

Course code

B.5.4.

Course item

.....

1. INFORMATION ABOUT THE COURSE

A. Basic information

Course title	Machine Building
Field of study	Computer Aided Engineering
Cycle	<i>Second</i>
Study profile	<i>Academic</i>
Study mode	<i>Full-time</i>
Specialisation	<i>Not relevant</i>
Unit responsible for the field of study	<i>Faculty of Mechanical Engineering</i>
Lecturer	<i>Dr hab. inż. Dariusz Boroński, Prof. nadzw. UTP</i>
Introductory courses	<i>Strength of materials, computer graphics</i>
Prerequisites	<i>No prerequisites</i>

B. Semester/ weekly timetable

Semester	Lectures	Classes	Laboratories	Project classes	Seminars	Field experience	ECTS credits
I	30	15	-	-	-	-	4

LEARNING OUTCOMES (acc. to National Qualifications Framework)

No.	Description of learning outcomes	Reference to learning outcomes for the field of study	Reference to learning outcomes for the area of study
KNOWLEDGE			
K1	student has an elementary knowledge on: machines structures, principle of operation of typical machine units	CAE_W02 CAE_W04	T2A_W03, T2A_W07, T2A_W04, T2A_W05
K2	student has an elementary knowledge on: methods of modeling and calculation of structural parts and units	CAE_W02 CAE_W04	T2A_W03, T2A_W07, T2A_W04, T2A_W05
SKILLS			
S1	student possess the ability to analyse, to interpret and to critically evaluate information necessary for design of simple and complex machines and their units and parts	CAE_U07	T2A_U01
SOCIAL COMPETENCES			
SC1	student is conscious of necessary of permanent	CAE_K01	T2A_K01

verification of possessed knowledge and skills in regard to permanent technological progress	CAE_K02	T2A_K02
--	---------	---------

2. TEACHING METHODS

multimedia lecture, classes, presentation, discussion, case study

3. METHODS OF EXAMINATION

written colloquium at the end of course

4. COURSE CONTENT

Specify the content separately for each type of classes in accordance with point I.B.	<p>LECTURES</p> <ul style="list-style-type: none"> - the basics of design theory, - the basics of failure processes of machines and structural parts, - typical calculation models of structural parts, - rules of selection and calculations of joints, - rules of selection and calculations of typical machine elements: axles and shafts, bearings, clutches and brakes, - rules of selection and calculations of gears, - design methods of mechanical drives. <p>CLASSES</p> <ul style="list-style-type: none"> - practical examples of selection and calculations of joints, - practical examples of selection and calculations of typical machine elements: axles and shafts, bearings, clutches and brakes, - practical examples of selection and calculations of gears.
---	---

5. VALIDATION OF LEARNING OUTCOMES

(Each learning outcome from the list requires validation methods to ensure that it was achieved by a student.)

Learning outcome	Form of assessment (for example:)					
	Oral examination	Written examination	Colloquium	Project	Report
K1			x			
K2			x			
S1			x			
SC1			x			

6. LITERATURE

Basic literature	Co tutaj wpisać ? Polskojęzyczne pozycje, czy może jakieś z baz ?
Supplementary literature	standards and on-line catalogues www pages of machines parts manufactures

6. TOTAL STUDENT WORKLOAD REQUIRED TO ACHIEVE EXPECTED LEARNING OUTCOMES EXPRESSED IN TIME AND ECTS CREDITS

Student's activity	Student workload– number of hours
Participation in classes indicated in point 2.2	45
Preparation for classes	15

Załącznik nr 3 do wytycznych dla rad podstawowych jednostek organizacyjnych do tworzenia nowych i weryfikacji istniejących programów studiów I i II stopnia w UTP w Bydgoszczy

Reading assignments	20
Other (preparation for exams, tests, carrying out a project etc)	20
Total student workload	100
Number of ECTS credits allocated by the lecturer	4
Final number of ECTS credits (determined by the Programme Council for the Field of Study)	4