



**MVJ College of Engineering, Bengaluru**  
**(An Autonomous Institute)**

Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi, Recognised by UGC with 2(f) & 12 (B),  
Accredited by NBA & NAAC

Scheme of Teaching and Examination 2022-23

**Department of Computer Science and Design**

Outcome Based Education (OBE) and Choice Based Credit System (CBCS) Effective from the academic year 2022-23

### III SEMESTER

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits
					Th e o r y/ le c t u r e	T u t o r i a l s	P r a c t i c a l/ D r a w i n g	S e l f- S t u d y C o m p o n e n t s	D u r a t i o n i n H o u r s	C I E M a r k s	S E E M a r k s	T o t a l M a r k s	
	Type	Code			L	T	P	S					
1	BSC	MVJ22CG31	Mathematics for Computer Science	MA	3	0	0	-	03	50	50	100	3
2	IPCC	MVJ22CG32	Operating Systems	CG	3	0	2	-	03	50	50	100	4
3	PCC	MVJ22CG33	Digital Design & Computer Organization	CG	3	0	0	-	03	50	50	100	3
4	PCC	MVJ22CG34	Data Structures and Applications	CG	3	0	0	-	03	50	50	100	3
5	PCCL	MVJ22CGL35	Data Structures Lab	CG	0	0	2	-	03	50	50	100	1
6	ESC	MVJ22CG36X	ETC/ESC/PLC	CG	3	0	0	-	03	50	50	100	3
7	SCR	MVJ22SCR37	Social Connect and Responsibility	CG	0	0	2	-	01	100	-	100	1
8	AEC/SEC	MVJ22A3YY1	AEC Vertical Level 1	Respective Vertical	1	0	2	-	02	50	50	100	2
9	MC	MVJ22NS39	National Service Scheme (NSS).	NSS coordinator	0	0	2	-	-	100	-	100	0
		MVJ22PE39	Physical Education (PE) (Sports and Athletics).	PE Director									

		MVJ22YO39	Yoga.	Yoga Teacher									
10	BSC	MVJ22MATDIP-I	Additional Mathematics-I	MA	2	0	0	-	3	100	-	100	0
<b>Total</b>													<b>20</b>

**Note:** **BSC:** Basic Science Course, **IPCC:** Integrated Professional Core Course, **PCC:** Professional Core Course, **PCCL:** Professional Core Course laboratory, **ESC:** Engineering Science Course, **ETC:** Emerging Technology Course, **PLC:** Programming Language Course, **SCR:** Social Connect Responsibility, **AEC:** Ability Enhancement Course, **SEC:** Skill Enhancement Course, **MC:** Mandatory Course (Non-credit), **L:** Lecture, **T:** Tutorial, **P:** Practical, **S:** Self Study, **SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

Engineering Science Course (ESC/ETC/PLC)			
MVJ22CG361	Functional programming using Java	MVJ22CG363	Data Analytics with EXCEL
MVJ22CG362	Python programming for AI & ML	MVJ22CG364	Data Analytics with R
Ability Enhancement Course – III – MVJ22AXYYL (X is Semester, YY is vertical Number, L is level of the vertical)			
MVJ22A3011	Idea Box - Innovation	MVJ22A3071	IoT – Connecting the world
MVJ22A3021	Tomorrow's Engineers – Engineering Solution to Societal Problems	MVJ22A3081	FSIPD –Ideas to Product
MVJ22A3031	Tinkering Lab – Experiment and Conceptualize	MVJ22A3091	Software Development - Code your ideas
MVJ22A3041	UAV – Develop Drones	MVJ22A3101	LabVIEW – Graphical Programming
MVJ22A3051	Astronomy – Explore the space	MVJ22A3111	CNC Programming – Advanced Manufacturing
MVJ22A3061	Robotics and Industrial Automation Lab – Design Robots	MVJ22A3121	NCC

**Professional Core Course (IPCC):** Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L: T: P) can be considered as (3: 0: 2) or (2: 2: 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by both CIE and SEE.

**National Service Scheme/Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga (YOG) ) other than whichever they had studied in the previous semesters with the concerned department during the course registration. Successful completion of the registered course and minimum of 40% of CIE is mandatory for the award of the Degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of Degree.

Additional Mathematics-II should be compulsorily taken by lateral entry students.

#### IV SEMESTER

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits	
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks		
	Type	Code			L	T	P	S						
1	PCC	MVJ22CG41	Analysis & Design of Algorithms	CG	3	0	0	-	03	50	50	100	3	
2	IPCC	MVJ22CG42	Computer graphics and visualization	CG	3	0	2	-	03	50	50	100	4	
3	IPCC	MVJ22CG43	Database Management Systems	CG	3	0	2	-	03	50	50	100	4	
4	PCCL	MVJ22CGL44	Analysis & Design of Algorithms Lab	CG	0	0	2	-	03	50	50	100	1	
5	ESC	MVJ22CG45X	ESC/ETC/PLC	CG	3	0	0	-	03	50	50	100	3	
6	AEC/SEC	MVJ22A4YY2	AEC Vertical Level 2	Respective Verticals	1	0	2	-	02	50	50	100	2	
7	BSC	MVJ22BI47	Biology For Engineers	CG	2	0	0	-	02	50	50	100	2	
8	UHV	MVJ22UHV48	Universal human values course	CG	1	0	0	-	02	50	50	100	1	
9	MC	MVJ22NS49	National Service Scheme (NSS).	NSS coordinator	0	0	2	-	-	100	-	100	0	
		MVJ22PE49	Physical Education (PE) (Sports and Athletics).	PE Director										
		MVJ22YO49	Yoga.	Yoga Teacher										
10	BSC	MVJ22MATDIP-II	Additional Mathematics-II	MA	2	0	0	-	3	100	-	100	0	
Total														20

**Note:** **PCC:** Professional Core Course, **IPCC:** Integrated Professional Core Course, **PCCL:** Professional Core Course laboratory, **ESC:** Engineering Science Course, **ETC:** Emerging Technology Course, **PLC:** Programming Language Course, **AEC:** Ability Enhancement Course, **SEC:** Skill Enhancement Course, **BSC:** Basic Science Course, **UHV:** Universal Human Value Course, **MC:** Mandatory Course (Non-credit), **L:** Lecture, **T:** Tutorial, **P:** Practical, **S:** Self Study, **SDA:** Skill Development Activity, **CIE:** Continuous Internal Evaluation, **SEE:** Semester End Evaluation.

Engineering Science Course (ESC/ETC/PLC)			
MVJ22CG451	Discrete Mathematical Structures	MVJ22CG453	Optimization Technique
MVJ22CG452	Graph Theory	MVJ22CG454	Data visualization with Python
Ability Enhancement Course / Skill Enhancement Course – IV - MVJ22AXYYL (X is Semester, YY is vertical Number, L is level of the vertical)			
MVJ22A4012	Idea Box - Innovation	MVJ22A4072	IoT – Connecting the world
MVJ22A4022	Tomorrow's Engineers – Engineering Solution to Societal Problems	MVJ22A4082	FSIPD –Ideas to Product
MVJ22A4032	Tinkering Lab – Experiment and Conceptualize	MVJ22A4092	Software Development - Code your ideas
MVJ22A4042	UAV – Develop Drones	MVJ22A4102	LabVIEW – Graphical Programming
MVJ22A4052	Astronomy – Explore the space	MVJ22A4112	CNC Programming – Advanced Manufacturing
MVJ22A4062	Robotics and Industrial Automation Lab – Design Robots	MVJ22A4122	NCC
<p><b>Professional Core Course (IPCC):</b> Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L: T: P) can be considered as (3: 0: 2) or (2: 2: 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by both CIE and SEE.</p> <p><b>National Service Scheme/Physical Education/Yoga:</b> All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga (YOG) ) other than whichever they had studied in the previous semesters with the concerned department during the course registration. Successful completion of the registered course and minimum of 40% of CIE is mandatory for the award of the Degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of Degree.</p> <p>Additional Mathematics-II should be compulsorily taken by lateral entry students.</p>			

## V SEMESTER

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	L	T											
1	HSMC	MVJ22CG51	Software Engineering & Project Management	CG	3	0	0	-	03	50	50	100	3
2	IPCC	MVJ22CG52	Computer Networks	CG	3	0	2	-	03	50	50	100	4
3	PCC	MVJ22CG53	Theory of Computation	CG	4	0	0	-	03	50	50	100	4
4	PCCL	MVJ22CGL54	OO Design Pattern Lab	CG	0	0	2	-	03	50	50	100	1
5	PEC	MVJ22CG55X	Professional Elective-I	CG	3	0	0	-	03	50	50	100	3
6	PROJ	MVJ22CGP56	Mini Project	CG	0	0	4	-	03	100	-	100	2
7	AEC	MVJ22RMI57	Research Methodology and IPR	CG	3	0	0	-	03	50	50	100	3
8	MC	MVJ22ENV58	Environmental Studies	CV	2	0	0		02	50	50	100	2
9	MC	MVJ22NS59	National Service Scheme (NSS).	NSS coordinator	0	0	2	-	-	100	-	100	0
		MVJ22PE59	Physical Education (PE) (Sports and Athletics).	PE Director									
		MVJ22YO59	Yoga.	Yoga Teacher									
Total													22
Note: IPCC: Integrated Professional Core Course, PCC: Professional Core Course, PCCL: Professional Core Course laboratory, UHV: Universal Human Value Course, MC: Mandatory Course (Non-credit), AEC: Ability Enhancement Course, SEC: Skill Enhancement Course, L: Lecture, T: Tutorial, P: Practical S: Self Study, SDA: Skill Development Activity, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation. PROJ: Project /Mini Project. PEC: Professional Elective Course													

Course Code	Professional Elective-I
MVJ22CG551	Video Processing
MVJ22CG552	Artificial Intelligence
MVJ22CG553	Unix System Programming
MVJ22CG554	Designing human centered systems
MVJ22IE555	Innovation & Entrepreneurship

**Professional Core Course (IPCC):** Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L: T: P) can be considered as (3: 0: 2) or (2: 2: 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by both CIE and SEE.

**National Service Scheme/Physical Education/Yoga:** All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga(YOG) other than whichever they had studied in the previous semesters with the concerned department during the course registration. Successful completion of the registered course and minimum of 40% of CIE is mandatory for the award of the Degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of Degree.

**Mini-project work:** Mini Project is a laboratory-oriented/hand on course that will provide a platform to students to enhance their practical knowledge and skills by the development of small systems/applications etc. Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini- project can be assigned to an individual student or to a group of students having not more than 4 students.

**CIE procedure for Mini-project:**

**(i) Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned department and two faculty members of the Department, one of them being the Guide.

**(ii) Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of the all guides of the project.

**The Continuous Internal Evaluation (CIE)** marks for the Mini Project shall be awarded based on four components: demonstration of the project, evaluation of the project report, project presentation skills, and performance in the Viva Voce, in the ratio of 25:25:25:25 respectively. The marks awarded for the project report will be common to all members of the project batch.

**No SEE component for Mini-Project.**

**Professional Elective Courses (PEC):** A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of Engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering a professional elective is 40% of class strength.



**VI SEMESTER**

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits
					The ory lect ure	Tuto rials	Pr act ica l/ Dr aw ing	Se lf-St ud y C o m po ne nt s	D ur at io n in H o ur s	CI E M ar ks	S E E M ar ks	To tal M ar ks	
	L	T											
1	IPCC	MVJ22CG61	Machine Learning	CG	3	0	2	-	03	50	50	100	4
2	PCC	MVJ22CG62	Design Processes and Perspectives	CG	3	0	0	-	03	50	50	100	3
3	PEC	MVJ22CG63X	Professional Elective-II	CG	3	0	0	-	03	50	50	100	3
4	OEC	MVJ22CG64X	Open Elective-I	CG	3	0	0	-	03	50	50	100	3
5	PROJ	MVJ22CGP65	Project Phase-I	CG	0	0	4	-	03	100	-	100	2
6	PCCL	MVJ22CGL66	UI/UX Lab	CG	0	0	2	-	03	50	50	100	1
7	AEC/SDC	MVJ22A6YY3	AEC Vertical Level 3	Respective Vertical	1	0	2	-	02	50	50	100	1
8	HMSC	MVJ22IKK68	Indian Knowledge System	CG	1	0	0	-	02	50	50	100	1
9	MC	MVJ22NS69	National Service Scheme (NSS).	NSS coordinator	0	0	2	-	-	100	-	100	0
		MVJ22PE69	Physical Education (PE) (Sports and Athletics).	Physical Education Director									
		MVJ22YO69	Yoga.	Yoga Teacher									
Total													18
Note: IPCC: Integrated Professional Core Course, PCC: Professional Core Course, PEC: Professional Elective Course, OEC: Open Elective Course, PROJ: Project /Mini Project, PCCL: Professional Core Course laboratory, AEC: Ability Enhancement Course, MC: Mandatory Course (Non-credit), L: Lecture, T: Tutorial, P: Practical S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.													

Course Code	Professional Elective-II	Course Code	Open Elective-I
MVJ22CG631	Multimedia Systems Design	MVJ22CG641	Introduction to Data Structures
MVJ22CG632	Cloud Computing	MVJ22CG642	Fundamentals of Operating Systems
MVJ22CG633	Blockchain Technology	MVJ22CG643	Mobile Application Development

MVJ22CG634	Advanced JAVA	MVJ22CG644	Introduction to AI
------------	---------------	------------	--------------------

<b>Ability Enhancement Course / Skill Enhancement Course-V - MVJ22AXYYL (X is Semester, YY is vertical Number, L is level of the vertical)</b>			
MVJ22A6013	Idea Box - Innovation	MVJ22A6073	IoT – Connecting the world
MVJ22A6023	Tomorrow's Engineers – Engineering Solution to Societal Problems	MVJ22A6083	FSIPD –Ideas to Product
MVJ22A6033	Tinkering Lab – Experiment and Conceptualize	MVJ22A6093	Software Development - Code your ideas
MVJ22A6043	UAV – Develop Drones	MVJ22A6103	LabVIEW – Graphical Programming
MVJ22A6053	Astronomy – Explore the space	MVJ22A6113	CNC Programming – Advanced Manufacturing
MVJ22A6063	Robotics and Industrial Automation Lab – Design Robots	MVJ22A6123	NCC
<p><b>Professional Core Course (IPCC):</b> Refers to Professional Core Course Theory Integrated with practical of the same course. Credit for IPCC can be 04 and its Teaching– Learning hours (L: T: P) can be considered as (3: 0: 2) or (2: 2: 2). The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by both CIE and SEE.</p> <p><b>National Service Scheme/Physical Education/Yoga:</b> All students have to register for any one of the courses namely National Service Scheme (NSS), Physical Education (PE)(Sports and Athletics), and Yoga (YOG) other than whichever they had studied in the previous semesters with the concerned department during the course registration. Successful completion of the registered course and minimum of 40% of CIE is mandatory for the award of the Degree. The events shall be appropriately scheduled by the colleges and the same shall be reflected in the calendar prepared for the NSS, PE, and Yoga activities. These courses shall not be considered for vertical progression as well as for the calculation of SGPA and CGPA, but completion of the course is mandatory for the award of Degree.</p>			
<p><b>Professional Elective Courses (PEC):</b> A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of Engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering a professional elective is 10. However, this conditional shall not be applicable to cases where the admission to the program is less than 10.</p>			
<p><b>Open Elective Courses:</b></p> <p>Students enrolled in a specific stream within the Engineering and Technology program are not permitted to choose open electives offered by their own Department. However, they may opt for electives provided by other Departments, as long as the selected course does not overlap more than 30% with subjects already covered in their curriculum. The registration process for open electives must be carried out under the supervision of the Program Coordinator, Advisor, or Mentor. Additionally, an open elective course will only be offered if a minimum of 50 students enrolls.</p>			
<p><b>Project Phase-I:</b> Students are required to consult with their mentor or guide to conduct a comprehensive literature survey, prepare a detailed report, and ultimately define the problem statement for their project work.</p>			

## VII SEMESTER

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Cr edi ts
					T he o r y l e c t u r e	Tu t o r i a l s	Pr a c t i c a l/ Dr a w i n g	S e l f - S t u d y C o m p o n e n t s	D u r a t i o n i n H o u r s	CIE Mark s	SEE Mark s	Total Marks	
	L	T											
1	IPCC	MVJ22CG71	Robotic Process Automation Design and Development (UiPath)	CG	3	0	2	-	03	50	50	100	4
2	IPCC	MVJ22CG72	Natural Language Processing	CG	3	0	2	-	03	50	50	100	4
3	PCC	MVJ22CG73	Cryptography &and Network Security	CG	4	0	0	-	03	50	50	100	4
4	PEC	MVJ22CG74X	Professional Elective-III	CG	3	0	0	-	03	50	50	100	3
5	OEC	MVJ22CG75X	Open Elective-II	CG	3	0	0	-	03	50	50	100	3
6	PROJ	MVJ22CGP76	Major Project Phase II	CG	0	0	12	-	03	100	100	200	6
Total													24
Note: IPCC: Integrated Professional Core Course, PCC: Professional Core Course, PEC: Professional Elective Course, OEC: Open Elective Course, PROJ: Project /Mini Project, L: Lecture, T: Tutorial, P: Practical S: Self Study, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation.													

Course Code	Professional Elective-III	Course Code	Open Elective-II
MVJ22CG741	Virtual Reality and Augmented Reality	MVJ22CG751	Introduction to DBMS
MVJ22CG742	Multimedia database systems	MVJ22CG752	Introduction to Algorithms
MVJ22CG743	Deep Learning	MVJ22CG753	Computer Graphics
MVJ22CG744	Animation Principles and Design	MVJ22CG754	Cybersecurity

**Professional Elective Courses (PEC):** A professional elective (PEC) course is intended to enhance the depth and breadth of educational experience in the Engineering and Technology curriculum. Multidisciplinary courses that are added supplement the latest trend and advanced technology in the selected stream of Engineering. Each group will provide an option to select one course. The minimum number of students' strengths for offering a professional elective is 40% of class strength.

**Open Elective Courses:**

Students enrolled in a specific stream within the Engineering and Technology program are not permitted to choose open electives offered by their own Department. However, they may opt for electives provided by other Departments, as long as the selected course does not overlap more than 30% with subjects already covered in their curriculum. The registration process for open electives must be carried out under the supervision of the Program Coordinator, Advisor, or Mentor. Additionally, an open elective course will only be offered if a minimum of 50 students enrolls.

**CIE procedure for Project Work:**

**(1) Single discipline:** The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.

**(2) Interdisciplinary:** Continuous Internal Evaluation shall be group-wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable.

The CIE marks awarded for the project work shall be based on the evaluation of the demonstration of project work, Report, project presentation skill, and VIVA-VOCE in the ratio 25:25:25:25. The marks awarded for the project report shall be the same for all the batch mates.

**SEE procedure for Project Work:** SEE for project work will be conducted by the two examiners appointed by the Institute. The SEE marks awarded for the project work shall be based on the evaluation of demonstration of project work, Report, project presentation skill, and VIVA-VOCE session in the ratio 25:25:25:25

# VIII SEMESTER

Sl. No.	Course		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits
					Theory lecture	Tutorials	Practical/ Drawing	Self-Study Components	Duration in Hours	CIE Marks	SEE Marks	Total Marks	
	L	T											
1	PEC	MVJ22CG81X	Professional Elective-IV (Online Courses, NPTEL/SWAYAM)	CG	-	-	-	-	-	-	-	-	3
2	OEC	MVJ22CG82X	Open Elective-III (Online Courses, NPTEL/SWAYAM)	CG	-	-	-	-	-	-	-	-	3
3	INT	MVJ22CGI83	Internship (Industry/Research) (14-20 weeks)	CG	0	0	20	-	03	100	100	200	10
Total													16
Note: PEC: Professional Elective Course, OEC: Open Elective Course, INT: Internship, CIE: Continuous Internal Evaluation, SEE: Semester End Evaluation,													

Course Code	Professional Elective-IV	Course Code	Open Elective-III
MVJ22CG811	NPTEL/SWAYAM	MVJ22CG821	NPTEL/SWAYAM
MVJ22CG812	NPTEL/SWAYAM	MVJ22CG822	NPTEL/SWAYAM
MVJ22CG813	NPTEL/SWAYAM	MVJ22CG823	NPTEL/SWAYAM
MVJ22CG814	NPTEL/SWAYAM	MVJ22CG824	NPTEL/SWAYAM

**Elucidation:**

At the beginning of IV years of the program i.e., after VI semester, VII semester class work and VIII semester **Research Internship/Industrial Internship/Rural Internship** shall be permitted to be operated simultaneously by the Institute so that students have ample opportunity for an internship. In other words, a good percentage of the class shall attend VII semester class work and a similar percentage of others shall attend to Research Internship or Industrial Internship or Rural Internship.

Research/Industrial /Rural Internship shall be carried out at an Industry, NGO, MSME, Innovation center, Incubation center, Start-up, center of Excellence (CoE), Research Centre established in the parent institute and /or at reputed research organizations/institutes.

The mandatory Research internship /Industry internship / Rural Internship are for 14 to 20 Weeks. The internship shall be considered as a head of passing and shall be considered for the award of a Degree. Those, who do not take up/complete the internship shall be declared to fail and shall have to complete it during the subsequent SEE examination after satisfying the internship requirements.

**Research internship:** A research internship is intended to offer the flavor of current research going on in the research field. It helps students get familiarized with the field and imparts the skill required for carrying out research.

**Industry internship:** Is an extended period of work experience under taken by students to supplement their Degree for professional development. It also helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencies helps students recognize, appreciate, and adapt to organizational realities by tempering their knowledge with practical constraints.

**Rural Internship:** Rural development internship is an initiative of Unnat Bharat Abhiyan Cell, RGIT in association with AICTE to involve students of all departments studying in different academic years for exploring various opportunities in techno-social fields, to connect and work with Rural India for their upliftment.

The faculty coordinator or mentor has to monitor the student's internship progress and interact with them to guide for the successful completion of the internship. The students are permitted to carry out the internship anywhere in India or abroad. Institute shall not bear any expenses incurred in respect of the internship.

With the consent of the internal guide and Principal of the Institution, students shall be allowed to carry out the internship at their hometown (**within or outside the state or abroad**), provided favorable facilities are available for the internship and the student remains regularly in contact with the internal guide. **Institute shall not bear any cost involved in carrying out the internship by students.** However, students can receive any financial assistance extended by the organization.

**Professional Elective/Open Elective Course:** These are ONLINE courses suggested by the respective Board of Studies. Details of these courses shall be made available for students by the respective board of studies well before starting of semester. For the ONLINE courses, completion of 4-week course is equivalent to one credit.

HOD

BOS

Dean Academics