

Jordan University of Science and Technology Faculty of Engineering Industrial Engineering Department

IE468 Manufacturing Processes (2)

Summer Semester 2019-2020

Course Catalog

3 Credit Hours. 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.

| Text Book | | | | | |
|----------------------|--|--|--|--|--|
| Title | e Manufacturing Engineering and Technology | | | | |
| Author(s) | S. Kalpakjian, Addison Wesley | | | | |
| Edition | 7th Edition | | | | |
| Short Name | Text book | | | | |
| Other Information | | | | | |

Course References

| Short name | Book name | Author(s) | Edition | Other Information |
|---------------|---|--|----------------|----------------------|
| Ref #1 | Manufacturing Engineering and Technology | P. Ostwald, J. Munoz, John Wiley & Sons, 1997 | 9th Edition | |
| Ref #2 | International Journal of Advanced Manufacturing Technology | IFS (Publications) Ltd. | 8th Edition | |

| Instructor | | |
|-----------------|---------------------|--|
| Name | Dr. Omar Bataineh | |
| Office Location | C5L2 | |
| Office Hours | | |
| Email | omarmdb@just.edu.jo | |

| Instructor | | |
|-----------------|------------------------|--|
| Name | Mrs. Maysa Alshraideh | |
| Office Location | M6L0 | |
| Office Hours | | |
| Email | mashraideh@just.edu.jo | |

Class Schedule & Room

Section 1:

Lecture Time: Sun, Mon, Tue, Wed : 11:30 - 13:00 Room: منصبة الكترونية

Section 2:

Lecture Time: Sun, Mon, Tue, Wed : 16:00 - 17:30 Room: منصبة الكترونية

| Prerequisites | | | | |
|---|-----------------------------------|----------------------|--|--|
| Line Number Course Name Prerequisite Type | | | | |
| 293660 | IE366 Manufacturing Processes (1) | Prerequisite / Study | | |

| Tentative List of Topics Covered | | | | |
|----------------------------------|---|-----------------------|--|--|
| Weeks | Торіс | References | | |
| Weeks 1, 2 | Introduction to Manufacturing Processes | From Text book | | |
| Weeks 3, 4, 5 | Sheet Metal Forming and Press Working | From Text book | | |
| Weeks 6, 7, 8 | Forming and Shaping of plastics and composite materials | From Text book | | |
| Weeks 9, 10, 11 | Joining of Materials | From Text book | | |
| Weeks 12, 13 | Special Processes and Technologies | From Text book | | |

| Mapping of Course Outcomes to Program Student Outcomes | Course Outcome Weight (Out of 100%) | Assessment method |
|---|--|----------------------|
| Analyze material processing and manufacturing systems [1SLO7] | 20% | |
| Understand how to conceptualize and synthesize manufactured parts and manufacturing processes [1SLO7] | 40% | |
| Understand the properties, parameters and selection of manufacturing processes [1SLO7] | 40% | |

| Relationship to Program Student Outcomes (Out of 100%) | | | | | | |
|--|------|------|------|------|------|------|
| SLO1 | SLO2 | SLO3 | SLO4 | SLO5 | SLO6 | SLO7 |
| | | | | | | 100 |

| Evaluation | | |
|-----------------|--------|--|
| Assessment Tool | Weight | |
| First Exam | 20% | |
| Second Exam | 20% | |
| Group Project | 20% | |
| Final Exam | 40% | |

| | Policy | | | |
|--------------------|--|--|--|--|
| attendence | Attendance will be checked at the beginning of each class. University regulations will be strictly followe students exceeding the maximum number of absences. In addition, 0.5 point will be deducted from the grade of homework for each unexcused absence. | | | |
| Project | Term projects will be conducted by a group of 3 students. Each group will select a project from a list of projects suggested by the instructor. The team should share and distribute responsibility. The group will submit a professional report and make an oral presentation. Making use of all resources, e.g., patents, journal publications, internet, labs, etc., is encouraged. The report must be typed. Hand-written reports are not accepted. The report should not exceed 10 pages. Late Reports will be penalized. | | | |
| Student Conduct | It is the responsibility of each student to adhere to the principles of academic integrity. Academic integrity means that a student is honest with him/herself, fellow students, instructors, and the University in matters concerning his or her educational endeavors. Cheating will not be tolerated in this course. University regulations will be pursued and enforced on any cheating student. | | | |

Date Printed: 2020-09-24