

KEEL, UZ
DESCRIPTION OF THE PROMENG Curricula/Module

TITLE OF THE MODULE	Code
CAD/CAM/CAE for Electrical Engineers	

Teacher(s)	Department
Coordinating: Zair Uzakov, Associate Professor Others: Makhmadiev Boymamat, Associate Professor Alisher Mallaev, Associate Professor Primov Usmonkul, Senior Lecturer Ochilov Murodjon, assistant Professor	Teachers of the chair of “Automatics and Information Technologies“. For students of the faculty of energetics

Study cycle	Level of the module	Type of the module
V and VI semesters	6	

Form of delivery	Duration	Langage(s)
Lectures and practice	5+5=10 months	Uzbek and Russian

Prerequisites	
Prerequisites: Initial concepts on Informatics and Information Technologies	Co-requisites (if necessary): no, there is no need

Credits of the module	Total student workload	Contact hours	Individual work hours
5	250 hours	150 hours	100 hours

Aim of the module (course unit): competences foreseen by the study programme		
To give the students knowledges and practical skills on MCAD structural design, Pro Engineer, CAM technology, Finite Element Analysis, ECAD electronic design ALTIUM		
Learning outcomes of module (course unit)	Teaching/learning methods	Assessment methods
MCAD structural design, Pro Engineer	Lecture, handouts, examples, practical exercises, using presentation, working in small groups	Test, colloquium, written work, performance of practical exercises, personal activity, casestudy decision
CAM technology	Lecture, handouts, examples, practical exercises, using presentation, working in small groups	Test, colloquium, written work, performance of practical exercises, personal activity, casestudy decision
Finite Element Analysis	Lecture, handouts, examples, practical exercises, using presentation, working in small groups	Test, colloquium, written work, performance of practical exercises, personal activity, casestudy decision
ECAD electronic design ALTIUM	Lecture, handouts, examples, practical exercises, using presentation, working in small groups	Test, colloquium, written work, performance of practical exercises, personal activity, casestudy decision

Themes	Contact work hours							Time and tasks for individual work	
	Lectures	Consultations	Seminars	Practical work	Laboratory work	Placements	Total contact work	Individual work	Tasks
MCAD structural design, Pro Engineer	18	2		22	20		40	22	
CAM technology	2	2		6	4		8	6	
Finite Element Analysis	8	2		20	12		22	20	
ECAD electronic design ALTIUM	30	6		52	44		80	52	
Is viso	58	12		100	80		150	100	

Assessment strategy	Weight in %	Deadlines	Assessment criteria
Attendance and activity	30	During course	Students' competence in subject (theoretical and practical knowledge of subject's content, the ability to analyze and synthesize, practical skills)
Competence	40	During course	Students' competence in subject (theoretical and practical knowledge of subject's content, the ability to analyze and synthesize, practical skills)
Individual work	30	During course	Students' competence in subject (theoretical and practical knowledge of subject's content, the ability to analyze and synthesize, practical skills)

Author	Year of issue	Title	No of periodical or volume	Place of printing. Printing house or internet link
Compulsory literature				
Куньву Ли	2004	ОСНОВЫ САПР (CAD/CAM/CAE)		Питер
Additional literature				