

University: Cairo Faculty: Engineering Department: Aerospace Engineering

Course Specifications

Programme(s) on which the course is given: **Aerospace Engineering**

Major or Minor element of programmes:

Department offering the programme: **Aerospace Engineering**

Department offering the course: **Mechanical Design & Production**

Academic year / Level: 1st year **Aerospace**

Date of specification approval: March 2015.

A- Basic Information

Title: Production Technology(2) Code: MDP 122

Credit Hours: 4

Lecture: 2(4hrs) Tutorial: (1 hrs) Practicals: Total:5hrs

B- Professional Information

1 – Overall Aims of Course

Knowledge of different machine tools.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding:

a1- knowledge of some basics of machine tools

b- Intellectual Skills

b1- problem solving

c- Professional and Practical Skills

c1- Ability to estimate machining time and power consumption.

d- General and Transferable Skills

d1- . Use of technological tool.

3- Contents

Topic	No. of hours	Lecture	Tutorial/Practical
Introduction to machining processes	4	2	2
Cutting elements	4	2	2
Cutting with single edge cutting tools	4	2	2
Cutting tool materials and its characteristic	4	2	2
Cutting velocity and feed	4	2	2
Machining time- power consumption in cutting	4	2	2

Practical machining operation	6	4	2
Cutting tools	6	4	2
Basic elements of machine tools and specifications	6	4	2
Work fixation-Tool fixation-process sheet	8	6	2

4– Teaching and Learning Methods

- 4.1- Lectures
- 4.2- Workshop

5- Student Assessment Methods

- 5.1 Mid-term exam to assess the comprehension of the student
- 5.2 Reports to assess the understanding of the application in the workshop
- 5.3 to assess
- 5.4

Assessment Schedule

Assessment 1 weekly report	Week:..every week
Assessment 2 Mid-term	Week: 7
Assessment 3 Final exam	Week: end of the term
Assessment 4.....	Week:

Weighting of Assessments

Mid-Term Examination	20	%
Final-term Examination	60	%
Oral Examination	10	%
Practical Examination	10	%
Semester Work		%
Other types of assessment		%
Total	100	100%

Any formative only assessments

6- List of References

6.1- Course Notes

Lecture notes

6.2- Essential Books (Text Books)

6.3- Recommended Books

Fundamentals of metal machining and machine tools (Boothroyd)

6.4- Periodicals, Web Sites, ... etc

7- Facilities Required for Teaching and Learning

Data show, educational video films

Course Coordinator:

Prof: Adel S. Salama

Dr. Magdy Maurice

Head of Department: Prof. Ayman H. Kassem

Date: March, 2015.