



**JORDAN UNIVERSITY OF SCIENCE AND
TECHNOLOGY
INDUSTRIAL ENGINEERING DEPARTMENT**



Course Number and Name	IE 466 Manufacturing Processes II
Course Description	This course is a continuation to Manufacturing Processes I, and introduces more of the manufacturing processes and the equipment used. The course covers the topics of Sheet metal forming, Powder-Metal Processing, Forming and shaping of ceramics and glass, plastics and composite materials, Joining of materials, and Special processes.
Credits and contact hours	3 Credit hours; 3 hours of lectures
Pre- or Co-requisites	IE364 Manufacturing Processes I
Required/ Elective	Required

Text Book(s)	Manufacturing Engineering and Technology, by S. Kalpakjian, Addison Wesley, 2010, 6th edition or newer.
Software tools	N/A
References	<ol style="list-style-type: none"> 1) P. Ostwald, J. Munoz, Manufacturing Processes and Systems, 9th Edition, John Wiley & Sons, 1997 2) International Journal of Advanced Manufacturing Technology, IFS (Publications) Ltd. 3) Journal of Manufacturing Systems, Society of Manufacturing Engineers (SME).

Course Objectives	<ul style="list-style-type: none"> • To teach students to analyze material processing and manufacturing systems • To train students in product/process development cycles. • To train students to conceptualize and synthesize manufactured parts and manufacturing processes. • Train students to reverse engineer products and systems around them. • Develop professional ethics, encourage lifelong learning, foster teamwork, and enhance students' communication skills. Additionally, encourage students to be entrepreneurs.
Measured Outcomes	G, I

Topics	Chapters in Text	Evaluation	
Introduction to Manufacturing Processes	Chapters 0	Class Work	5
Sheet metal forming	Chapter 16	Factory visit	5
Powder Metal processing and Equipment	Chapter 17	First Exam	25
Ceramics, glasses, plastics, composite.	Chapters 18 and 19	Second Exam	25
Joining Processes and Equipment	Chapter 30-32	Final Exam	40