



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ವಿಜಯ ಅಭಿವಿಷಯ ರಕ್ಷಣೆ"ರ ಅಡಿಯಲ್ಲಿ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ಹಾಗೂ ವಿಶ್ವವಿದ್ಯಾಲಯ
"ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ-ಜಿ.ಕೆ.ಎಂ.ರಸ್ತೆ, ಕರ್ನಾಟಕ, ಭಾರತ

Visvesvaraya Technological University

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Ref: VTU/BOS/A9/2020-21 / 2502

Date: 4 AUG 2022

NOTIFICATION

Subject: Notification of new scheme of Teaching and Examination(2022) for Post Graduate Programs for Affiliated, Constituent and Autonomous Colleges regarding...

Reference: JBoS proceedings dated 11.07.2022

As per the Joint Board of Studies Proceedings dated 11.07.2022 the scheme of Teaching and Examinations for Post-Graduate programs of University has been revised with effect from the academic year 2022-23 and important points to be noted are mentioned below;

1. **Mathematics** Courses suitable to stream /branch at I semester level is mandatory (for M.Tech programs)
2. **Research Methodology and IPR** is a Mandatory course in the I semester or all PG programs
3. **PEC**-Professional Elective courses should be selected to support mainstream study. The minimum number of PECs options in each group should be 05.
4. The total number of **credits** for all M.Tech., programs is **80**(NSQF), whereas for MBA, MCA and M.Arch., it is **100**
5. More weightage for formative assessment **CIE: SEE=50:50** common to all PG programs
6. There are 02 numbers **IPCC** courses one in 1st and another in 2nd semesters (IPCC-Integrated Professional Core Course -the professional theory core course is merged with the practical of the same course). Theory will have both CIE and SEE, however, practical component will have only CIE. However, questions from the practical component will be asked in theory SEE.
7. There are 02 numbers of **PCC**- Professional Core Courses of **04** credits each in 1st and 3rd semesters
8. **The number of hours of teaching based on the credits is listed below-**

04 credits courses	50 hours of the Teaching-Learning process
04 credits course (IPCC)	40 hours of Teaching-Learning process and 10-12 laboratory sessions
03 credits course	40 hours of Teaching-Learning process
02 credits course	25 hours of Teaching-Learning process
01 credit course	10-12 hours of Teaching-Learning process

- **Internship**- of **06 weeks'** durations should be completed between the intervening period (vocation) of the **II and III** semesters of **all the PG programs**.
- **Mini Project with the Seminar**: is in 2nd semester for all M.Tech., programs. There is no SEE for this courses.
- **Societal Projects**- is in 3rd semester mandatory course for all PG Programs. There is no SEE for this course.
- **SDA-Skill Development Activity**; The academic activities that enhance the skill. In each PCC theory course template, academic activities which will enhance the Skill are listed for the student information and for compliance. CIE Marks will be assigned for the completion of the SDA component.
- **OEC-Open Elective Course**- Interdisciplinary course which will help to learn another area of study and also helps in project work.

- **Continuous Syllabus updating provision;** Based on the Industry requirement new courses can be added to PEC and OEC groups or the updating of the existing courses

The types of the courses: **BSC**- Basic Science Courses, **PCC**-Professional Core Courses, **IPCC**-Integrated Professional Core Courses, **MC**-Mandatory Courses, **PROJ**- Project, **MPS**- Mini project with Seminar **INT**- Internship, **SP**-Societal Project, **PCCL**-Professional Core Course Laboratory.

The M.Tech., scheme is notified and attached with this notification for reference. The 2022-scheme of Teaching and Examinations is prepared in line with National Education Policy-2020.

All the principals of the Engineering Colleges under the ambit of the University are hereby informed to bring the content of the notification to the notice of all concerned.

Encl: M.Tech., Scheme of Teaching & Examinations(2022)

Sd/-
REGISTRAR

To,

1. The Principals of all Affiliated/Constituent /Autonomous Engineering Colleges and all Schools of Architecture under the ambit of VTU Belagavi.
2. The Chairpersons of all Departments, Centres for PG Studies in Belagavi, Kalaburgi, Muddenahalli, and Mysore.

Copy to.

- The Hon'ble Vice-Chancellor through the secretary to VC, VTU Belagavi for information
- The Registrar (Evaluation), VTU Belagavi for information.
- The Regional Directors (I/c) of all the regional offices of VTU for circulation.
- The Director/ITI SMU VTU Belagavi for uploading on VTU website
- PS to Registrar VTU Belagavi
- All the concerned Special Officer/s and Caseworker/s of the academic section, VTU, Belagavi


REGISTRAR

7

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI.



Scheme of Teaching and Examinations and Syllabus
M.Tech., Program Title (XXX)
(Effective from the Academic year 2022-23)

Registrar,
Visvesvaraya Technological University
JnanaSangam, Machhe, Belagavi-590018
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examinations – 2022
M.Tech., Title of the Program (XXX) (Font 09 Capital, Calibri)
Choice Based Credit System (CBCS) and Outcome-Based Education(OBE)

I SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours per Week			Examination				Credits
				Theory	Practical/Seminar	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks	Total Marks	
				L	P	T/SDA					
1	BSC	22XXX11	Title Of The Course (Mathematics course stream or branch-specific)	03	00	00	03	50	50	100	3
2	IPCC	22XXX12		03	02	00	03	50	50	100	4
3	PCC	22XXX13		03	00	02	03	50	50	100	4
4	PCC	22XXX14		02	00	02	03	50	50	100	3
5	PCC	22XXX15		02	00	02	03	50	50	100	3
6	MCC	22RMI16	Research Methodology and IPR	03	00	00	03	50	50	100	3
7	PCCL	22xxxL17	Laboratory session	01	02	00	03	50	50	100	2
8	AUD/AEC	22AUD18/ 22AEC18	BOS recommended ONLINE courses	Classes and evaluation procedures are as per the policy of the online course providers.							PP
TOTAL				17	04	06	21	350	350	700	22

Note: BSC-Basic Science Courses, PCC: Professional core. IPCC-Integrated Professional Core Courses, MCC- Mandatory Credit Course, AUD/AEC –Audit Course / Ability Enhancement Course(A pass in AUD/AEC is mandatory for the award of the degree), PCCL-Professional Core Course lab, **L-Lecture**, **P-Practical**, **T/SDA-Tutorial / Skill Development Activities**(Hours are for Interaction between faculty and students)

Integrated Professional Core Course (IPCC): Integrated Professional Core Course (IPCC): Refers to Professional Theory Core Course Integrated with practical of the same course. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by only CIE (no SEE). However, questions from the practical part of IPCC shall be included in the SEE question paper.

Audit Courses /Ability Enhancement Courses Suggested by BOS (ONLINE courses): **Audit Courses:**These are prerequisite courses suggested by the concerned Board of Studies. Ability Enhancement Courses will be suggested by the BoS if prerequisite courses are not required for the programs. **Ability Enhancement Courses:**

- These courses are prescribed to help students to enhance their skills in in fields connected to the field of specialisation as well allied fields that leads to employable skills. Involving in learning such courses are impetus to lifelong learning.
- The courses under this category are online courses published in advance and approved by the concerned Board of Studies.
- Registration to Audit /Ability Enhancement Course shall be done in consultation with the mentor and is compulsory during the concerned semester.
- In case a candidate fails to appear for the proctored examination or fails to pass the selected online course, he/she can register and appear for the same course if offered during the next session or register for a new course offered during that session, in consultation with the mentor.
- The Audit Ability Enhancement Course carries no credit and is not counted for vertical progression. However, a pass in such a course is mandatory for the award of the degree.

Skill development activities: Under Skill development activities in a concerning course, the students should

1. Interact with industry (small, medium, and large).
2. Involve in research/testing/projects to understand their problems and help creative and innovative methods to solve the problem.
3. Involve in case studies and field visits/ fieldwork.
4. Accustom to the use of standards/codes etc., to narrow the gap between academia and industry.
5. Handle advanced instruments to enhance technical talent.
6. Gain confidence in modelling of systems and algorithms for transient and steady-state operations, thermal study, etc.
7. Work on different software/s (tools) to simulate, analyze and authenticate the output to interpret and conclude.

All activities should enhance student's abilities to employment and/or self-employment opportunities, management skills, Statistical analysis, fiscal expertise, etc.

Students and the course instructor/s to involve either individually or in groups to interact together to enhance the learning and application skills of the study they have undertaken. The students with the help of the course teacher can take up relevant technical –activities which will enhance their skill. The prepared report shall be evaluated for CIE marks.

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II SEMESTER											
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination			Credits	
				Theory	Practical/ Seminar	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks		Total Marks
				L	P	T/SDA					
1	PCC	22XXX21		02	00	02	03	50	50	100	3
2	IPCC	22XXX22		03	02	00	03	50	50	100	4
3	PEC	22XXX23x	Professional elective 1	02	00	02	03	50	50	100	3
4	PEC	22XXX24x	Professional elective 2	02	00	02	03	50	50	100	3
5	MPS	22XXX25	Mini Project with Seminar	00	04	02	--	100	--	100	3
6	PCCL	22xxxL26	Laboratory session	01	02	00	03	50	50	100	02
7	AUD/ AEC	22AUD27	Suggested ONLINE courses	Classes and evaluation procedures are as per the policy of the online course providers.						pp	
TOTAL				10	08	08	15	350	250	600	18
Note: PCC: Professional core courses, PEC: Professional Elective Courses, IPCC-Integrated Professional Core Courses. MPS-Mini Project With Seminar; AUD/AEC; Audit Courses / Ability Enhancement Courses (Mandatory), PCCL-Professional Core Course lab, L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities (Hours are for Interaction between faculty and students)											

Professional Elective 1		Professional Elective 2	
Course Code under 22XXX24X	Course title	Course Code under 22XXX25X	Course title
22XXX241		22XXX251	
22XXX242		22XXX252	
22XXX243		22XXX253	
22XXX244		22XXX254	
22XXX245		22XXX255	

Note:

1 Mini Project with Seminar: This may be hands-on practice, survey report, data collection and analysis, coding, mobile app development, field visit and report preparation, modelling of system, simulation, analysing and authenticating, case studies, etc. CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide, if any, and a senior faculty of the department. Students can present the seminar based on the completed mini-project. Participation in the seminar by all postgraduate students of the program shall be mandatory.

The CIE marks awarded for Mini-Project work and Seminar, shall be based on the evaluation of Mini Project work and Report, Presentation skill and performance in Question and Answer session in the ratio 50:25:25. Mini-Project with Seminar shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take-up/complete the Mini Project and Seminar shall be declared as fail in that course and have to complete the same during the subsequent semester. There is no SEE for this course.

2. Internship: All the students shall have to undergo a mandatory internship of **06 weeks** during the vacation of II and III semesters. A University examination shall be conducted during III semester and the prescribed internship credit shall be counted in the same semester. The internship shall be considered as a head of passing and shall be considered for vertical progression as well as for the award of degree. Those, who do not take-up/complete the internship shall be declared as fail in the internship course and have to complete the same during the subsequent University examination after satisfying the internship requirements.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI
Scheme of Teaching and Examinations – 2020 - 21
M.Tech., title of the Programme (XXX) (Font 09 Capital, Calibri)
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III SEMESTER

Sl. No	Course	Course Code	Course Title	Teaching Hours /Week			Examination			Credits	
				Theory	Practical/ Mini-Project/ Internship	Tutorial/ Skill Development Activities	Duration in hours	CIE Marks	SEE Marks		Total Marks
				L	P	SDA					
1	PCC	22xxx31		03	00	02	03	50	50	100	4
2	PEC	22XXX32X	Professional elective 3	03	00	00	03	50	50	100	3
3	OEC	22XXX33X	Open elective Courses-1	03	00	00	03	50	50	100	3
4	PROJ	22XXX34	Project Work phase -1	00	06	00	--	100	--	100	3
5	SP	22XXX35	Societal Project	00	06	00	--	100	--	100	3
6	INT	22XXXI36	Internship	(06 weeks Internship Completed during the intervening vacation of II and III semesters.)			03	50	50	100	6
TOTAL				09	12	03	12	400	200	600	22

Note: PCC: Professional core courses, PEC: Professional Elective Courses, IPCC-Integrated Professional Core Courses. MPS-Mini Project With Seminar; AUD/AEC; Audit Courses / Ability Enhancement Courses (Mandatory), PCCL-Professional Core Course lab, **L-Lecture, P-Practical, T/SDA-Tutorial / Skill Development Activities**(Hours are for Interaction between faculty and students)

Professional elective 3		Open elective -1	
Course Code under 22XXX31X	Course title	Course Code under 22XXX32X	Course title
22XXX321		22XXX331	
22XXX322		22XXX332	
22XXX323		22XXX333	
22XXX324		22XXX334	
22XXX325		22XXX335	

Note:

1. Project Work Phase-1: The project work shall be carried out individually. However, in case a disciplinary or interdisciplinary project requires more participants, then a group consisting of not more than three shall be permitted.

Students in consultation with the guide/co-guide (if any) in disciplinary project or guides/co-guides (if any) of all departments in case of multidisciplinary projects, shall pursue a literature survey and complete the preliminary requirements of the selected Project work. Each student shall prepare a relevant introductory project document, and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, all Guide/s and co-guide/s (if any) and a senior faculty of the concerned departments. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill, and performance in the Question and Answer session in the ratio of 50:25:25.

2. Societal Project: Students in consultation with the internal guide as well as with external guide (much preferable) shall involve in applying technology to workout/proposing viable solutions for societal problems.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide if any, and a senior faculty of the department. The CIE marks awarded, shall be based on the evaluation of Project Report, Project Presentation skill, and performance in the Question and Answer session in the ratio of 50:25:25.

Those, who have not pursued /completed the Societal Project, shall be declared as fail in the course and have to complete the same during subsequent semester/s after satisfying the Societal Project requirements. There is no SEE (University examination) for this course.

3. Internship: Those, who have not pursued /completed the internship, shall be declared as fail in the internship course and have to complete the same during subsequent University examinations after satisfying the internship requirements. Internship SEE (University examination) shall be as per the University norms.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, Guide/co-guide if any, and a senior faculty of the department. The CIE marks awarded for project work phase -1, shall be based on the evaluation of Project Report, Project Presentation skill, and performance in the Question and Answer session in the ratio of 50:25:25.

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IV SEMESTER										
Sl. No	Course	Course Code	Course Title	Teaching Hours /Week		Examination				Credits
				Theory	Practical/ Field work	Duration in hours	CIE Marks	SEE Marks Viva voce	Total Marks	
1	Project	22XXX41	Project work phase -2	--	08	03	100	100	200	18
TOTAL				--	08	03	100	100	200	18

Note:**1. Project Work Phase-2:**

Students in consultation with the guide/co-guide (if any) in disciplinary project or guides/co-guides (if any) of all departments in case of multidisciplinary projects, shall continue to work of Project Work phase -1to complete the Project work. Each student / batch of students shall prepare project document, and present a seminar.

CIE marks shall be awarded by a committee comprising of HoD as Chairman, all Guide/s and co-guide/s (if any) and a senior faculty of the concerned departments. The CIE marks awarded for project work phase -2, shall be based on the evaluation of Project Report, Project Presentation skill, and performance in the Question and Answer session in the ratio of 50:25:25.

SEE shall be at the end of IV semester. Project work evaluation and Viva-Voce examination (SEE), after satisfying the plagiarism check, shall be as per the University norms.

Total Credits $22+18+22+18 = \mathbf{80}$