 5, 6, 7, 8, 9, 10, 12 | Lecture: Drawing in Model Space and Paper Space | Assignment: Drawing with Relative Coordinates Assignment: Drawing with Absolute Coordinates | CAD 101 Drawing 1: Relative CoordinatesCAD 101 Drawing 2: Absolute Coordinates2D Grading Rubric  |
| Module 3: Alphabet of Lines | 5, 6, 7, 8, 9, 10, 12, 14, 15, 16 | Lecture: Paper Sizes, Lines, and Scales | Assignment: Alphabet of Lines | CAD 101 Drawing 3: Alphabet of Lines |
| Module 4: Drawings and Techniques | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16 | AutoCAD Drawing Assignments:* Arrays
* Offset & Trim
* Polar Array
* CTTR
* Mirror
* Offset Circle
* Angle Control
 | Assignment: Drawing ArraysAssignment: Drawing Offset and TrimAssignment: Polar ArrayAssignment: Circle Tangent Tangent Radius (CTTR)Assignment: MirrorAssignment: Offset CircleAssignment: Angle Control  | CAD 101 Drawing 4: ArraysCAD 101 Drawing 5: Offset and TrimCAD 101 Drawing 6: Polar ArrayCAD 101 Drawing 7: CTTRCAD 101 Drawing 8: MirrorCAD 101 Drawing 9: Offset CircleCAD 101 Drawing 10: Angle Control |
| Module 5:Final Drawing | 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 | Final Drawing | Assignment: Final Drawing | CAD 101 Drawing 11 |

