

1 st semester spring 28 credits 23 h/week	Advanced mathematics 2/1/0/m/3	Common subject 3/0/0/m/4	Main specialization subject 2/1/0/e/4 3x	Secondary specialization subject 2/1/0/e/4	Project laboratory 1 0/0/5/m/5 BMEVI**ML02	Common subjects Communication theory 3/0/0/m/4 BMEVIHVMA07 Measurement theory 3/0/0/m/4 BMEVIMIMA17 Alternating current systems 3/0/0/m/4 BMVIVEMA13				
	Advanced mathematics 2/1/0/m/3	Natural Science 4/0/0/m/4 BMEVIETMA06 or BMEVIVEMA14 or BMEVIHVMA08	Main specialization subject 2/1/0/e/4 2x	Secondary specialization subject 2/1/0/e/4 2x	Project laboratory 2 0/0/5/m/5 BMEVI**ML03		Project lab. and MSc thesis topics must be related to the main or secondary specialization. One subject in the common subjects block and two subjects from the advanced mathematics block are determined by the main specialization. Subjects from remaining specialization blocks can be selected as free electives.			
	Physics 3 3/1/0/e/4 BMETE11MX33	Common subject 3/0/0/m/4	Main specialization laboratory 2 0/0/3/m/4	Secondary specialization lab. 0/0/3/m/4	MSc Diploma Thesis Design 1 0/5/0/m/10 BMEVI**MT02			Engineering management 4/0/0/e/4 BMEVITMMB03	Mandatory human & economic science elective 2/0/0/m/2 BMEGT*****	Physics 3 subject can be substituted by Electromagnetic Fields (BMEVIHVMA08) available in the spring semester.
	Free elective 2/0/0/m/2 3x	Mandatory human & economic science elective 2/0/0/m/2 2x BMEGT*****	MSc Diploma Thesis Design 2 0/10/0/m/20 BMEVI**MT01	DISCLAIMER: this roadmap is for information purposes only, without contractual value. Content is subject to change without notice. MINIMAL NUMBER OF APPLICANTS REQUIRED				Advanced mathematics Linear algebra 2/1/0/m/3 BMETE90MX54	Stochastics 2/1/0/m/3	
Main specialization	<p>ELECTRIC POWER SYSTEMS</p> <p>Power system operation and control 2/1/0/e/4 BMEVIVEMA01</p> <p>Electrical systems of sustainable energetic 2/1/0/e/4 BMEVIVEMA02</p> <p>Power system transients 2/1/0/e/4 BMEVIVEMA03</p> <p>Protection systems and measurement tech. 2/1/0/e/4 BMEVIVEMA04</p> <p>Electric energy market 2/1/0/e/4 BMEVIVEMA05</p> <p>Electric Power Systems laboratory 1 0/0/3/m/4 BMEVIVEMA06</p> <p>Electric Power Systems laboratory 2 0/0/3/m/4 BMEVIVEMB00</p>									
	<p>MULTIMEDIA SYSTEMS AND SERVICES</p> <p>Mobile and wireless networks 2/1/0/e/4 BMEVIHIMA07</p> <p>Broadband wireless t-comm. & broadcasting systems 2/1/0/e/4 BMEVIHVMA01</p> <p>Foundations of multimedia technologies 2/1/0/e/4 BMEVIHIMA08</p> <p>Networked multimedia systems & services 2/1/0/e/4 BMEVIHIMA09</p> <p>Media informatics systems 2/1/0/e/4 BMEVITMMA08</p> <p>Lab. on multimedia systems & services 1 0/0/3/m/4 BMEVIHIMA10</p> <p>Lab. on multimedia systems & services 2 0/0/3/m/4 BMEVIHIMB02</p>									
	<p>EMBEDDED SYSTEMS</p> <p>Artificial Intelligence Based Control 2/1/0/e/4 BMEVIHMA09</p> <p>SW technology for embedded systems 2/1/0/e/4 BMEVIMIMA09</p> <p>Computer vision systems 2/1/0/e/4 BMEVIHMA07</p> <p>Development of SW applications 2/1/0/e/4 BMEVIAUMA09</p> <p>Design & integration of embedded systems 2/1/0/e/4 BMEVIMIMA11</p> <p>Control Engineering and Image Processing Laboratory 0/0/3/m/4 BMEVIHMA11</p> <p>Applied Computer Systems Laboratory 0/0/3/m/4 BMEVIAUMB03</p>									
Secondary specialization	<p>SMART CITY</p> <p>Sensor networks and applications 2/1/0/e/4 BMEVITMMA09</p> <p>Intelligent traffic systems 2/1/0/e/4 BMEVITMMA10</p> <p>Human-Computer Interaction 2/1/0/e/4 BMEVITMMA11</p> <p>Smart city laboratory 0/0/2/m/2 BMEVITMMB04</p>		<p>SMART SYSTEMS INTEGRATION</p> <p>Circuit environment 2/1/0/m/4 BMEVIEEMA06</p> <p>System level design 2/1/0/e/4 BMEVIEEMA05</p> <p>Fundamentals of smart systems 2/1/0/e/4 BMEVIEEMA04</p> <p>Smart systems design laboratory 0/0/2/m/2 BMEVIEEMB00</p>		<p>OPTICAL COMMUNICATION</p> <p>Optical Network Elements 2/1/0/m/4 BMEVIHVMA05</p> <p>Optical Systems and Applications 2/1/0/e/4 BMEVIHVMA06</p> <p>Optical Networking Architectures 2/1/0/e/4 BMEVITMMA12</p> <p>Optical Networks Laboratory 0/0/2/m/2 BMEVIHVMB03</p>		<p>Project Laboratory 1., Project Laboratory 2., Diploma Thesis Design 1., Diploma Thesis Design 2. can only be taken one after the other having completed the credits of the previous subject.</p> <p>The datasheet of some specialization subjects may include prerequisites. Especially in the case of laboratories that are followed by and based on the knowledge of specialization subjects</p>	<p>LEGEND</p> <p>Subject title 3/1/1/m/5</p> <p>ECTS credit 1 credit represents 30 work hours</p> <p>subject code as in the Neptun course management</p> <p>requirement m: mid-semester mark e: exam</p> <p>number of similar subjects OR specialization blocks</p> <p>weekly hours - lecture - classroom - laboratory</p>		