



SUBJECT DATA SHEET AND REQUIREMENTS
 last modified: 17th May 2016
MANUFACTURING ACCESSORY DEVICES II.
GYÁRTÓESZKÖZÖK II.

| 1 | Code | Semester nr. or fall/spring | Contact hours/week (lect.+semin.+lab.) | Requirements p / e / s | Credit | Language |
|---|---------------------|-----------------------------------|--|---------------------------|----------|----------------|
| | BMEGEGT 0005 | spring | 3+0+0 | e | 3 | English |

2. Subject's responsible:

| Name: | Title: | Affiliation (Department): |
|-------------------|---------------------|---|
| Dr. Gyula Mátyási | Associate professor | Dept. of Manuf. Science and Engineering |

3. Lecturer:

| Name: | Title: | Affiliation (Department): |
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| Dr. Gyula Mátyási | Associate professor | Dept. of Manuf. Science and Engineering |
| Dr. Sándor Markos | Senior Lecturer | Dept. of Manuf. Science and Engineering |

4. Thematic background of the subject:

Basic knowledge of metal cutting. Manufacturing accessory devices I.

5. Compulsory / suggested prerequisites:

There is no special prerequisite for this subject.

6. Main aims and objectives, learning outcomes of the subject:

Learning about database of manufacturing accessory devices. Construction design and manufacturing planning of measurement and control equipment. Work piece clamping method and devices. Quality assurance in the tool manufacturing. Production programming. Rapid Tooling.

7. Method of education:

Lecture 3 h/w

8. Detailed thematic description of the subject:

| Week | Lecture |
|------|--|
| 1. | Cutting tool systems. Intelligent tools and tool holders. |
| 2. | Defining the tool selection criteria. Special requirements in mould and die tools. |
| 3. | Algorithms of defining the tool selection criteria.. |
| 4. | Tool Management in Production Operations and CNC Systems. Tool Measurement and Monitoring. |
| 5. | Close-to-Process Production Measurement Technology in Combination with Mechatronic Tool Systems. |
| 6. | Planning of the work piece clamping method and devices. |
| 7. | Programming of the work piece clamping devices. |
| 8. | Application of five axes machining technology. |
| 9. | Rapid Tooling. Theory and application area. Rapid tooling process chain. |

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| 10. | Methods of Rapid tooling. Architecture of Rapid tooling integrated manufacturing system. |
| 11. | Hybrid systems: cuttings and built up technology. |
| 12. | Quality assurance in the tool manufacturing. |
| 13. | Digital Devices Development and Manufacturing: From CAD and CAM to PLM. |
| 14. | New opportunities and challenges. Trends, and future directions. Research areas. |

9. Requirements and grading

a) in term-period

N.A.

b) in examination period

Oral exam.

c) Disciplinary Measures Against the Application of Unauthorized Means at Mid-Terms, Term-End Exams and Homework

The following students are subject to disciplinary measures.

- Those students who apply unauthorized means (book, lecture notes, infocommunication means, tools for storing and forwarding electronic information, etc.), different from those listed in the course requirements or adopted by the lecturer in charge of the course assessment, in the written *mid-term exams* taken, or invite or accept any assistance of fellow students, with the exception of borrowing authorized means, will be disqualified from taking further mid-term exams in the very semester as a consequence of their action. Further to this, all of their results gained in the very semester will be void, can get no term-end signatures, and will have no access to Late Submission option. Final term-end results in courses with practical mark will automatically become Fail (1), the ones with exam requirements will be labelled Refused Admission to Exams.
- Those students whose *homework* verifiably proves to be of foreign extraction, or alternatively, evident results or work of a third party, are referred to as their own, will be disqualified from taking further assessment sessions in the very semester as a consequence of their action. Further to this, all of their results gained in the very semester will be void, can get no term-end signatures, and will have no access to Late Submission options. Final term-end results in courses with practical mark will automatically become Fail (1), ones with exam requirements will be labelled Refused Admission to Exams.
- Those students who apply unauthorized means (books, lecture notes, infocommunication means, tools for storing and forwarding electronic information, etc.), different from those listed in the course requirements or adopted by the lecturer in charge of the course assessment, in the written *term-end exams* taken, or invite or accept any assistance of fellow students, with the exception of borrowing authorized means, will immediately be disqualified from taking the term-end exam any further as a consequence of their action, and will be inhibited with an automatic Fail (1) in the exam. No further options to sit for the same exam can be accessed in the respective exam period.
- Those students who alter, or make an attempt to alter the already corrected, evaluated, and distributed test or exercise/problem,
 - as a consequence of their action, will be disqualified from further assessments in the respective semester. Further to this, all of their results gained in the very semester will be void, can get no term-end signatures, and will have no access to Late Submission options. Final term-end results in courses with practical mark will automatically become Fail (1), ones with exam requirements will be labelled Refused Admission to Exams;
 - and will immediately be inhibited with an automatic Fail (1) in the exam. No further options to sit for the same exam can be accessed in the very same exam period.

10. Retake and repeat

N.A.

11. Consulting opportunities:

1 hr/week upon appointment by e-mail

12. Reference literature (recommended):

13. Home study required to pass the subject:

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|----------------------------|------------|-------------------|
| Contact hours | 42 | h/semester |
| Home study for the courses | 20 | h/semester |
| Home study for the exam | 48 | h/semester |
| Total: | 110 | h/semester |

14. The data sheet and the requirements are prepared by:

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| Name: | Title: | Affiliation (Department): |
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