STUDY PROGRAM

AVIATION ENGINEERING

COURSE OUTLINE

Aviation Engineering is a young, interdisciplinary field of engineering. The word is derived from the words aviation and electronics and includes all electronic systems that are used in an aircraft. The area includes all technologies used for navigation, communication, security and early warning radar including weather radar, data recording and transfer.

Recent developments concern the automated management of these multi-systems. The value added part of electronic devices for the operation and increase safety in the air has developed in importance in recent years. There is an increasing demand for engineers, working within electrical engineering/electronic training and the fundamentals of aviation technology. The course is offered as an international program together with the University of Applied Sciences, Osnabrueck, Germany.

FIELDS OF ACTIVITIES

Graduates in the engineering sciences interdisciplinary areas / Avionics have excellent prospects of well-paid, interesting and varied work. Depending on personal disposition and inclination a wide variety of career paths are open in the research and development of aerospace, the development departments and testing departments of the aviation industry, the airlines maintenance companies, the medium sized equipment industry as well as in licensing and air traffic control authorities. Furthermore, many aspects of avionics are transferable to the automotive industry.

Photo: International University Liaison Indonesia

CURRICULUM 2017-2018

Date/ Rev   : 05 JANUARY 2017/ Rev. 07
Program   : Bachelor
Valid   : Batch 2017-2018

STUDY PROGRAM : AVIATION ENGINEERING

SUBJECT	1	2	3	4	5	6	7	8	Total
University Compulsory Subjects									
English	2	2	2	2	1	1			10
Computer Network & IT Security	2								2
E-Commerce						2			2
Environment Sciences			2						2
Innovation & Product Development						2			2
Applied Statistics		2							2
Research Methodology		2							2
Research Semester							6		6
Ethics and Religious Philosophy						2			2
Civics				2					2
Indonesian Language & Culture						2			2
Pancasila						2			2
Oral Final Study Examination (OFSE)						0			0
Elective : Internship / Project								3	3
Thesis / Thesis Defense								6	6
Total	**4**	**6**	**4**	**4**	**5**	**7**	**6**	**9**	**45**
Faculty Compulsory Subjects									
Applied Chemistry & Material Science	3								3
Engineering Mathematics 1, 2	3	3							6
Physics & Laboratory 1, 2	4	4							8
Algorithm, Programming 1, 2	3	3							6
Engineering Drawing	3								3
Manufacturing Process			2						2
Applied Mathematics			3						3
Engineering Economy					2				2
Engineering Management						2			2
Electrical Engineering & Laboratory 1, 2	3	3							6
Statics and Mechanics of Materials		4							4
Metrology and Quality Control			2						2
Total	**19**	**17**	**7**	**0**	**2**	**2**	**0**	**0**	**47**
Department Compulsory Subjects									
Introduction to Aviation Engineering	1								1
Introduction to Operation Research			3						3
Computer Aided Design - CAD			3						3
Machine Elements			3						3
Basic Aviation Eng. Practical Training			2						2
Thermo-Fluid Science			2	2					4
Kinematics & Dynamics of Machines				3					3
Flight Dynamics				2					2
Aircraft Propulsion				3					3
Aviation Airworthiness, Safety & Regulations				2					2
Aerodynamics				2	2				4
Pneumatics and Hydraulics						2			2
Aircraft Performance					2				2
Aircraft Systems and Components					2	2			4
Flight Control					2	2			4
Aviation Engineering System Design					3	3			6
Human Factors in Aviation						2			2
Elective Subjects				4	4	4			12
Total	**1**	**0**	**13**	**18**	**15**	**15**	**0**	**0**	**62**
Total 1, 2, 3	**24**	**23**	**24**	**22**	**22**	**24**	**6**	**9**	**154**
Extra Curricular									
German Language	2	2	2	2	2	2			12
Total	**2**	**2**	**2**	**2**	**2**	**2**	**0**	**0**	**12**

* subject to change
^ the actual implementation follows the internal arrangements & policy of the Department & Faculty