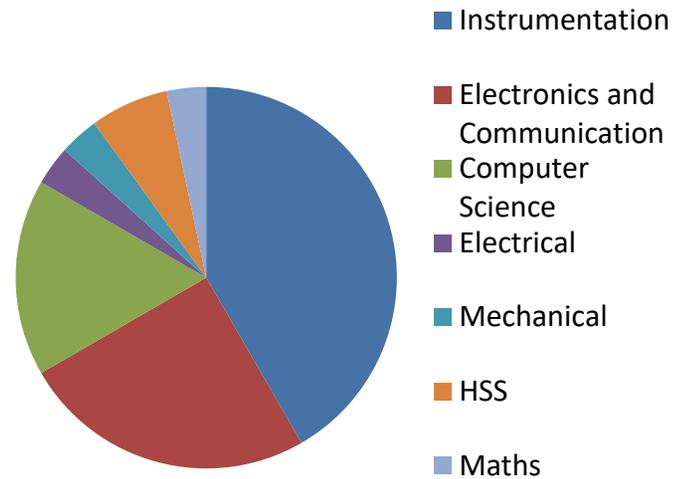


**DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING
BASAVESHWAR ENGINEERING (AUTONOMOUS) COLLEGE, BAGALKOT**

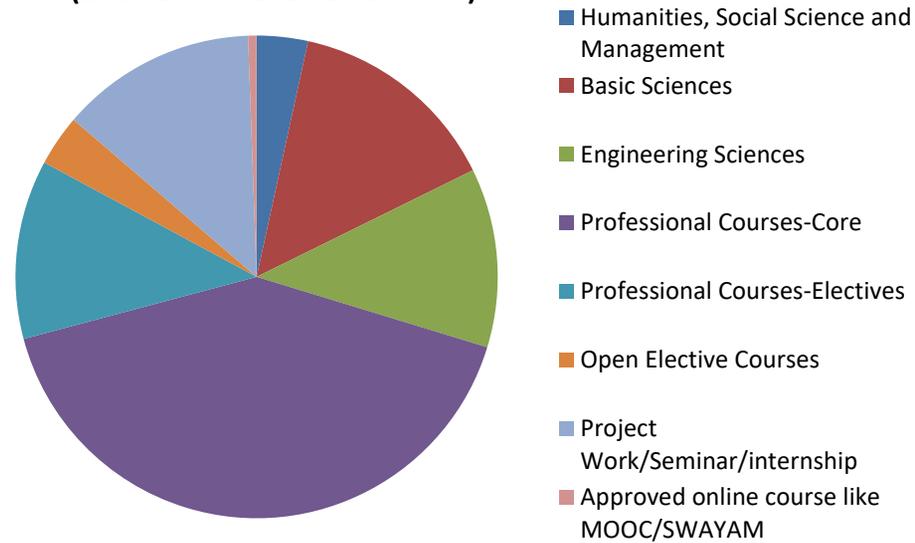
***Stream-wise Breakdown of B.E (E&IE) Curriculum
(2018-19 Admitted to First Year and 2019-20 Lateral Admitted Batches)***

Stream	Number of subjects
Instrumentation	25
Electronics and Communication	15
Computer Science	10
Electrical	2
Mechanical	2
HSS	4
Mathematics	2



Course Category	Category wise breakdown of B.E (E&IE) Program No. of credits
Humanities, Social Science and Management	06
Basic Sciences	25
Engineering Sciences	21
Professional Courses-Core	72
Professional Courses-Electives	21
Open Elective Courses	06
Project Work/Seminar/Internship	23
Approved online course like MOOC/SWAYAM	01
TOTAL	175

**Categorywise Breakdown of B.E. (E&IE)
(2018-19 and 2019-20 Batches)**



SCHEME OF TEACHING AND EXAMINATION
B.E. (III SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UMA335C	Computational Methods for Electrical Science	03	3	-	-	50	50	100
2	UEI341C	Electronic Circuit Analysis and Design	04	4	-	-	50	50	100
3	UEI342C	Digital Design and VHDL	04	3	2	-	50	50	100
4	UEI343C	Electrical Sensors and Transducers	04	4	-	-	50	50	100
5	UEI344C	Electrical Circuit Analysis	04	3	2	-	50	50	100
6	UEI345L	Analog Circuits Laboratory	1.5	-	-	3	50	50	100
7	UEI346L	Digital Circuits Laboratory	1.5	-	-	3	50	50	100
8	UBT133M	<i>Environmental Studies*</i>	-	2	-	-	50	50	100
9	UMA330M	<i>Bridge Course Mathematics-I*</i>	-	3	-	-	50	50	100
		Total	22	17/ 22*	04	06	350/ 450*	350/ 450*	700/ 900*

* For lateral admitted diploma students along with other courses

Note: Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.

SCHEME OF TEACHING AND EXAMINATION
B.E. (IV SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UMA435C	Statistical Methods for Electrical Science	03	3	-	-	50	50	100
2	UEI441H	Entrepreneurship Development	03	3	-	-	50	50	100
3	UEI442C	Signals and Systems	04	3	2	-	50	50	100
4	UEI443C	Linear ICs and Data Converters	04	4	-	-	50	50	100
5	UEI444C	Measurement Techniques and Instruments	03	3	-	-	50	50	100
6	UHS001N	Fundamentals of Quantitative Aptitude and Soft Skills	01	1	-	-	50	50	100
7	UEI445L	Linear ICs and Data Converters Laboratory	1.5	-	-	3	50	50	100
8	UEI446L	Process Instrumentation and Measurement Laboratory	1.5	-	-	3	50	50	100
9	UHS226M	<i>Constitution of India*</i>	-	2	-	-	50	50	100
10	UMA430M	<i>Bridge Course Mathematics-II[#]</i>	-	3	-	-	50	50	100
		Total	21	17/ 22*	02	06	400/ 900*	400/ 900*	800/ 1000*

* For lateral admitted diploma students along with other courses

Note: Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.

SCHEME OF TEACHING AND EXAMINATION
B.E. (V SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UEI541C	Microcontroller and Peripherals	03	3	-	-	50	50	100
2	UEI542C	Process Control	04	4	-	-	50	50	100
3	UEI543C	Digital Signal Processing	04	4	-	-	50	50	100
4	UEI51XE	Dept. Elective-I	03	3	-	-	50	50	100
5	UEI52XE	Dept. Elective – II	03	3	-	-	50	50	100
6	UHS002N	Advanced Quantitative Aptitude and Soft Skills	01	1	-	-	50	50	100
7	UEI544L	DSP Laboratory	1.5	-	-	3	50	50	100
8	UEI545L	Microcontroller Laboratory	1.5	-	-	3	50	50	100
9	UEI546L	Process Control Laboratory	01	-	-	2	50	50	100
Total			22	18	00	08	450	450	900

Note: Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.

Group I

Subject Code	Title	Subject Code	Title
UEI511E	Analytical Instrumentation	UEI512E	Communication Systems
UEI513E	Python Programming	UEI514E	Robotics

Group II

Subject Code	Title	Subject Code	Title
UEI521E	Pneumatics and Hydraulic Instrumentation	UEI522E	Automotive Electronics
UEI523E	Object Oriented Programming with C++	UEI524E	Renewable Energy

SCHEME OF TEACHING AND EXAMINATION

B.E. (VI SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UEI641C	Medical Instrumentation	03	3	-	-	50	50	100
2	UEI642C	Control Systems	04	4	-	-	50	50	100
3	UEI643C	ARM Processor	03	3	-	-	50	50	100
4	UEI61XE	Dept. Elective-III	03	3	-	-	50	50	100
5	UHS003N	Career Planning and Professional Skills	01	1	-	-	50	50	100
6	UXXXXXN	Open Elective-I	03	3	-	-	50	50	100
7	UEI644L	ARM Processor Laboratory	01	-	-	2	50	50	100
8	UCS659L	Advanced C Programming	02	-	2	2	50	50	100
9	UEI645P	Mini Project	03	-	-	6	50	50	100
		Total	23	16	04	10	450	450	900

- Note:** 1. Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.
2. Evaluation of Mini Project is as per the rubrics of BEC Exam Reforms Policy - 2020.

Open Elective-I: UEI646N: Virtual Instrumentation (For students of other departments)

Group III

Subject Code	Title	Subject Code	Title
UEI611E	Intelligent Instrumentation	UEI612E	Micro Electro Mechanical Systems
UEI613E	Computer Networks and Security	UEI614E	Digital Image Processing

SCHEME OF TEACHING AND EXAMINATION
B.E. (VII SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UEI741C	Process Automation	04	4	-	-	50	50	100
2	UEI742C	Lasers and Optical Instrumentation	04	4	-	-	50	50	100
3	UEI71XE	Dept. Elective-IV	03	3	-	-	50	50	100
4	UXXXXXN	Open Elective-II	03	3	-	-	50	50	100
5	UEI743L	Virtual Instrumentation Laboratory	02	0	0	4	50	50	100
6	UEI744L	Process Automation Laboratory	01	-	-	2	50	50	100
7	UEI745I	Internship [#]	02	-	-	-	50	50	100
8	UEI746P	Project Work-Phase I	05	-	-	5	50	50	100
		Total	24	14	00	11	400	400	800

Minimum 4 weeks duration internship program in relevant industry/center of excellence to be completed by the student before admitting to 7th semester and its credentials will be considered in 7th semester.

Note: 1. Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.
 2. Evaluation of Project Work – Phase I is as per the rubrics of BEC Exam Reforms Policy - 2020

Open Elective-II: UEI747N: Industrial Automation (For students of other departments)

Group IV

Subject Code	Title	Subject Code	Title
UEI711E	Data Base Management System	UEI712E	VLSI Design
UEI713E	Internet of Things	UEI714E	Advanced Control Systems

2018-19 Batch

SCHEME OF TEACHING AND EXAMINATION
B.E. (VIII SEMESTER) ELECTRONICS AND INSTRUMENTATION ENGINEERING

Sl. No	Subject Code	Subject	Credits	Hours/ Week			Examination Marks		
				L	T	P	CIE	SEE	Total
1	UEI81XE	Dept. Elective-V	03	3	0	0	50	50	100
2	UEI82XE	Dept. Elective-VI	03	3	0	0	50	50	100
3	UEI83XE	Dept. Elective- VII	03	3	0	0	50	50	100
4	UEI841S	Technical Seminar	01	0	0	2	50	50	100
5	UEI842P	Project Work-Phase II	12	0	0	12	50	50	100
Total			22	09	00	14	250	250	500

- Note:** 1. Students need to register and earn one credit from BoS approved online course (NPTEL/MOOC or equivalent) before the completion of B.E. program.
2. Evaluation of Technical Seminar and Project Work – Phase II is as per the rubrics of BEC Exam Reforms Policy - 2020

Group-V

Subject Code	Title	Subject Code	Title
UEI811E	Industrial Drives and Machines	UEI812E	JAVA
UEI813E	Cloud Computing	UEI814E	Industrial Electronic Equipment Design

Group-VI

Subject Code	Title	Subject Code	Title
UEI821E	Industrial Safety	UEI822E	Wireless Communication
UEI823E	Aeronautical Instrumentation	UEI824E	Artificial Intelligence and Machine Learning

Group VII

Subject Code	Title	Subject Code	Title
UEI831E	Industrial Buses and Data Networks	UEI832E	Operating Systems
UEI833E	Process Modeling	UEI834E	Biomedical Signal Processing