

B.Sc. Aerospace Engineering

Code	Course Name	Cat.	EC	Period
Propaedeutic (1st Year)				
AE1108-I	Aerospace Materials	BSc	3	2
AE1108-II	Aerospace Mechanics of Materials	BSc	3	3
AE1110-I	Intorduction to Aerospace Engineering I	BSc	5	1
AE1110-II	Intorduction to Aerospace Engineering II	BSc	4	2
AE1130-I	Engineering Mechanics: Statics	BSc	4	1
AE1130-II	Engineering Mechanics: Dynamics	BSc	3	2
AE1205	Programming & Scientific Computing in Python for AE1	BSc	2	4
AE1222-II	Aerospace Design & Systems Engineering Elements (PLEASE INFORM US IF YOU ARE TAKING THIS)	BSc	4	3-4
AE1111-II	Engineering Drawing	BSc	2	1-2
AE1240-I	Physics I	BSc	3	3
AE1240-II	Physics II	BSc	3	4
WI1403LR	Linear Algebra	BSc	5	4
WI1421LR	Calculus I	BSc	6	1-2
WI1402LR	Calculus II	BSc	5	3
Head Phase 2nd Year				
AE2111-II	Aerosp. Design & Syst. Eng. Elements II	BSc	3	1
AE2130-I	Aerodynamics I	BSc	3	1
AE2130-II	Low-Speed Windtunnel Test	BSc	1	3
AE2130-III	Aerodynamics II	BSc	3	2
AE2135-I	Structural Analysis and Design	BSc	5	2
AE2135-II	Vibrations	BSc	3	2
AE2220-I	Applied Numerical Analysis	BSc	3	3
AE2220-II	Computational Modeling	BSc	3	4
AE2223-II	Experimental Research and Data Analysis	BSc	3	3
AE2230-1	Flight and Orbital Mechanics	BSc	4	3
AE2230-11	Propulsion and Power	BSc	4	3
AE2235-1	Aerospace Systems and Control Theory	BSc	4	4
AE2235-11	Instrumentation and Signals	BSc	3	4
WI2180LR-1	Differential Equations	BSc	4	1
WI2180LR-11	Probability & Statistics	BSc	4	1
3rd Year Major				
AE3211-1	Systems Engineering & Aerospace Design	Bsc	3	3
AE3211-11	Production of Aerospace Systems	BSc	3	3
AE3212-1	Aerospace Flight Dynamics (Flight Test excluded)	Bsc	5	3
Minor Airport of the Future – Please contact us if you wish to take any of these				
AE3501-14	Air Transportation	BSc Minor	4	1
AE3502-14	Airport Planning, Design and Operations	BSc Minor	4	1
AE3503	Strategic Planning for Airport Systems	BSc Minor	6	2
CT3080LR	Landside Accessibility of Airport	BSc Minor	6	1

EE3340TU	Microwave Sensors and Radars for Airport Applications	BSc Minor	4	2
WB3310LR	Baggage Handling Systems Technology & Operations	BSc Minor	6	2

M.Sc. Aerospace Engineering - Electives

Code	Course Name	Cat.	EC	Period
MSc Courses				
AE4115	Experimental Simulations	MSc	3	3-4
AE4117	Fluid-Structure Interaction	MSc	4	3
AE4120	Viscous Flows	MSc	3	2
AE4130	Aircraft Aerodynamics	MSc	3	1-2
AE4133	CFD II	MSc	4	3-4
AE4134	CFD I	MSc	4	1-2
AE4135	Rotor/wake Aerodynamics	MSc	4	3-4
AE4140	Gas Dynamics	MSc	3	1
AE4143	Hypersonic Aerodynamics	MSc	3	1-2
AE4180	Flow Measurement Techniques	MSc	3	3-4
AE4202	CFD for Aerospace Engineers	MSc	3	3
AE4203	Gas Turbine Simulation/Application	MSc	3	3-4
AE4204	Knowledge Based Engineering	MSc	4	3
AE4205	MDO for Aerospace Applications	MSc	4	1
AE4206	Turbomachinery	MSc	3	2
AE4237-11	Heat Transfer problems in Gas Turbines	MSc	4	1-2
AE4238	Aero Engine Technology	MSc	4	1-2
AE4240	Advanced Aircraft Design I	MSc	4	1
AE4245	Advanced Aircraft Design II	MSc	4	3
AE4301	Automatic Flight Control System Design	MSc	3	1
AE4301P	Exercise Automatic Flight Control System Design	MSc	1	1
AE4302	Avionics and Operations	MSc	3	1
AE4304	Stochastic Aerospace Systems	MSc	3	2
AE4304P	Stochastic Aerospace Systems Practical	MSc	1	2
AE4313	Spacecraft Attitude Dynamics & Control	MSc	3	3
AE4313P	Spacecraft Attitude Dynamics & Control Exercise	MSc	1	3
AE4311	Advanced Flight Control	MSc	4	4
AE4314	Rotorcraft Mechanics and Design	MSc	3	4
AE4314P	Rotorcraft Mechanics and Design Practical	MSc	1	4
AE4315	Advanced Dynamics	MSc	3	4
AE4316	Aerospace Human-Machine Systems	MSc	4	2
AE4317	Autonomous Flight of Micro Air Vehicles	MSc	4	3
AE4318	Supervisory Control and Cognitive Systems	MSc	2	3
AE4319	Manual Control and Cybernetics	MSc	2	4
AE4320	System Identification of Aerospace Vehicles	MSc	4	3
AE4321-15	Air Traffic Management	MSc	4	2-3
AE4322	Piloted Flight Simulation	MSc	4	3
AE4323	Real-time Distributed Flight and Space Simulation	MSc	3	4

AE4422	Agent-based Modelling and Simulation in Air Transport	MSc	3	3
AE4423	Airline Planning & Optimization	MSc	4	2
AE4424	Network Scheduling	MSc	4	3
AE4441	Operations Optimisation	MSc	6	1-2
AE4445	Introduction to Aircraft Noise	MSc	4	3
AE4446	Airport Operations	MSc	4	3
AE4447	Aircraft Performance Optimization	MSc	3	2
AE4448	Agent-based Safety Risk Analysis	MSc	4	2-3
AE4454	Life Cycle Analysis and Production	MSc	6	3-4
AE4456	Safety of Transportation	MSc	3	1
AE4462	Aircraft Emissions and Climate Effects	MSc	6	2
AE4463	Advanced Aircraft Noise Modelling and Measurement	MSc	6	4
AE4465	Maintenance Modeling & Analysis	MSc	4	1
AE4467	Numerical Methods for Aircraft Performance Analysis	MSc	3	3
AE4468	Airline Maintenance Operations	MSc	3	3
AE4870A	Rocket Motion	MSc	3	1
AE4870B	Re-Entry Systems	MSc	3	1
AE4872	Satellite Data Processing	MSc	6	1-2
AE4874 I	Astrodynamics I	MSc	4	1
AE4874 II	Astrodynamics II	MSc	4	3
AE4878	Mission Geometry and Orbit Design	MSc	4	2-3
AE4880	Space Instrumentation	MSc	4	3
AE4890-11	Planetary Sciences I	MSc	4	2
AE4876-11	Planetary Sciences II	MSc	4	3
AE4ASM001	Design of lightweight structures I: Composites & Metals	MSc	3	1
AE4ASM002	Designing Materials with Aerospace Specific Properties	MSc	3	1
AE4ASM004	Manufacturing of Aerospace Structures & Materials	MSc	3	1
AE4ASM005	Fatigue of Structures and Materials	MSc	3	1
AE4ASM101TU	Polymer Science	MSc	5	2
AE4ASM102	Advanced Alloys	MSc	3	2
AE4ASM103	Functional Coatings	MSc	3	2
AE4ASM104	Sensor Materials	MSc	3	3
AE4ASM106	Stability & Analysis of Structures I	MSc	3	2
AE4ASM107	Joining Methods	MSc	3	2
AE4ASM108	Experimental Techniques & NDT	MSc	3	2
AE4ASM109	Design & Analysis of Composite Structures I	MSc	5	3
AE4ASM501	Design of Lightweight Structures II	MSc	3	3
AE4ASM503	Sheet Metal Forming	MSc	3	3
AE4ASM504	Structural Integrity and Maintenance	MSc	3	3
AE4ASM506	Aeroelasticity	MSc	3	3
AE4ASM507	Adaptive Aerospace Structures	MSc	3	3
AE4ASM508	Design of Self Healing Materials	MSc	3	3
AE4ASM509	Design and Manufacturing of Wind Turbine Rotor Blades	MSc	3	3
AE4ASM510	Design & Analysis of Composite Structures II	MSc	3	4
AE4ASM511	Stability & Analysis of Structures II	MSc	3	3
AE4ASM514TU	Continuum Mechanics	MSc	3	4

AE4ASM515	Materials Characterization	MSc	3	4
AE4ASM516	Materials Selection in Mechanical Design	MSc	3	3
AE4S01	Thermal Rocket Propulsion	MSc	4	1-2
AE4S01P	Exercise Thermal Rocket Propulsion	MSc	2	2
AE4S06	Spacecraft Mechatronics	MSc	4	1
AE4S06P	Spacecraft Mechatronics Exercise	MSc	1	2
AE4S10	Microsat Engineering	MSc	4	3-4
AE4S12	Space Systems Engineering	MSc	3	1-2
AE4S12E	Exercise Space Systems Engineering	MSc	2	3
AE4S20	Satellite Thermal Control	MSc	3	1
AE4T40	Kite Power and Propulsion	MSc	3	1
AE4W09	Wind Turbine Design	MSc	5	3-4
AE4W11	Exercise Wind Turbine Design	MSc	1	3
AE4W13	Site Conditions for Wind Turbine Design	MSc	3	3-4
AE4W21-14	Wind Turbine Aeroelasticity	MSc	2	4
WI2056LR	Systems Theory	MSc	4	1
WM0324LR	Ethics and Engineering for Aerospace Engineering	MSc	3	2

<i>Starting period</i>	<i>from/to</i>
1 - semester I	August 31, 2015 - November 6, 2015
2 - semester I	November 9, 2015 - January 29, 2016
3 - semester II	February 1, 2016 - April 17, 2016
4 - semester II	April 20, 2016 - July 3, 2016

For the latest version of this list visit: <http://www.studiegids.tudelft.nl/>

Please note that the following courses (projects) are not available for Exchange Students:

AE1111-I	Exploring Aerospace Engineering
AE1222-I	Design and Construction
AE2111-I	Systems Design
AE2223-I	Test, Analysis & Simulation
AE3212-II	Simulation, Verification & Validation
AE3200	Design Synthesis

AE4ASM003	Linear Modelling
AE4ASM105	Trinity Exercise
AE4ASM512	Aerospace Structures and Materials Industry Best Practice
AE4ASM513	Forensic Engineering
AE4ASM517	Aircraft Manufacturing Laboratory
AE4010	Research Methodologies
AE4020	Literature Study
AE5050	Internship

AE5110	Thesis Aerodynamics & Wind Energy
AE5310	Thesis Control & Operations
AE5810	Thesis Space
AE5711	Thesis Aerospace Structures & Materials
AE5211	Thesis Flight Performance & Propulsion
AE5912	Thesis Wind Energy Rotor Design