



**RAMAIAH  
UNIVERSITY**  
OF APPLIED SCIENCES

**ACADEMIC OPERATIONS MANUAL**

# **M. Tech.** Programme

**Faculty of  
Engineering & Technology**

---

**Ramaiah University of Applied Sciences**  
University House, New Bel Road  
M S Ramaiah Nagar, Bengaluru- 560054  
Karnataka, India.

[www.msruas.ac.in](http://www.msruas.ac.in)

# Academic Operations Manual

## M. Tech. Programme

---

### Contents

1. Introduction
2. Ramaiah University of Applied Sciences
3. Faculties, Programmes and Courses of the University
4. Student Admissions -Postgraduate Programmes
  - 4.1 Selection of Students
  - 4.2 Admission of Students
5. Registration of Students
6. Course Delivery
  - 6.1 Course Time Table
  - 6.2 Attendance Records
  - 6.3 Curriculum Development and Approval
  - 6.4 Guidelines for Preparing Module Notes
  - 6.5 Guidelines for Preparing Laboratory Manuals
  - 6.6 Guidelines for Preparing Computer Based Laboratory Manuals
  - 6.7 Review of Module Notes and Laboratory Manuals
  - 6.8 Guidelines for Delivering Lectures
  - 6.9 Guidelines for Delivering Laboratory Sessions
  - 6.10 Guidelines for Delivering Computer Based Laboratory Instructions
  - 6.11 Staff Student Consultative Committee Meeting
  - 6.12 Student/Faculty Feedback and Analysis
7. Examination and Assessment
  - 7.1 Record Keeping and Maintenance of Records
  - 7.2 Examination and Assessment Schedules
  - 7.3 Guidelines for Setting Question Papers and Assignments
  - 7.4 Review of Questions Papers and Assignments
  - 7.5 Conduction of Theory Examinations
  - 7.6 Conduction of Laboratory Examinations
    - 7.6.1 Component 1

7.6.2 Component 2

7.7 Evaluation of Answer Scripts

7.8 Evaluation of Dissertation Work

7.9 External Examiners

8 Subject Assessment Board (SAB)

9 Programme Assessment Board (PAB)

10 Announcement of Results

11 Award of Degree

12 Formats of various Forms

13 Academic Process Chart

## 1. Introduction

Academic Operations Handbook explains

1. Academic Operations that need to be carried out
2. The officers and staff responsible for the Academic Operations
3. The details of the Academic Operations
4. The schedule of the Academic Operations

**Every member of the staff (Academic or Non Academic) involved in Academic operation of the University must be familiar with the contents of this manual.**

## 2. Ramaiah University of Applied Sciences

Ramaiah University of Applied Sciences (RUAS) (Registered as M. S Ramaiah University of Applied Sciences) created by an act in the State of Karnataka, India, came into existence in December 2013. The University is sponsored by Gokula Education Foundation (Medical) (GEF (M)) - a public charitable trust. The University was created by transferring “Ramaiah School of Advanced Studies (1999), Ramaiah College of Hotel Management (1993), Ramaiah College of Pharmacy (1992), Ramaiah Dental College (1991), Ramaiah Ayush Arogyadhama (2006) and Ramaiah Advanced Learning Centre (2012)” hitherto owned by GEF(M).

The University offers student centric degree programmes at Undergraduate, Postgraduate and Doctoral levels. The University programmes are designed to ensure that the graduates of the University are equipped with the theoretical knowledge and skill expected by industry and business. The University has five verticals – **Academic Studies** and **Academic Research**; Sponsored Research; **Training and Lifelong Learning**, **Techno-Centre**- involved in Consultancy, Product Design and Development, and **Entrepreneurship Development**.

The University provides wholistic experience to the students of the University, as the student in addition to his/her academic programme has an opportunity to participate in research, skill development, real life problem solving and entrepreneurship.

The University has Faculties of: Engineering and Technology (FET), Art and Design (FAD), Management and Commerce (FMC), Hospitality Management and Catering Technology (FHMCT), Pharmacy (FPH), Dental Sciences (FDS), Science and Humanities (FSH). Through these faculties, the University offers Undergraduate, Postgraduate and Doctoral Programmes.

The University has created eight Directorates: Student Admission, Student Affairs, Training and Lifelong Learning (TLL), Sponsored Research, Transferrable Skills and Leadership Development, Public Relation and Publicity, International Collaboration and Partnership

Management and Advanced Learning Centre to provide rich all-round experience to the students. Additionally Quality Assurance Cell with primary objective of maintaining standards in academic delivery and assessment, Faculty and Academic Leadership Development Cell and Pedagogy and Digital Learning Initiative Cell are also created to facilitate Teachers to be updated and be competent. More details are available on website.

### 3. Faculties, Programmes and Courses of the University

The following table describes faculties, programmes and courses of the University

S. No.	Faculty	Programme	
1	FET	B. Tech.	<ol style="list-style-type: none"> <li>1. Civil Engineering</li> <li>2. Computer Science &amp; Engineering</li> <li>3. Electrical and Electronic Engineering</li> <li>4. Electronic and Communication Engineering</li> <li>5. Mechanical Engineering</li> <li>6. Automotive Engineering</li> <li>7. Aerospace Engineering</li> </ol>
		M. Tech.	<ol style="list-style-type: none"> <li>1. Automotive Engineering</li> <li>2. Automotive Power Train Design</li> <li>3. Automotive Product Design</li> <li>4. Turbo machinery Design</li> <li>5. Aircraft Design</li> <li>6. Advanced Manufacturing Technologies</li> <li>7. Engineering and Manufacturing Management</li> <li>8. Advanced Machinery Design</li> <li>9. Biomedical Engineering</li> <li>10. Electronics Systems Design Engineering</li> <li>11. Digital Signal and Image Processing</li> <li>12. Signal Processing and Communication Technologies</li> <li>13. VLSI System Design</li> <li>14. Electrical Machinery Design</li> <li>15. Sensors and Control Systems Engineering</li> <li>16. Computer Science and Networking</li> <li>17. Real Time Embedded Systems</li> <li>18. Automotive Electronics</li> <li>19. Civil Structural Design</li> <li>20. Construction Engineering and Management</li> <li>21. Transportation Engineering</li> </ol>

			<ul style="list-style-type: none"> <li>22. Sanitation Engineering and Waste Management</li> <li>23. Machine Learning and Intelligent Systems</li> <li>24. Robotic Engineering</li> </ul>
2	FAD	B. Des.	<ul style="list-style-type: none"> <li>1. Product Design</li> <li>2. Visual Communication</li> <li>3. Fashion Design</li> </ul>
		M. Des.	<ul style="list-style-type: none"> <li>1. Product Design</li> <li>2. Retail and Commercial Design</li> <li>3. Rural Product Design</li> <li>4. Computer Animation and Games Development</li> <li>5. Fashion Design</li> </ul>
3	FMC	MBA	<ul style="list-style-type: none"> <li>1. Marketing Management</li> <li>2. Financial Management</li> <li>3. Human Resources Management</li> <li>4. Operations Management</li> <li>5. Small Business and Entrepreneurship</li> <li>6. Innovation and Entrepreneurship</li> <li>7. *Hospitality Management</li> <li>8. *Pharma Business Management</li> </ul>
		M.Com.	<ul style="list-style-type: none"> <li>1. Accounting and Taxation</li> <li>2. Banking and Financing</li> </ul>
		MHA	<ul style="list-style-type: none"> <li>1. Master of Hospital Administration</li> </ul>
4	FHMCT	BHM	<ul style="list-style-type: none"> <li>1. Bachelor of Hotel Management</li> </ul>
		*MBA Offered by FMC and FHMCT	<ul style="list-style-type: none"> <li>1. *Hospitality Management</li> </ul>
5	FPH	B. Pharm.	<ul style="list-style-type: none"> <li>1. Bachelor of Pharmacy</li> </ul>
		M. Pharm.	<ul style="list-style-type: none"> <li>1. Pharmacognosy</li> <li>2. Pharmaceutical Chemistry</li> <li>3. Pharmaceutics</li> <li>4. Pharmacology</li> <li>5. Pharmacy Practice</li> </ul>
		*MBA Offered by FMC and FPH	<ul style="list-style-type: none"> <li>*Pharma Business Management</li> </ul>
		Pharm. D.	<ul style="list-style-type: none"> <li>2. Doctor of Pharmacy</li> </ul>
6	FDS	BDS	<ul style="list-style-type: none"> <li>1. Bachelor of Dental Surgery</li> </ul>
		MDS	<ul style="list-style-type: none"> <li>1. Oral Medicine and Radiology</li> <li>2. Oral and Maxillofacial Surgery</li> <li>3. Periodontology</li> <li>4. Conservative Dentistry and Endodontics</li> <li>5. Orthodontics and Dentofacial Orthopaedics</li> <li>6. Oral Pathology and Microbiology</li> <li>7. Prosthodontics, Crown and Bridge</li> <li>8. Public Health Dentistry</li> </ul>

			9. Pedodontics and Preventive Dentistry
7	FSH	M.Sc.	<ol style="list-style-type: none"> <li>1. Master of Physics ( Applied Solid State Physics, Optoelectronics, Nuclear Physics and Technology)</li> <li>2. Master of Chemistry ( Analytical Chemistry, Industrial Chemistry, Medicinal Chemistry)</li> <li>3. Master of Mathematics ( Applied Mathematics)</li> </ol>

#### 4. Student Admissions -Postgraduate Programmes

##### 4.1 Selection of Students

1. Director- Admissions is responsible for admission of students to the University
2. Admission Committee consists of Director Admissions and Faculty Members deputed by the Deans of various faculties
3. The Chair of the Admission Committee is the Vice Chancellor
4. Admission Committee selects the students from the list of students declared as qualified in the University approved entrance exam/test or rank list to fill up seats under University quota. The committee selects students through counseling
5. Karnataka State Examination Authority selects students to fill up seats under Government quota
6. Admission Committee also selects eligible foreign students

##### 4.2 Admission of Students

1. Academic Registrars (University, Faculty) and Manager-Admissions (Faculty) are responsible for admission of students, and to keep as well as maintain all records pertaining to admissions
2. Selected students are required to
  - i. Fill the "Admission Form" and submit the original transcripts
  - ii. Pay the specified amount of fee at the Accounts department and obtain the receipt

#### 5. Registration of Students-Postgraduate Programmes

Academic Registrars (University, Faculty) and Manager-Admissions (Faculty) are responsible for registration of students, and to keep as well as maintain all records pertaining to registration.

##### 5.1 Registration for First year

**5.1.1** Students are required to fill and submit the following forms

- i. Course Registration
- ii. Library Registration
- iii. ICT Registration
- iv. Examination and Assessment-Registration
- v. Sports Registration
- vi. Hostel Registration
- vii. Transport- Registration
- viii. Health Centre Registration

**5.1.2** Admission section will issue Induction Kit containing the following Items

- i. University Bag
- ii. University T-shirt
- iii. University Cap
- iv. University ID Card (with Faculty serial number, registration number and University E-mail ID)
- v. Student Handbook
- vi. Course Time Table
- vii. University Pen

Students need to be advised to carry their own laptop and have internet connection.

**5.2 Registration to Second year**

- i. Pay the yearly fees at the Accounts Department
  1. Fill the registration form available with the Manager- Admissions
  2. Manager- Admissions will renew the University ID Card

**5.3 Registration to Fast-Track Scheme**

- i. Details of the Fast-Track scheme are available in Programme Regulations
- ii. Pay the prescribed fee at the accounts department
- iii. Fill the registration form available with the Manager-Admissions

**5.4 Induction for Fresh M. Tech., students**

A student induction committee nominated by the Dean of Faculty is responsible for induction of students. The induction programme includes inauguration, familiarization with University policies and processes, introduction to Staff members of the Faculty and the campus tour. The induction programme is for duration of 3 days, starting with inauguration.



## **6. Programme Delivery**

### **6.1 Time Table**

- 6.1.1** Academic-Registrars (University, Faculty) and Manager-Programme Operations are responsible for maintaining of all records concerned to programme operations including module notes
- 6.1.2** Academic-Registrars (University, Faculty) and Manager-Programme Operations are responsible for preparation of the Module Time Table in coordination with the Heads of Departments. The time table should include the schedule of theory and laboratory classes along with the names of faculty members engaging the classes
- 6.1.3** The Programme Time Table must be made available with Manager-Admissions well in time at the beginning of each batch to distribute it to the students along with induction kit
- 6.1.4** The time table should have the signature of the Academic Registrar (Faculty), concerned Head of the Department (HOD) and the Faculty Dean. In case, HOD's signature is not essential, then it should have other two signatures.

### **6.2 Attendance Records**

- 6.2.1** The Manager-Programme Operations is required to prepare students attendance register for every module (soft copy) and issue the record to the concerned faculty member for recording student attendance in the class
- 6.2.2** Faculty members are suggested to record the attendance of students at the end of every theory and laboratory class conducted. It is preferred to maintain the attendance in digital form
- 6.2.3** Faculty members are required to submit the attendance records to the Manager - Programme Operations soon after the teaching end date (Digital and Hard Copy form or whichever form suggested)
- 6.2.4** Academic Registrar (Faculty) and Manager – Programme Operations are required to apply the student attendance guidelines given in programme regulations for finalizing the attendance and deciding the students' eligibility for attending module examination. The eligibility list is announced before the module examination
- 6.2.5** Only Dean (Faculty) is authorized to condone the attendance under the circumstances outlined in the programme regulations

### **6.3 Curriculum Development and Approval**

- 6.3.1** Academic Programme Planning and Review Committee recommends to the Board of Management on creation/revision of Courses and Programmes and establishment of Departments and Faculties
- 6.3.2** Board of Management approves the offering of Courses and Programmes and establishment of Departments and Faculties
- 6.3.3** The Dean of the Faculty is responsible for formulation of Programme Regulations adhering to the UGC norms
- 6.3.4** The Academic Council of the University will review the Programme Regulations and recommends to Board of Management for approval
- 6.3.5** After the approval, the Dean nominates a Board of Studies (BoS) which is responsible for development of Curriculum
- 6.3.6** The Curriculum should be reviewed internally by a Review Committee nominated by the Dean. BoS is required to update the Curriculum incorporating the appropriate suggestions of the review committee
- 6.3.7** The BoS is required to complete the Curriculum documentation after the internal review and seek opinion of experts from academia and industry on the same and incorporate valid suggestions, if any, to finalize the Curriculum document
- 6.3.8** The Dean presents the Curriculum documents to the Academic Council of the University for approval
- 6.3.9** The Faculty can offer the course upon the approval of the Curriculum by the Academic Council
- 6.3.10** Any changes in the Curriculum needs the approval of the Academic Council

### **6.4 Guidelines for Preparing Module Notes**

- 6.4.1** Each teaching session is for a period of 90 minutes
- 6.4.2** The module notes are prepared to be in sync with the intended learning outcomes
- 6.4.3** Teaching and learning methods are described in the course documents based on intended learning outcomes of the module
- 6.4.4** The lesson plan is prepared as per the table shown below for all the sessions to achieve the intended learning outcomes. However, as a good module leader one should not ignore comprehensive treatment of the module

Class	Date	Day	Time	Topic and Objectives	Teaching and Learning Methods (Mark 'X' appropriately)	
1					Lecture	
2					Demonstrations	
3					Numeracy	
.					Group work	
.					Case Study	
.					Question and Answer	

- 6.4.5 The number of slides per session should be decided judiciously
- 6.4.6 Additional information/details can be provided in the foot note, if required
- 6.4.7 All sketches, derivations, problems and solutions should be included in the notes
- 6.4.8 Appropriate videos and illustrations, as necessary, need to be provided along with the notes
- 6.4.9 Essential information on examination and assessment methods must be provided

#### 6.5 Guidelines for Preparing Laboratory Manuals

- 6.5.1 The duration of each Laboratory session is 3 hours
- 6.5.2 The list of laboratory exercises, to be completed in the module, is required to be prepared
- 6.5.3 Aim of the experiment, experimental setup, procedure for conducting the experiment, data to be tabulated, calculations to be performed, results to be tabulated and characteristics should be highlighted
- 6.5.4 If more than one faculty member is handling a given laboratory, the faculty members handling a given laboratory should jointly prepare the laboratory manual
- 6.5.5 If there is a dedicated tutor assigned to a laboratory, then the tutor is responsible for preparation of the laboratory manual in consultation with the faculty members handling the laboratory
- 6.5.6 Appropriate exercises to be identified for workshop practice and detailed instruction manual needs to be prepared

#### 6.6 Guidelines for Preparing Computer Based Laboratory Manuals

- 6.6.1 The duration of each Laboratory session is 3 hours
- 6.6.2 The list of exercises, to be completed in a module, is required to be prepared

- 6.6.3** Instructions for performing the exercise and the expected output need to be documented
- 6.6.4** If more than one faculty member is handling a given laboratory, the faculty members handling a given laboratory should jointly prepare the laboratory manual
- 6.6.5** If there is a dedicated tutor assigned to a laboratory, then the tutor is responsible for preparation of the laboratory manual in consultation with the faculty members handling the laboratory

### **6.7 Review of Module Notes and Laboratory Manuals**

- 6.7.1** All module notes and laboratory manuals should be reviewed by a subcommittee consisting not less than 3 members nominated by Chairman-BoS and Head- Quality Control
- 6.7.2** All notes are reviewed and approved against module specifications for compliance with topics and learning outcomes.
- 6.7.3** The committee must ensure that the number of slides per session are appropriate
- 6.7.4** Module notes and laboratory manuals will have to be approved only when all the topics given in the module specifications document are covered
- 6.7.5** The faculty member is allowed to teach only if the module notes are reviewed and approved
- 6.7.6** The faculty member is required to submit the approved notes to Manager-Programme Operations at least six working days prior to beginning of the module
- 6.7.7** The notes review and approval form is available with Manager-Programme Operations
- 6.7.8** The Manager-Programme Operations should make the notes available to the admissions section before the commencement of module
- 6.7.9** All module notes, laboratory manual and assignments will also be reviewed by Head - Quality Control

## **6.8 Guidelines for Delivering Lectures**

- 6.8.1** Audio-Visuals and white board should be used for teaching
- 6.8.2** White board should be used for deriving equations and solving numerical problems though the information is available on the slides
- 6.8.3** Drawing of complex sketches on white board may be avoided, use of digitized ones on slides is preferred
- 6.8.4** Relevant videos are to be played wherever required
- 6.8.5** Modern educational technologies and hands on session may be used to make the student understand the concepts and systems
- 6.8.6** Emphasis on knowledge and understanding and development of critical, analytical and problem solving skills of the students should be given
- 6.8.7** Students should be encouraged to interact during the module delivery

## **6.9 Guidelines for Delivering Laboratory Sessions**

- 6.9.1** Audio-Visuals and white board should be used for teaching
- 6.9.2** Aim of the experiments, testing standards, testing procedures, measurements and data recording, errors in measurements, calculations to be performed, tabulation of results, presentation of results and interpretation of results should be explained
- 6.9.3** The purpose of experiments and their practical applications should be emphasized
- 6.9.4** Experimental procedures should be demonstrated
- 6.9.5** Hands-on session for students on experiments should be conducted

## **6.10 Guidelines for Delivering Computer Based Laboratory Sessions**

- 6.10.1** Audio-Visuals and white board should be used for teaching
- 6.10.2** Aim of the exercise, procedure to solve the exercise, standards involved, hardware involved, software involved, models, algorithms, procedures for writing algorithms, codes, executing codes, testing and verification and interpretation of results should be explained
- 6.10.3** Demonstration on how to perform the exercise should be given
- 6.10.4** The purpose of exercise and their practical applications should be emphasized

**6.10.5** Appropriate procedure is to be adopted while delivering computer based modeling and simulation laboratories which involve computer modeling, preprocessing, solving and post processing

#### **6.11 Staff Student Consultative Committee Meeting**

**6.11.1** Student Consultative Committee Meeting is scheduled as per programme regulations

**6.11.2** Staff Student consultative meeting is treated as Formative Assessment of the programme

**6.11.3** Staff student consultative committee meeting is organized by the Academic Registrar (Faculty)

**6.11.4** The Dean of the Faculty chairs the meeting

#### **6.12 Student/Faculty Feedback and Analysis**

**6.12.1** Students' feedback is obtained at the end of teaching week for every module

**6.12.2** The Academic Registrar (Faculty) and Manager-Programme Operations are responsible for obtaining the feedback from students and faculty members and handing over to the office of the Head Quality Control (Academics)

**6.12.3** The feedback analysis report is prepared by Head Quality Control (Academics)

**6.12.4** The student feedback report should be made available to the Dean of the faculty at the time of Staff-Student Consultative Committee Meeting to initiate corrective action, if any

**6.12.5** The feedback analysis report of each of the faculty members should be made available to the faculty appraisal committee by the Head Quality Control (Academics) for the concerned Dean to initiate corrective action, if any

**6.12.6** Faculty members who teach a particular module are required to fill a Faculty Feedback form to express their opinion about the module delivery and the students they taught. The Head Quality Control (Academics) analyses the feedback and prepares a report and makes it available during staff student consultative committee meeting, SAB and PAB as well as during the faculty appraisal to initiate corrective action, if any, by the Faculty Dean

**6.12.7** Students are required to fill the exit feedback form at the end of the course and hand it over to the Manager – Examination and Assessment. The office

of Head Quality Control (Academics) prepares an analysis report and submits it to the Chief of Quality Control for further action

### **6.13 Programme Quality Assessment of the Faculty**

At the end of each academic year overall quality assessment of a Faculty is performed by Head QC (Academics) by taking feedbacks from Students, Academic Faculty, Non-Academic Faculty, Parents of the Students, Alumni, Employers of the Students. Such report is sent to Chief QC (Academics) to present in Programme Quality Assessment Committee meeting.

## **7. Examination and Assessment**

### **7.1 Record Keeping and Maintenance of Records**

**7.1.1** Academic Registrars (University, Faculty), Manager- Examination and Assessment section of faculty are responsible for administration of Examination and Assessment Process

**7.1.2** Academic Registrar(Faculty), and Manager- Examination and Assessment section are responsible for keeping and maintenance of all the records connected with Examination and Assessment till such periods specified in the Programme Regulations/Statutes

### **7.2 Examination and Assessment Schedules**

**7.2.1** Academic Registrars (University, Faculty), Manager- Examination and Assessment section of faculty are required to prepare the examination schedules in consultation with the Dean (Faculty) and communicate to all the members of faculty. The examination and assessment schedules should include dates of written examination, assignment submission, evaluation start and end including review from external examiners, SAB, PAB and announcement of Results.

### **7.3 Guidelines for Setting Assignment and Question Papers**

**7.3.1** All assessments will have two components and the components carry equal weight. Component-1 consists of an assignment, a presentation on the assignment and a laboratory examination (if there is laboratory content). The component 2 is for written examination conducted at the end of the module.

**7.3.2** It is the responsibility of the module leader/s to set the question papers for assignments as well as written examination and conduct the examination.

**7.3.3** Component 1 will have an overall weight of 50%; the question must be set as per the module specifications.

**7.3.4** The module leader should prepare scheme of evaluation

**7.3.5** An assignment must be set with the following guidelines:

1. The assignment shall have 3 parts namely- Part-A, Part-B and Part-C.
2. Part-A

Module leader will give a statement with appropriate preamble based on the topics he /she would have discussed during the course of teaching the module. The student is required to develop an essay/ debate with critical reviews and discussions.

- a. Part – A shall carry 30% weight
- b. This part shall have no sub questions and clear marking scheme shall be provided based on expectations of the module leader
- c. Number of pages shall be limited to 3 A4 pages with a font size of 11 and 1.5 line spacing
- d. Students can use diagrams, pictures, tables and equations
- e. Any units used must adhere to SI units conventions
- f. References must be cited appropriately

The purpose of Part-A of the assignment is to train the students on technical writing. The student must demonstrate the abilities of critical and analytical thinking, and review of quality literature.

3. Part-B and Part-C

Part-B and Part-C together carry 70% weight. The questions under Part-B and Part-C are to assess module learning outcomes. The module leader while formulating the questions must try to connect between Part-B and Part-C. For example, in Part-B, if module leader has asked to develop an analytical model of a system/process and Part-C can be an application/numerical which can verify the model. If the Part-B and Part-C cannot be linked at all, then they can be independent questions.

4. Submission guidelines and clear marking scheme shall be provided.
5. The assignment report is limited to a maximum of 35- A4 pages.
6. Students are required to submit the assignment on or before the due date to Examination and Assessment Section in the prescribed format along with the plagiarism check report using University provided Software - Turnitin



7. The assignment must be neatly word processed and must have the following elements:
  - a. Over view of the assignment – a brief discussion.
  - b. Body of the assignment – as per the assignment problem statement and submission guidelines.
  - c. Summary and conclusion specific to the assignment in a concise manner. In addition, it is also necessary that the students state whether the learning outcomes have been met and benefits derived by solving this assignment.
  - d. Citation of the references and listing of references is an important and essential part of the assignment report and project thesis. The method of referencing must be strictly followed as per the referencing scheme followed by MSRUAS ( refer to University website)
  - e. In case the students read from various resources such as books, journals, etc. to understand the module concepts in greater details, they must be listed in the Bibliography as per the scheme followed by MSRUAS
8. The review panel shall review the assignment problem statements as per the above guidelines.
9. Module leader shall have clarity on expectations from students and they shall be made clear to the reviewers at the time of review of the assignment. These expectations must be conveyed to the students while discussing the assignment in the class.
10. Module leader, along with the assignment problem statement shall also prepare the concise model solutions
11. The module leader should prepare scheme of evaluation

#### **7.4 Review of Questions Papers and Assignments**

- 7.4.1** Board of Examiners (BoE) in the module area should review Assignment and Written Examination question papers
- 7.4.2** The Chair of BoE should chair all such review and review committee should have at least 3 members
- 7.4.3** While reviewing the papers, the members should ensure that the set questions test the learning outcomes, are of right standard and ensure expected marks distribution
- 7.4.4** After question papers are reviewed and all such papers will be in the custody of the Module leader

- 7.4.5** The reviewers should review the scheme of evaluation and approve it as it becomes the guiding document for evaluation of answer scripts
- 7.4.6** The review team should maintain confidentiality of the examination question papers. In the event of loss and / or compromise on confidentiality of the examination question papers, the complete team shall be held responsible and will be liable for disciplinary action as per the decisions of the Disciplinary Committee.

### **7.5 Conduction of Written Examination**

- 7.5.1** Examinations are to be conducted as per the schedules announced by the office of the Academic Registrar (Faculty)
- 7.5.2** The Module leader prints the question papers, carries them to examination hall, and checks the candidates ID cards / admit cards, distributes the question papers to the candidates and supervises the examination. If more supervisors are required, he/she may contact the Chairman BoE and draw the help of their colleagues for supervision of examination
- 7.5.3** The supervisor is responsible for filling up examination related documents if any and submit them to Examination and Assessment section
- 7.5.4** Students are required to use the University Supplied Stationery for writing examinations. The stationery will be supplied by the Examinations and Assessment office
- 7.5.5** All written answer scripts and assignment scripts will be in the custody of the module leader till the completion of evaluation process

### **7.6 Conduction of Presentation on Assignment and Laboratory Examinations**

#### **7.6.1 Presentation on Assignment**

Module leader shall hold a presentation session for each of the students who submits the assignment. Student shall make a presentation based on his/her assignment work for duration not more than 15 minutes. This is to ensure that the student has really worked on his/her assignment. The presentation shall be assessed for 10% of total marks allotted for the assignment.

#### **7.6.2 Laboratory Examination**

If there is laboratory work in the given module, a laboratory examination of 90 minutes duration shall be conducted and assessed for 10% of total marks allotted

for the assignment. The laboratory examination is conducted based on the laboratory exercises prescribed in the module.

## **7.7 Evaluation of Answer scripts**

- 7.7.1** The module leader will act as the first examiner and evaluates all the assignments and written examination answer scripts
- 7.7.2** The Scheme of evaluation is the guiding document for all the assessments
- 7.7.3** The module leader (First Examiner) needs to complete evaluation of answer scripts as per the evaluation schedule and prepare the marks list. The first examiner hands over the evaluated answer scripts along with the marks list to Examination and Assessment Section. The first examiner uses red ink pen for evaluation of answer scripts
- 7.7.4** The Second Examiner moderates all the answer scripts using green ink pen.
- 7.7.5** If the variation between the marks awarded by the first examiner and the second examiner lies within +/- 3 marks, then the marks allotted by the first examiner is considered final.
- 7.7.6** If the variation is more than +/-3 marks then both the examiners should resolve the issue in consultation with the Chairman BoE.
- 7.7.7** The written examination and assignment scripts should be given to each student as feedback, only after moderation and approval by Dean of the Faculty. The answer scripts need to be collected back by the module leader.
- 7.7.8** The module leader sends the finalized marks along with Post Module Assessment Report (PMAR) after feedback to the students to the Examination and Assessment section, along with properly arranged evaluated answer scripts, assignments and other documents for each of the student. There ends his/her responsibility as examiner
- 7.7.9** The procedure for evaluation of Elective modules and Mandatory modules is described in the respective module specifications

## **7.8 Evaluation of Project / Dissertation work**

### **7.8.1 Group Project**

There are two components for assessment in this module:

#### **Component - 1: 50% weight**

Presentation: 25 marks

Exhibition: 25 marks

A panel of three examiners including one of them being project supervisor will assess students for interim and final presentation, viva-voce and demonstration as per the assessment Sheet available on I portal.

**Component - 2: 50% weight**

Project Report will be evaluated by the Project Supervisor and all the reports are reviewed by a Second Examiner

**7.8.2 Dissertation**

There are two components for assessment in this module

**Component - 1: 50% weight**

A panel of three examiners including one of them being academic supervisor will assess students for interim and final presentation, viva-voce and demonstration as per the assessment Sheet available on I portal.

**Component - 2: 50% weight**

Dissertation will be evaluated by Three Examiners with one of them being Project Supervisor

**7.9 External Examiners**

One External Examiner per programme is recommended. The Dean of the Faculty appoints External Examiners. The External Examiners review 10% of the total number of evaluated answer scripts of a given module and record their observations on standard of question papers and evaluation. This is normally done before the SAB. A report is submitted to Dean of the Faculty for initiating corrective actions, if any, for the subsequent batches.

**8. Subject Assessment Board (SAB)**

- 8.1 Three SAB meetings will be held during the course as per the schedule
- 8.2 Dean of the faculty Chairs SAB Meeting
- 8.3 An Observer nominated by the Vice Chancellor will be present during the SAB meeting
- 8.4 Heads of Departments (Chair of BoE) and Academic Registrar (Faculty), External examiner(s) are the members

- 8.5 Other faculty members can also be invited
- 8.6 Examination and Assessment section prepares the reports for SAB
- 8.7 The SAB report contains the module wise statistical data- Average, Standard Deviation, Statistical Distribution (graph) of Marks
- 8.8 The Board performs the analysis of data provided on students' performance, standard of examination and assignment papers, consistency in evaluation of answer scripts and variation in standards across the modules offered by a department
- 8.9 The External Examiners present their observations on class performance, standard of assessment methods and procedures
- 8.10 The Board may suggest action points for continuous improvement of academic quality for subsequent batches
- 8.11 All SAB committee members are required to sign on SAB sheets
- 8.12 The minutes of the Board meeting are recorded and maintained by the Academic Registrar (Faculty)
- 8.13 After SAB approval, the awarded marks cannot be changed under any circumstances

## **9. Programme Assessment Board (PAB)**

- 9.1 A PAB meeting is held at the end of the Programme
- 9.2 Dean of the faculty chairs PAB Meeting
- 9.3 An Observer nominated by the Vice Chancellor will be present during the PAB meeting
- 9.4 Heads of Departments (Chair of BoE) and Academic Registrar (Faculty), External examiners are the members
- 9.5 Other faculty members can also be invited
- 9.6 Examination and Assessment section prepares the reports for PAB
- 9.7 The reports contain module wise marks awarded, average marks scored and the marks distribution for each student
- 9.8 The Board analyses the distribution, points out anomalies, if any, and tries to find out the root cause and prepares a corrective action plan.
- 9.9 An opportunity is given to aggrieved students, if any, to approach PAB if they are not convinced about the redressal by the student grievances and redressal committee regarding academic performance. The student grievances and redressal

committee refers such cases to PAB. The PAB can hear and recommends appropriate action if the grievances are found to be genuine. The decision of PAB is final in such matters

9.10 All the members are required to sign on PAB sheets

9.11 The minutes of the Board meeting are recorded and maintained by the Academic Registrar (Faculty)

## **10. Announcement of Results**

After the approval by the PAB, the Academic Registrar (Faculty) announces the Achievement of Learning of the students on notice boards.

## **11. Award of Degree**

The University organizes Convocation at end of academic programme. During convocation the degrees are conferred to the successful graduands. The date, venue, time, dress code will be announced well in advance by the Academic Registrar (University). Students will be conferred their Degree by the Vice –Chancellor or his / her nominee (normally the Dean of the concerned Faculty) during the convocation ceremony.

## **12 Formats of various Forms**

- 12.1 Annual Academic Calendar
- 12.2 Admission Form
- 12.3 Registration Form
- 12.4 Module Time Table
- 12.5 Attendance Register
- 12.6 Lecture Notes Slide
- 12.7 Laboratory Instructions Slide
- 12.8 Module/Laboratory Notes Review Form
- 12.9 Student Feedback Form
- 12.10 Faculty Feedback Forms
- 12.11 Student Feedback Analysis Report
- 12.12 Written Examination Question Paper
- 12.13 Assignment
- 12.14 Question Paper Review Form

- 12.15 Assignment Review Form
- 12.16 University Answer Scripts Format with Marking Sheet
- 12.17 Group Project Evaluation Form
- 12.18 Interim Dissertation Presentation Evaluation Form
- 12.19 Final Dissertation Evaluation Form
- 12.20 Dissertation Evaluation Form
- 12.21 Elective Module Evaluation form
- 12.22 Mandatory Module Evaluation form
- 12.23 Students Marks Entry Sheet
- 12.24 External Examiner's Report
- 12.25 Results Announcement
- 12.26 Marks Card
- 12.27 Degree Certificate

### 13 Academic Process Chart





