

Date:	Examination No.:	Version:2021-2022	Start:1/2/2023
Module Name - Code	CAD-CAM		
Module Language:	English		
Responsible:	Assist. Prof. Dr. Abdulkader Ali		
Lecture (s):	None		
College:	College of Engineering – Salahaddin University-Erbil		
Duration:	15 week – 1 semester		
Course outcomes:	<ul style="list-style-type: none"> Fundamental principles of digital manufacturing. Theoretical knowledge and practical of Computer-Aided Design (CAD) techniques and Computer-Aided Manufacturing (CAM) for computer numerical control (CNC). Theoretical knowledge and practical skills of processing of CNC cutting machines in manufacturing (Plasma, Milling, turning). 		
Course Content:	<ul style="list-style-type: none"> Introduction in Digital Manufacturing Introduction to CAD System (techniques, formats) An Overview of the NC and CNC machines Classification of the NC and CNC machines and Major Components of a CNC System Cutting Tools for CNC machine and CNC Work For CNC turning, milling and Plasma cutting machine <ul style="list-style-type: none"> Introduction to Programming creating of work plan process Programming CNC machine and creating G Code Programming CNC machine CAD/CAM post-processing software Digital Measurement system 		
Literature:	Hans B. Kief and Helmut A. Roschiwal " CNC Hand Book"- 2012 Suk-Hwan Suh • Seong-Kyoon Kang Dae-Hyuk Chung • Ian Stroud "Theory and Design of CNC Systems		
Type of Teaching:	2 hrs. in lectures + 2 hrs. in practical		
Pre-requisites:	None		
Preparation Modules:			
Frequency:	Spring Semester		
Requirements for credit points:	For the award of credit points, it is necessary to pass the module exam. It contains: Three examination during the academic semester, Assignments and Final examination. Student's attendance is required in all classes.		
Credit point:	5		

Grade Distribution:	<p>The following grade system is used for the evaluation of the module exam:</p> <p>The module exam is based on the summation of two categories of evaluations:</p> <p>First: (50%) of the mark is based on the academic semester effort which includes</p> <ul style="list-style-type: none"> - Examination during the academic semester = 30%. - Practical examinations and Assignments = (20%). <p>Second: (50%) of the mark is based on final examination that is comprehensive for the whole of the study materials reviewed during the academic semester.</p> <ul style="list-style-type: none"> - Examination during the academic semester = 30%. - Practical examination = (20%).
Work load:	<p>The workload is 135 hrs. It is the result of 45 hrs. attendance and 90 hrs. self-studies (Assignments, preparation for exam and applications).</p>