

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
BELAGAVI**



**Scheme of Teaching and Examinations (2026)**

**M.Tech., in Electronics & Communication Engineering  
(Biomedical Signal Processing & Instrumentation)**

Choice-Based Credit System (CBCS) and Outcome-Based Education (OBE)

II SEMESTER: BIOMEDICAL SIGNAL PROCESSING & INSTRUMENTATION													
S l · N o	Course Type	Course Code	Course Title	Teaching & Learning Scheme					Examination				Cr ed its
				CI		LI	TW & SL	Tot al Hou rs/S em	Du ra tion in ho urs	CIE Mar ks	SE E Mar ks	Tot al Mar ks	
				L	T	P							
1	PCC	1MLBI201	Medical Image Processing	42	0	0	48	90	03	50	50	100	4
2	PCC	1MLBI202	Speech & Audio processing	42	0	0	48	90	03	50	50	100	3
3	PCC	1MLBI203	Smart Sensors & IoT Instrumentation	42	0	0	48	90	03	50	50	100	3
4	PCC	1MLBI204	Calibration Techniques for medical electronics	42	0	28	50	120	03	50	50	100	3
5	PEC	1MLBI205X	Professional Elective Courses-III	42	0	0	48	90	03	50	50	100	3
6	PEC	1MLBI206X	Professional Elective Course-IV	42	0	0	48	90	03	50	50	100	3
7	PCCL	1MLBI207X	Professional Core Course- Lab (AEC Lab)	0	0	28	02	30	03	50	50	100	1
	PCC	1MLBI208	Minor Project	0	0	28	02	30	03	50	50	100	2
<b>TOTAL</b>										<b>350</b>	<b>350</b>	<b>700</b>	<b>22</b>
<p><b>Professional Elective Courses (PECs):</b> Professional Elective Courses – PEC–I and PEC–II – are common to all branches of specialization within a particular Engineering stream. Students may choose the most appropriate elective based on their field of specialization and academic requirements. <i>Note: The number of courses listed under each PEC group may exceed four, depending on the specializations under one stream.</i></p> <p><b>Integrated Professional Core Courses (IPCC):</b> The 1Mxx104x Group comprises specialization-specific core courses that are integrated with a practical component, ensuring application-oriented learning aligned with industry and research needs. The number of courses in the group depends on the number of specializations offered under a particular engineering stream.</p>													

<b>Professional Elective Courses (PECs)</b>			
<b>PEC-III</b>		<b>PEC-IV</b>	
<b>Code</b>	<b>Title of the Course</b>	<b>Code</b>	<b>Title of the Course</b>
1MLBI205A	Medical Informatics & Expert system	1MLBI206A	Bio Materials & Artificial organs
1MLBI205B	Bio Sensors for Smart Health monitoring	1MLBI206B	Medical Robotics
1MLBI205C	AI for Medical Signal Processing	1MLBI206C	Deep Learning in Healthcare
1MLBI205D	Bio Instrumentation	1MLBI206D	Sensors & Wearable Devices

<b>Professional Core Course- Lab (AEC Lab)</b>	
1MLBI207A	Embedded Systems for Medical Instrumentation
1MLBI207B	Edge & Cloud computing