**SCHEME OF WORK**

**Module Name: Matlab CAD FEA**

**Degree Year: 2**

**Semester: 1**

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| Week | Objective |
| 1 | Construct programs using built-in and user-defined functions. |
| 2 | Use ODE solvers to obtain responses to realistic problems. |
| 3 | Debug programs solving engineering problems using built-in or user-defined functions. |
| 4 | Design and Debug scripts employing different flow control mechanisms. |
| 5 | Create masked subsystems on Simulink. |
| 6 | Define variables in the model workspace and save results to file. |
| 6 | Implement an ODE as a Simulation Diagram to get to a solution. |
| 8 | Model and simulate a simple system in Simulink |
| 9 | Build a solid model from a drawing |
| 10 | Generate a drawing file from a solid model with appropriate dimensioning. |
| 11 | Build an assembly of parts. |
| 12 | Generate a drawing of an assembly of parts. |
| 13 | Perform static analysis on a simple structure in software. |
| 14 | Perform a convergence study on a structure under static investigation. |
| 15 | Perform modal analysis on a simple structure in software. |