

# Studienplan Electrical and Computer Engineering: Profil *Artificial Intelligence*

Module in schwarzer Schrift: Für das Profil förderliche Module

Module in grauer Schrift: Allgemeine Module

1. Semester	2. Semester	3. Semester	4. Semester	5. Semester	6. Semester
Elektropraktikum 1 <span style="background-color: yellow;">2</span>	Elektropraktikum 2 <span style="background-color: yellow;">2</span>	Elektronik 1 <span style="background-color: yellow;">3</span>	Elektronik 2 <span style="background-color: yellow;">3</span>	Sensorik 1 <span style="background-color: blue;">4</span>	Sensorik 2 <span style="background-color: blue;">4</span>
			Python <span style="background-color: yellow;">3</span>	Digital Microelectronics <span style="background-color: blue;">4</span>	Analog Microelectronics <span style="background-color: blue;">4</span>
Digitaltechnik <span style="background-color: yellow;">3</span>	Computer Engineering 1 <span style="background-color: yellow;">3</span>	Computer Engineering 2 <span style="background-color: yellow;">3</span>	Digital Design <span style="background-color: yellow;">3</span>	Embedded Systems 1 <span style="background-color: blue;">4</span>	Embedded Systems 2 <span style="background-color: blue;">4</span>
Programmieren in C <span style="background-color: yellow;">4</span>	Programmieren in C++ <span style="background-color: yellow;">4</span>	Projektmanagement & Software Engineering <span style="background-color: yellow;">3</span>	OO-Analyse und Design <span style="background-color: yellow;">3</span>	Embedded Software Engineering 1 <span style="background-color: blue;">4</span>	Embedded Software Engineering 2 <span style="background-color: blue;">4</span>
			Parallele Programmierung <span style="background-color: grey;">4</span>	Image Processing and Computer Vision 1 <span style="background-color: blue;">4</span>	Image Processing and Computer Vision 2 <span style="background-color: blue;">4</span>
		Signale & Systeme 1 <span style="background-color: yellow;">3</span>	Signale & Systeme 2 <span style="background-color: yellow;">3</span>	Digital Signal Processing 1 <span style="background-color: blue;">4</span>	Digital Signal Processing 2 <span style="background-color: blue;">4</span>
		Datenbanksysteme 1 <span style="background-color: grey;">4</span>	Data Analytics <span style="background-color: grey;">4</span>	Statistical Machine Learning <span style="background-color: blue;">4</span>	Deep Learning <span style="background-color: blue;">4</span>
		Regelungstechnik 1 <span style="background-color: yellow;">3</span>	Regelungstechnik 2 <span style="background-color: yellow;">3</span>	Regelungstechnik 3 <span style="background-color: blue;">4</span>	Regelungstechnik 4 <span style="background-color: blue;">4</span>
		Nachrichtentechnik 1 <span style="background-color: yellow;">3</span>	Nachrichtentechnik 2 <span style="background-color: yellow;">3</span>	Wireless Communications 1 <span style="background-color: blue;">4</span>	Wireless Communications 2 <span style="background-color: blue;">4</span>
		Wechsel- & Drehstromtechnik <span style="background-color: yellow;">3</span>	Elektrische Maschinen <span style="background-color: yellow;">3</span>	Leistungselektronik <span style="background-color: blue;">4</span>	Energiesysteme <span style="background-color: blue;">4</span>
Elektrotechnik 1 <span style="background-color: yellow;">3</span>	Elektrotechnik 2 <span style="background-color: yellow;">3</span>	Elektrotechnik 3 <span style="background-color: yellow;">3</span>	Elektrotechnik 4 <span style="background-color: yellow;">3</span>	Ang. Elektromagnetismus: Felder und Wellen <span style="background-color: blue;">4</span>	
				<b>Studienarbeit Elektrotechnik</b> <span style="background-color: blue;">8</span>	<b>Bachelorarbeit Elektrotechnik</b> <span style="background-color: blue;">12</span>
Analysis 1a für E <span style="background-color: purple;">4</span>	Analysis 2a für E <span style="background-color: purple;">4</span>	Wahrscheinlichkeitsrechnung & Statistik <span style="background-color: purple;">4</span>	Funktionen mehrerer Variablen <span style="background-color: purple;">4</span>		
Analysis 1b für E <span style="background-color: purple;">4</span>	Analysis 2b für E <span style="background-color: purple;">4</span>	Integraltransformationen <span style="background-color: purple;">2</span>			
Lineare Algebra <span style="background-color: purple;">4</span>	Komplexe Zahlen & Fourierreihen <span style="background-color: purple;">4</span>				
Physik 1 <span style="background-color: green;">4</span> Mechanik	Physik 2 <span style="background-color: green;">4</span> Hydro- & Aeromechanik, Thermodynamik	Physik 3 <span style="background-color: green;">4</span> Schwingungen, Wellen, Optik	Physikpraktikum <span style="background-color: green;">2</span>		
			Elektrochemie <span style="background-color: green;">2</span>		
			Halbleiterphysik <span style="background-color: green;">2</span>		
				Business & Recht 1 <span style="background-color: orange;">4</span> Recht für Ingenieure Business Plan	Business & Recht 2 <span style="background-color: orange;">4</span> Info-, Technologie- & Lizenzvertragsrecht Managementsimulation
					VWL & Technikgeschichte <span style="background-color: orange;">4</span> VWL, Wirtsch.politik, Technikgeschichte Technikfolgenabschätzung
English <span style="background-color: pink;">4</span> How things work oder	English <span style="background-color: pink;">4</span> Selling Technology oder		Kommunikation 2 für Ing. <span style="background-color: pink;">4</span> Teamkommunikation für Ingenieure	Rhetorische Kommunikation für Ingenieure <span style="background-color: pink;">4</span>	
English <span style="background-color: pink;">4</span> The World of Science	English <span style="background-color: pink;">4</span> Where tech meets BEC				

Technik: Elektrotechnik Grundlagen, Aufbau, Mathematik, Naturwissenschaften (mind. 148 ECTS)  
 Elektrotechnik Grundlagen (mind. 64 ECTS)  
 Elektrotechnik Aufbau (mind. 32 ECTS)  
 Mathematik (mind. 30 ECTS)  
 Naturwissenschaften (mind. 14 ECTS)  
 Gesellschaft, Wirtschaft, Recht  
 Komm., Sprache