



Study Plan

M.Sc. Robotics

Faculty of Power and Aeronautical Engineering

Study plan for reference only; may be subject to change.

L - lecture

E - end-of-semester exam

T - tutorial

La - laboratory

CA - continuous assessment, class works

P - project

Hours per week column: denotes total number of hours in semester.

For example:

2L2T means 2 lectures and 2 tutorials in every week

20*)L means 20 lecturing hours during whole semester

Semester 1

Modules	Plan: hrs per week	ECTS	Passing method
Obligatory courses			
Modeling and control of manipulators	2L 2T	6	CA+E
Real-time systems	2L 2La 1P	5	CA+E
Signal processing	2L 1T	5	CA+E
Computer vision	2L 1T	5	CA+E
Neural networks	2L 1T	5	CA+E
Elective courses can be selected from visiting courses, the 2nd semester of Power Engineering, or Aerospace Engineering programs			
Example suggestions			
Local/foreign language	2T	4	CA
ANS647 Attitude and navigation systems	1L1T1P	4	CA
ANK371 Business Law	2L1T	2	CA
ANS535 Future Power Technologies	2T	2	CA

Semester 2

Modules	Plan: hrs per week	ECTS	Passing method
Obligatory			
Mechanical design methods in robotics	2L 2P	5	CA+E
Robot programming methods	2L 2T	4	CA+E
Mobile robots	2L 2T	4	CA+E
Artificial intelligence	2L 1C	4	CA+E
Optimisation techniques	1L 1T	4	CA+E
Embedded systems	2L 1T	4	CA+E
Elective topic			
Group project	1L	5	CA

Semester 3

Modules	Plan: hrs per week	ECTS	Passing method
Obligatory			
Bio-robotics	2L 1P	5	CA+P
Dynamics of multi-body systems	2L 1T	5	CA+E
Biomechanics	2L 1T	5	CA+E
Advanced mechanical design	2L 1T	5	CA+E

Research methodology	10 ^{*)} L	6	P
<i>*) Total number of teaching hours per semester</i>			
Elective courses can be selected from visiting courses, the 2nd semester of Power Engineering, or Aerospace Engineering programs			
Example suggestions			
ANS511 Sensors and measurements systems	1L 1T	3	CA
ANS534 Advanced Renewable Energy Sources	2L 1T	3	E
ANK371 Business Law	2L 1T	2	CA
ANS535 Future Power Technologies	2T	2	CA
ANS647 Attitude and navigation systems	1L 1T 1P	4	Ca
Local language/foreign language	3T	4	Ca

Semester 4

This semester is mainly devoted to the work on the Master Thesis, valued at 30 ECTS credits. Each student will be supervised by elected advisor. The research work is finalised by a written dissertation of the Masters Thesis, which must be done individually and contain an element of original work. The dissertation must be defended in the presence of a committee of experts.