SYLLABUS

1. Course title:

CASTING

2. Code:

3. Cycle of study:

1

4. ECTS credits:

4

5. Type of course:

Mandatory

6. Prerequisites:

7. Class restrictions:

8. Duration / semester(s):

1 8

9. Weekly contact hours and student workload:

	Semester (1)	Semester (2)	(for two-semester courses)	Workload: (hours)	
9.1. Lectures	2			Classes:	33,75
9.2. Seminars	1			Individual work:	73,17
9.3. Laboratory/Practice classes	0			In total:	106,92

10. Faculty:

Faculty of Mechanical Engineering Tuzla

11. Department/study program:

Production Mechanical Engineering

12. Lecturer:

Dr.sc. Samir Butković,professor

13. Course aims:

Students receive knowledge in casting technologies, casting alloys, casting defects, as well as the fundamentals of casting metallurgy.

14. Learning outcomes:

After completing this course students are able to choose and project casting technology for required shape, material and quality of products.

15. Course content:

1. Introduction in casting,
2. Casting alloys,
3. Casting metallurgy, Mechanism of crystallization of pure metals and alloys,
4. Gray cast iron,
5. Ductile Cast Iron,
6. Malleable Cast Iron, Vermicular cas iron,
7. Test I, Aluminium alloy casting,
8. Clasification of casting processes,
9. Sand casting,
10. Centrifugal casting,
11. Investment casting, Vacuume casting,
12. Pressure die casting,
13. Melting furnaces, Casting molds and Dies,
14 Casting defects.
15. Test II

16. Learning methods:

Lectures with active participation of students,
Exercises,
Consultations,
Preparation and presentation of seminar papers.

17. Assessment methods:

Activity during lectures,
2 tests (solving of tasks),
2 test (understanding of theory)
Seminar/homework papers,
Final exam,

Knowledge tests results are recognized as cumulative result if achieved results are positive after each individual exam and gives at least 50% of the planned and/or the necessary knowledge and skills. In order to pass the subject the student must achieve a minimum of 54 cumulative points.

The condition for signing is the student's attendance at a minimum of 70% of lectures and exercises.
Grading Scale:

Grade	Descriptive	Letter	Points
5 (five)	Does not meet minimum criteria	F, FX	<54
6 (six)	Meets minimum criteria	E	54÷64
7 (seven)	Generally good, but with significant shortcomings	D	65÷74
8 (eight)	Average, with noticeable errors	C	75÷84
9 (nine)	Above average, with occasional errors	B	85÷94
10 (ten)	Exceptional success with no errors or with minor errors	A	95÷100.

18. Assessment components:

Attendance and activity during lectures, 6 points
2 tests (solving of tasks), 2 tests x 10 points=20 points
2 test (understanding of theory), 2 tests x 12 points=24 points
Seminar/homework papers, 10 points
Final exam, 40 points

19. Mandatory reading list:

1. Risto Kovač, Tehnologija izrade odlivka, Udžbenik, Fakultet tehničkih nauka, Novi Sad,2002.
2. ASM International Handbook, Casting, Volume 15, March 1998.

20. Additional reading list:

1. J.Gilbert Kaufman, Elwin L.Rooy, Aluminium Alloy Casting, ASM International, USA, 2004.

21. Web sources:

22. Applicable from the academic year:

23. Adopted in the Faculty/Academy session: