# Course Description Form

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| 1. Course Name: | |
| Computer Applications 3 | |
| 2. Course Code: | |
| MPAC404 | |
| 3. Semester / Year: | |
| Annual | |
| 4. Description Preparation Date: | |
| 2024/09/23 | |
| 5. Available Attendance Forms: | |
| ☒ Lecture | |
| ☒ Lab | |
| 6. Number of Credit Hours (Total) / Number of Units (Total) | |
| Number of Credit Hours (150) / Number of Units (7) | |
| 7. Course administrator's name (mention all, if more than one name) | |
| Name: Assist. Lech. Saja Abdul Hamza Yas  Email: saja.abdulhamza@uowa.edu.iq | |

## 8. Course Objectives

| Course Objectives | **AutoCAD 3d course teaches students to create basic 2D and 3D drawings using drawing and editing tools, organizes drawing objects on solids, basic dimensions, and prepares to plot. This course is designed for Mechanival Engineers.** |
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## 9. Teaching and Learning Strategies

| Strategy | AutoCAD 3D certificate goal is to educate individuals on extra-advanced functions, the strategy, how to design and model items in the 3D design software program, enveloping surface areas, and solids in visualizing engineering designs. |
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## 10. Course Structure

| | **Material Covered** |
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| **Week 1** | Introduction to AutoCAD -3D, workspace, visual style, 3d views, view ports, right hand rule, world coordinate and user coordinate systems and types of coordinate systems.  3D solids (box, wedge and cylinder). |
| **Week 2** | 3D solids (cone and tours).  3D solids (sphere and pyramid). |
| **Week 3** | Examples to 3D solids.  Basic solid editing (union, subtract and intersect) with examples. |
| **Week 4** | Fillet and chamfer with applied examples. |

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| | 3D operations (3d move and 3d rotate) with examples. |
| **Week 5** | 3D operations (3d align and 3d mirror) with examples.<br>3D operations (3d array and slice) with examples. |
| **Week 6** | More applied examples.<br>User coordinate system ( origion, face and objects) with examples. |
| **Week 7** | User coordinate system (view, world ,x-y-z) with examples.<br>User coordinate system ( z-axis and 3 points) with examples. |
| **Week 8** | Advanced 3d commands (extrude and loft) with examples. |
| **Week 9** | Advanced 3d commands (revolve, sweep) with examples.<br>Advanced 3d commands (presspull and section plane) with examples. |
| **Week 10** | Advanced solid editing/face (extrude, move,rotate and offest). |
| **Week 11** | Advanced solid editing/face (taper, delete, copy, color, material, undo and exit). |
| **Week 12** | Applied examples.<br>Advanced solid editing/edge (copy and color). |
| **Week 13** | Advanced solid editing/body (imprint, separate, shell, clean and check). |
| **Week 14** | Surface (box, cone, dome and mesh).<br>surface (pyramid and sphere) |
| **Week 15** | surface (torus and wedge) with examples. |

## 11. Course Evaluation

Distributing the score out of 100 according to the tasks assigned to the student such as daily preparation, daily oral, monthly, or written exams, reports .... etc

## 12. Learning and Teaching Resources

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| Main references (sources) | Autocad user manual |
| Recommended books and references (scientific journals, reports…) | Introduction to AutoCAD **2022** |
| Electronic References, Websites | https://help.autodesk.com/view/ACD/2022/ENU/ |