

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 2016-2019

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SUBJECT	1	2	3	4	5	6	7	8	Total
University Compulsory Subjects									
English	2	2	2	2	1	1			10
Fundamentals of Computer Technology	2								2
E-Commerce						2			2
Environmental Sciences			2						2
Innovation and Product Development					2				2
Statistics & Probability [^]				2					2
Research							6		6
Research Methodology						2			2
Ethics and Religious Philosophy [^]					2				2
Civics [^]				2					2
Pancasila [^]		2							2
Indonesian Language and Culture [^]						2			2
Oral Final Study Examination (OFSE) [^]							0		0
Elective : Internship / Project								3	3
Thesis								6	6
Total	4	4	4	6	5	7	6	9	45
Faculty Compulsory Subjects									
Applied Chemistry & Material Science	3								3
Calculus & Linear Algebra	3	3							6
Physics & Laboratory	4	4							8
Algorithms & Programming	3	3							6
Technical Drawing	3								3
Manufacturing Processes & System		2							2
Applied Mathematics			3						3
Elective in Engineering Science				2					2
Engineering Economy					2				2
Engineering Management						2			2
Total	16	12	3	2	2	2	0	-	37
Department Compulsory Subjects									
Introduction to Aviation Engineering	1								1
Industrial Electronics & Laboratory	3	3							6
Statics & Mechanics of Materials		4							4
Introduction to Operations Research			3						3
CAD (Computer Aided Design)			3						3
Machine Elements			3						3
Basic Aviation Engineering 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
Aircraft Performance					2				2
Aircraft Systems & Components					2	2			4
Flight Control					2	2			4
Aviation Engineering System Design					3	3			6
Human Factor in Aviation						2			2
Elective Subjects (*)				3	6	6			15
Total	4	7	15	15	17	15	0	0	73
Total 1, 2, 3	24	23	22	23	24	24	6	9	155
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

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