TU MÜNCHEN

Especialidad	Curso	Codigo	Asignatura	ECTS
VA	3	145005107	Aleaciones Aeroespaciales	3
VA	3	145005106	Diseño Grafico	3
VA	3	145005105	Diseño Mecanico	4,5
VA	3	145005102	Estructuras Aeronauticas	4,5
VA	3	145005001	Fabricacion Aeroespacial	3
VA	3	145005104	Mecanica de Fluidos II	6
VA	3	145005101	Mecanica de Solidos	3
VA	3	145005103	Vibraciones	3
VA	3	145006103	Aerorreactores	4
VA	3	145006101	Aerodinamica y Aeroelasticidad	9
VA	3	145006104	Motores Alternativos Aeronauticos	2
VA	3	145006105	Motores Cohete	3
VA	3	145006106	Materiales Compuestos	3
VA	3	145006102	Mecanica del Vuelo	6
VA	3	145006107	Sistemas de Produccion Aeroespacial	3
VA	4	145007102	Aeronaves de Ala Fija	6
VA	4	145007103	Aeronaves de Ala Rotatoria	3
VA	4	145007001	Gestión de Empresas y Proyectos	4,5
VA	4	145007107	Mantenimiento y Certificacion de Vehiculos Aeroespaciales	6
VA	4	145007106	Metodo de Elementos Finitos y Dinamica de Fluidos Computacional	4,5
VA	4	145007104	Misiles	3
VA	4	145007105	Vehiculos Espaciales	3

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
	W/S	LRG0040	Aerospace Materials Science and Processing		7	EN
→	Summer	MW0047	Aircraft Design	Aerospace Master of Science	5	DE
→	Summer	MW2432	Geared Transmission - Design and Shifting Elements	Aerospace Master of Science	5	DE
→	W/S	MW0063	Aerospace Structures	Aerospace Master of Science	5	DE
	Summer	MW9006	Principles of Engineering Design and Production Systems		3	DE
→	W/S	MW1913	Fundamentals of Numerical Fluid Mechanics	Aerospace Master of Science	5	DE
	Winter	MW0850	Non-linear Continuum Mechanics		5	DE
	Winter	BV010016	Material Mechanics		3	EN
	Winter	BV600010	Introduction to Random Vibration		3	EN
→	Winter	MW0510	Flight Propulsion 1 and Gas Turbines	Aerospace Master of Science	5	EN
→	W/S	MW0007	Aerodynamics of Aircraft 1	Aerospace Master of Science	5	DE
	W/S	MW2228	Aeroelasticity	Aerospace Master of Science	5	EN
→	Summer	MW0138	Thermodynamics of Internal Combustion Engines	Aerospace Master of Science	5	DE
→	W/S	MW2120	Spacecraft Propulsion 1	Aerospace Master of Science	5	DE/EN
→	Winter	MW1394	Composite Materials and Structure-Property Relationship	Aerospace Master of Science	5	DE
→	Summer	MW0833	Flight Dynamics, Stability and Control	Aerospace Master of Science	5	EN
→	Summer	MW0040	Production Engineering	Aerospace Master of Science	5	DE
→	Summer	MW2422	High Performance Aircraft	Aerospace Master of Science	3	DE
→	Winter	MW1402	Helicopter Dynamics and Flight Control	Aerospace Master of Science	3	DE
→	Winter	MW2290	Fundamentals of Helicopter Aerodynamics	Maschinenwesen	3	EN
	W/S	EI04004	Strategic Management for Engineers	Elektrotechnik und Informationstechn	3	EN
→	W/S	BGU40055	Business Administration and Management for Engineers	Master in Business Administration	5	DE
→	Winter	MW2282	Safety and Certification of Avionics and Flight Control Systems	Aerospace Master of Science	5	DE/EN
	Summer	MW2407	Safety and Certification of Aircraft	Maschinenwesen	5	EN
→	Summer	MW1628	Applied CFD	Maschinenwesen	5	EN
→	Winter	ED140001	Introduction to CFD	Engineering and Design	3	EN
	Summer	MW1268	Finite Element Method (FEM) in Aerospace Structures		4	EN
	Summer	MW2412	Spacecraft Technology 1 (ESPACE)	Aerospace Master of Science	5	EN
→	Winter	MW2377	Spacecraft Technology 2	Aerospace Master of Science	4	EN
	Winter	MW2132	Spacecraft Design	Aerospace Master of Science	5	EN

Especialidad	Curso	Codigo	Asignatura	ECTS
PA	3	145005208	Aleaciones Aeroespaciales	3
PA	3	145005207	Diseño Grafico	3
PA	3	145005202	Estructuras Aeronauticas	4,5
PA	3	145005204	Mecanica de Fluidos II	6
PA	3	145005201	Mecanica de Solidos	3
PA	3	145005205	Termodinamica Aplicada	3,75
PA	3	145005206	Transporte de Calor y Masa	3,75
PA	3	145005203	Vibraciones	3
PA	3	145006201	Aerodinamica, Aeroelasticidad y Mecanica del Vuelo	9
PA	3	145006203	Aerorreactores	6
PA	3	145006001	Fabricacion Aeroespacial	3
PA	3	145006202	Motores Alternativos Aeronauticos	4,5
VA	4	145007106	Metodo de Elementos Finitos y Dinamica de Fluidos Computacional	4,5
PA	3	145006205	Materiales Estructurales para Sistemas Propulsivos	3
PA	4	145007204	Combustibles y Lubricantes	2
PA	4	145007202	Diseño Mecanico	4,5
PA	4	145007001	Gestion de Empresas y Proyectos	4,5
PA	4	145007201	Motores Cohete	4,5
PA	4	145007205	Mantenimiento y Certificacion de Motores	7,5
PA	4	145007203	Sistemas de Motor	4
PA	4	145007206	Sistemas de Produccion Aeroespacial	3

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
	W/S	LRG0040	Aerospace Materials Science and Processing		7	EN
→	Summer	MW0047	Aircraft Design	Aerospace Master of Science	5	DE
→	W/S	MW0063	Aerospace Structures	Aerospace Master of Science	5	DE
→	W/S	MW1913	Fundamentals of Numerical Fluid Mechanics	Aerospace Master of Science	5	DE
	Winter	MW0850	Non-linear Continuum Mechanics		5	DE
	Winter	BV010016	Material Mechanics		3	EN
	Winter	WZ5438	Thermodynamics		6	DE
	Winter	WZ1936	Mixture Thermodynamics and Mass Transfer		5	DE/EN
	Winter	BV600010	Introduction to Random Vibration		3	EN
	W/S	MW0007	Aerodynamics of Aircraft 1	Aerospace Master of Science	5	DE
→	W/S	MW2228	Aeroelasticity	Aerospace Master of Science	5	EN
	Summer	MW0833	Flight Dynamics, Stability and Control	Aerospace Master of Science	5	EN
→	Winter	MW0510	Flight Propulsion 1 and Gas Turbines	Aerospace Master of Science	5	EN
	Summer	MW9006	Principles of Engineering Design and Production Systems		3	DE
→	Summer	MW0138	Thermodynamics of Internal Combustion Engines	Aerospace Master of Science	5	DE
→	Summer	MW1628	Applied CFD	Maschinenwesen	5	EN
→	Winter	ED140001	Introduction to CFD	Engineering and Design	3	EN
	Summer	MW1268	Finite Element Method (FEM) in Aerospace Structures		4	EN
	Summer	MW0253	Materials for Engines and Propulsion Systems 1		3	DE/EN
→	Winter	CS0003	Production of Alternative Fuels	Maschinenwesen	5	EN
→	Summer	MW2432	Geared Transmission - Design and Shifting Elements	Aerospace Master of Science	5	DE
→	W/S	BGU40055	Business Administration and Management for Engineers	Master in Business Administration	5	DE
	Winter	WI000984	Entrepreneurship		3	EN
→	W/S	MW2120	Spacecraft Propulsion 1	Aerospace Master of Science	5	DE/EN
→	Summer	MW2407	Safety and Certification of Aircraft	Aerospace Master of Science	5	EN
→	Summer	MW2314	Aircraft Systems	Aerospace Master of Science	3	EN
	Winter	MW1182	Injection Systems for Internal Combustion Engines	Maschinenwesen	3	DE
→	Summer	MW0040	Production Engineering	Aerospace Master of Science	5	DE

Especialidad	Curso	Codigo	Asignatura	ECTS
NSA	3	145005307	Aeropuertos	6
NSA	3	145005305	Comunicaciones y Redes	4,5
NSA	3	145005302	Instalaciones Electricas	4,5
NSA	3	145005306	Introduccion a la Navegacion Aerea	3
NSA	3	145005301	Meteorologia	3
NSA	3	145005304	Sistemas de Radiofrecuencia	4,5
NSA	3	145005303	Tratamiento Digital de la Informacion	4,5
NSA	3	145006301	Aerodinamica y Mecanica del Vuelo	6
NSA	3	145006001	Fabricacion Aeroespacial	3
NSA	3	145006302	Geodesia y Cartografia	4,5
NSA	3	145006304	Posicionamiento, Guiado y Control	4,5
NSA	3	145006303	Sistemas de Control Automatico	3
NSA	3	145006306	Sistemas de Comunicaciones y Vigilancia	4,5
NSA	3	145006305	Sistemas de Navegacion Aerea	4,5
NSA	4	145007303	Avionica	4,5
NSA	4	145007001	Gestion de Empresas y Proyectos	4,5
NSA	4	145007304	Gestion del Transito Aereo	6
NSA	4	145007306	Ingenieria de Operación y Gestion de Aeropuertos	3
NSA	4	145007305	Ingenieria de Sistemas Aeroespaciales	3
NSA	4	145008301	Ingenieria del Transporte Aereo	6
NSA	4	145007307	Propulsion de Aeronaves	3

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
	Summer	MW0889	Planing and Operation of Airports		3	DE
	Winter	EI0625	Communication Networks		5	DE
	Summer	EI00410	Electrical Power Engineering		5	DE
→	Winter	BGU61029	Introduction to Satellite Navigation and Orbit Mechanics	Aerospace Master of Science	5	EN
	Winter	WZ0008	Meteorology, Climatology and Climate change		5	DE
	Winter	EI0609	Introduction to High-Frequency Engineering		5	DE
	W/S	ED160029	Basics of Digitalization and Information Processing in Mechanical Engineering (IT 1, 2)		8	DE
	Winter	EI00120	Digital Design		5	DE
→	W/S	MW0007	Aerodynamics of Aircraft 1	Aerospace Master of Science	5	DE
	Summer	MW0833	Flight Dynamics, Stability and Control	Aerospace Master of Science	5	EN
	Summer	MW9006	Principles of Engineering Design and Production Systems		3	DE
	Winter	BV300018	Introduction to Cartography		3	DE
	Summer	IN2068	Sensor-based Robotic Manipulation and Locomotion		3	EN
	Winter	MW2383	Design and Analysis of Digital Control Systems		5	EN
	-	MW1325	Autonomous Systems Control		5	-
	Winter	EI0625	Communication Networks		5	DE
	Summer	ED110007	Positioning and Navigation		5	EN
→	W/S	BGU40055	Business Administration and Management for Engineers	Master in Business Administration	5	DE
	Winter	BV340021	Air Transport and Airports		3	EN
	Summer	MW0889	Planing and Operation of Airports		3	DE
	Winter	BV610001	Orbit Mechanics		4	EN
	Summer	MW109AE	Aircraft Design		5	EN
→	Winter	MW0510	Flight Propulsion 1 and Gas Turbines	Aerospace Master of Science	5	EN

Especialidad	Curso	Codigo	Asignatura	ECTS
ATA	3	145005408	Aerodromos	6
ATA	3	145005404	Estructuras	3
ATA	3	145005406	Geotecnia	3
ATA	3	145005403	Geodesia y Topografia	4,5
ATA	3	145005402	Instalaciones Electricas	4,5
ATA	3	145005407	Introduccion a la Navegacion Aerea	3
ATA	3	145005405	Materiales de Construccion	3
ATA	3	145005401	Meteorologia	3
ATA	3	145006401	Aerodinamica y Mecanica del Vuelo	6
ATA	3	145006405	Construccion	6
ATA	3	145006402	Edificios e Instalaciones, Urbanizacion y Accesos	6
ATA	3	145006403	Estructuras de Acero	4,5
ATA	3	145006404	Estructuras de Hormigon	4,5
ATA	3	145006001	Fabricacion Aeroespacial	3
ATA	4	145007406	Control y Gestion del Transito Aereo	3
ATA	4	145007001	Gestion de Empresas y Proyectos	4,5
ATA	4	145007403	Instalaciones de Aeropuertos	4,5
ATA	4	145008401	Ingenieria del Transporte Aereo	6
ATA	4	145007404	Legislacion y Gestion Aeroportuarias	3
ATA	4	145007405	Operación y Mantenimiento Aeroportuarios	6
ATA	4	145007407	Propulsion de Aeronaves	3

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
	Summer	MW0889	Planing and Operation of Airports		3	DE
→	W/S	MW0063	Aerospace Structures	Aerospace Master of Science	5	DE
	W/S	BGU50010	Advanced Geotechnics		12	DE
	Winter	BV300018	Introduction to Cartography		3	DE
	Summer	EI00410	Electrical Power Engineering		5	DE
→	Winter	BGU61029	Introduction to Satellite Navigation and Orbit Mechanics	Aerospace Master of Science	5	EN
	Winter	NAT0183	Inorganic Structural Materials		5	DE
	Winter	WZ0008	Meteorology, Climatology and Climate change		5	DE
→	W/S	MW0007	Aerodynamics of Aircraft 1	Aerospace Master of Science	5	DE
	Summer	MW0833	Flight Dynamics, Stability and Control	Aerospace Master of Science	5	EN
	Summer	BV000010	Building Construction I		3	DE
	Summer	ED110138	Airport Design and Operations		3	EN
	Winter	BGU42017	Introduction to Steel Construction		5	DE
	Winter	BV090060	Design and Construction of Concrete Structures		4	DE
	Summer	MW9006	Principles of Engineering Design and Production Systems		3	DE
	Winter	BV340021	Air Transport and Airports		3	EN
→	W/S	BGU40055	Business Administration and Management for Engineers	Master in Business Administration	5	DE
	Summer	MW0889	Planing and Operation of Airports		3	DE
	Summer	MW109AE	Aircraft Design		5	EN
	Summer	MW116AE	Safety and Certification of Aircraft		5	EN
	Summer	MW0889	Planing and Operation of Airports		3	DE
→	Winter	MW0510	Flight Propulsion 1 and Gas Turbines	Aerospace Master of Science	5	EN

Especialidad	Curso	Codigo	Asignatura	ECTS
CTA	3	145005507	Aleaciones Aeroespaciales	3
CTA	3	145005501	Ampliacion de Matematicas	6
CTA	3	145005504	Diseño Grafico	3
CTA	3	145005506	Estructuras	6
CTA	3	145005503	Mecanica Analitica	3
CTA	3	145005502	Mecanica de Fluidos II	6
CTA	3	145005505	Mecanica de Solidos	3
CTA	3	145006501	Aerodinamica	6
CTA	3	145006506	Aleaciones Aeroespaciales II	3
CTA	3	145006502	Calculo Numerico	3
CTA	3	145006504	Control y Optimizacion	6
CTA	3	145006001	Fabricacion Aeroespacial	3
CTA	3	145006505	Mecanica Orbital	3
CTA	3	145006507	Materiales Compuestos	3
CTA	3	145006503	Vibraciones	3
CTA	4	145007506	Aeroelasticidad	3
CTA	4	145007503	Aerorreactores	6
CTA	4	145007512	Dinamica de Fluidos Computacional	3
CTA	4	145007001	Gestion de Empresas y Proyectos	4,5
CTA	4	145007504	Motores Alternativos Aeronauticos	3
CTA	4	145007505	Motores Cohete	4,5
CTA	4	145007511	Metodos de Elementos Finitos	3
CTA	4	145007502	Mecanica del Vuelo	6
CTA	4	145008502	Vehiculos Aeroespaciales	6

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
	W/S	LRG0040	Aerospace Materials Science and Processing		7	EN
	Summer	MA9603	Calculus 3		5	DE
→	Summer	MW0047	Aircraft Design	Aerospace Master of Science	5	DE
→	W/S	MW0063	Aerospace Structures	Aerospace Master of Science	5	DE
→	W/S	MW1913	Fundamentals of Numerical Fluid Mechanics	Aerospace Master of Science	5	DE
	Winter	BV010016	Material Mechanics		3	EN
	Winter	MW0850	Non-linear Continuum Mechanics		5	DE
→	W/S	MW0007	Aerodynamics of Aircraft 1	Aerospace Master of Science	5	DE
	W/S	LRG0040	Aerospace Materials Science and Processing		7	EN
	Winter	MA9523	Mathematics 3		5	DE
	W/S	WI000819	Applied Discrete Optimization		6	EN
	Summer	MW9006	Principles of Engineering Design and Production Systems		3	DE
	Winter	BV610001	Orbit Mechanics		4	EN
→	Winter	MW1394	Composite Materials and Structure-Property Relationship	Aerospace Master of Science	5	DE
	Winter	BV600010	Introduction to Random Vibration		3	EN
→	W/S	MW2228	Aeroelasticity	Aerospace Master of Science	5	EN
→	Winter	MW1915	Fundamentals of Turbomachinery and Flight Propulsion	Aerospace Master of Science	5	DE
→	Winter	MW0510	Flight Propulsion 1 and Gas Turbines	Aerospace Master of Science	5	EN
→	Summer	MW1628	Applied CFD	Aerospace Master of Science	5	EN
→	Winter	ED140001	Introduction to CFD	Engineering and Design	3	EN
→	W/S	EI04004	Strategic Management for Engineers	Elektrotechnik und Informationstechn	3	EN
→	Winter	WI000984	Entrepreneurship		3	EN
→	Summer	MW1364	Internal Combustion Engines	Aerospace Master of Science	5	EN
→	Winter	MW1916	Combustion Engines		5	DE
→	W/S	MW2120	Spacecraft Propulsion 1	Aerospace Master of Science	5	DE/EN
→	W/S	MW1268	FEM in Aerospace Structures	Aerospace Master of Science	4	DE
→	Winter	MW0612	Finite Elemente	Maschinenwesen	5	DE
	Summer	MW0833	Flight Dynamics, Stability and Control	Maschinenwesen	5	EN
→	Winter	MW1907	Introduction to Flight Mechanics and Control	Aerospace Master of Science	5	EN
→	Summer	MW2422	High Performance Aircraft	Aerospace Master of Science	3	DE
→	Winter	MW1402	Helicopter Dynamics and Flight Control	Aerospace Master of Science	3	DE
→	Summer	MW2412	Spacecraft Technology 1 (ESPACE)	Aerospace Master of Science	5	EN
→	Winter	MW2377	Spacecraft Technology 2	Aerospace Master of Science	4	EN
→	Winter	MW0047	Aircraft Design	Aerospace Master of Science	5	EN
→	Winter	MW1397	Rotorcraft Engineering - Preliminary Design	Aerospace Master of Science	5	EN
→	Winter	MW2132	Spacecraft Design	Aerospace Master of Science	5	EN
→	Summer	MW2406	Rotorcraft Engineering - Systems & Components	Maschinenwesen	5	EN

Intensificacion	Curso	Codigo	Asignatura	ECTS
Aeronaves	2	143003011	Aerodinamica Aplicada y no Estacionaria	6
Aeronaves	2	143003012	GNC y Optimizacion de Trayectorias de Misiles	4,5
Aeronaves	2	143003013	Helicopteros	6
Aeronaves	2	143003014	Sistemas Aereos no Tripulados	4,5
Aeronaves	2	143003015	Sistemas de Control de Vuelo	4,5
Aeronaves	2	143003016	Sistemas Eolicos Terrestres y Oceanicos	4,5

	Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
→	Winter	LRG0110	Computational Aerodynamics		5	EN
→	Winter	MW2237	Flight Guidance 1		5	EN
→	Winter	MW2252	Helicopter Flight Dynamics		5	DE
→	Winter	MW2290	Fundamentals of Helicopter Aerodynamics	Maschinenwesen	3	EN
→	Winter	MW0836	Navigation and Datafusion		3	DE
→	Winter	LRG1000	Components of Flight Control Systems		3	EN
→	W/S	MW0276	Flight Test Techniques		4	DE
→	Winter	MW2152	Modeling, Control and Design of Wind Energy Systems		5	EN
	Winter	MW2149	Introduction to Wind Energy		5	EN

ENLACE 1 https://campus.tum.de/tumonline/wbSuche.mhbSuche
ENLACE 2 https://campus.tum.de/tumonline/wbModHB.wbShow?pOrgNr=1

OPTATIVAS

Semestre	Codigo	Asignatura	Titulacion	ECTS	Idioma
Winter	MW2128	Human Factors in Aviation		5	EN
Winter	ED110052	Advances in Electric Aircraft		5	EN

Intensificacion	Curso	Codigo	Asignatura	ECTS	
Vehiculos	2	143003021	Aerodinamica Hipersonica	4,5	→
Vehiculos	2	143003022	Astrodinamica y Dinamica de Actitud	6	→
Vehiculos	2	143003023	Control Termico Espacial	4,5	→
Vehiculos	2	143003024	El Entorno Espacial	4,5	→
Vehiculos	2	143003025	Ingenieria de Sistemas y Diseño Preliminar de Vehiculos Espaciales	6	→
Vehiculos	2	143003026	Segmentos de Tierra y Lanzamiento	4,5	→