



RAMAIAH
UNIVERSITY
OF APPLIED SCIENCES

ACADEMIC OPERATIONS MANUAL

B.Sc.(Hons)-PCMSCsE
Programme

Faculty of
Mathematical and Physical Sciences
Peenya Campus

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Academic Operations Manual

B. Sc. (Hons) Programme

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1. Introduction

Academic Operations Handbook explains:

1. Academic Operations that need to be carried out
2. Officers and staff responsible for Academic Operations
3. Details of Academic Operations
4. Schedule of Academic Operations

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

2. Ramaiah University of Applied Sciences

Ramaiah University of Applied Sciences (RUAS) 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 skills 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 holistic 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), Mathematical and Physical Sciences (FMPS) and Life and Allied Health Sciences (FLAHS) .Through these faculties, the University offers Undergraduate, Postgraduate and Doctoral Programmes.

3. Faculties, Programme and Courses of the University

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

Sl. No.	Faculty	Department	Programmes	Specialization
1	FET	AAE	B.Tech.	Aerospace Engineering
2		AAE	B.Tech.	Automotive Engineering
3		CE	B.Tech.	Civil Engineering
4		CSE	B.Tech.	Computer Science and Engineering
5		EEE	B.Tech.	Electrical Engineering
6		ECE	B.Tech.	Electronics and Communication Engineering
7		MME	B.Tech.	Mechanical Engineering
8		AAE	M.Tech.	Aircraft Design
9		AAE	M.Tech.	Automotive Engineering
10		CE	M.Tech.	Construction Engineering and Management
11		CE	M.Tech.	Structural Engineering
12		CE	M.Tech.	Environmental Sanitation and Waste Management
13		CE	M.Tech.	Transportation Engineering
14		CSE	M.Tech.	Data Science and Engineering
15		CSE	M.Tech.	Machine Learning and Intelligent Systems
16		ECE	M.Tech.	VLSI and Nanotechnology
17		EEE	M.Tech.	Power Electronics and Drives
18		MME	M.Tech.	Advanced Machinery Design
19		MME	M.Tech.	Manufacturing Technologies and Engineering Management
20		MME	M.Tech.	Robotic Engineering
21		Research Programmes	M.S. (By Research)	In the above mentioned specializations
22			M.Phil.	
23			Ph.D.	
24	FAD	PD	B.Des.	Product Design
25		FD	B.Des.	Fashion Design
26		PD	M.Des.	Product Design
27		FD	M.Des.	Fashion Design
28		Research Programmes	M.S. (By Research)	In the above mentioned specializations
29			M.Phil.	
30		Ph.D.		
31	FMPS		B.Sc.(Hons)	Physics Chemistry Mathematics Statistics Computer Science Electronics
32		Physics	M.Sc.	Applied Solid State Physics, Optoelectronics, Nuclear Physics and Technology
33		Chemistry	M.Sc.	Industrial Chemistry, Analytical Chemistry, Organic Chemistry
34		Mathematics	M.Sc.	Applied Mathematics
35		Research Programmes	M.S. (By Research)	In Physics, Chemistry, Mathematics
36			M.Phil.	
37			Ph.D.	
38	FMC	Commerce	B.Com.(Hons)	Accounting and Finance
39		Management Studies	BBA	
40		Management Studies	MBA	Marketing Management
41			MBA	Human Resource Management
42			MBA	Operations Management

43			MBA	Financial Management	
44			MBA	Small Business and Entrepreneurship	
45			MBA	Business Analytics	
46			MBA	Banking and Financial Services	
47			MBA	Pharma Business Management	
48			MBA	Hospitality Management	
49		Commerce	M.Com.	Banking and Finance	
50			M.Com.	Accounting and Taxation	
51		Research Programmes	M.S. (By Research)	In the above mentioned specializations	
52			M.Phil.		
53			Ph.D.		
54	FPH		B.Pharm.		
55			Pharm.D.		
56			M.Pharm.		Pharmacognosy
57			M.Pharm.		Pharmaceutical Chemistry
58			M.Pharm.		Pharmaceutics
59			M.Pharm.		Pharmacology
60		M.Pharm.	Pharmacy Practice		
61		Research Programmes	M.S. (By Research)	In the above mentioned specializations	
62			M.Phil.		
63			Ph.D.		
64	FHMCT		BHM		
65		Research Programmes	M.S. (By Research)	In the above mentioned specializations	
66			M.Phil.		
67		Ph.D.			
68	FLAHS	Biotechnology	B.Sc.(Hons)	Biotechnology	
69		Food Technology	B.Sc.(Hons)	Food Processing and Technology	
70		Allied Health Sciences	B.Sc.(Hons)	Dialysis Therapy Technology	
71			B.Sc.(Hons)	Medical Radiology and Imaging Technology	
72			B.Sc.(Hons)	Operation Theatre Technology	
73			B.Sc.(Hons)	Cardiac Care Technology	
74			B.Sc.(Hons)	Optometry	
75			B.Sc.(Hons)	Sports and Exercise Science	
76		Hospital Administration	MHA	Master of Hospital Administration	
77			MPH	Master in Public Health	
78		Biotechnology	M.Sc.	Biotechnology	
79			M.Sc.	Molecular and Cellular Biology	
80		Food Technology	M.Sc.	Food Science and Technology	
81			M.Sc.	Sports Nutrition and Dietetics	
82		Research Programmes	M.S. (By Research)	In the above mentioned specializations	
83			M.Phil.		
84	Ph.D.				
85	FDS		BDS		
86			MDS	Prosthodontics and Crown & Bridge	
87			MDS	Conservative Dentistry and Endodontics	
88			MDS	Periodontology	
89			MDS	Orthodontics and Dentofacial Orthopedics	
90			MDS	Oral and Maxillofacial Surgery	
91			MDS	Oral & Maxillofacial Pathology and Oral Microbiology	
92			MDS	Oral Medicine and Radiology	
93			MDS	Pediatric Dentistry	
94			MDS	Public Health Dentistry	
95		Research Programmes	M.S. (By Research)	In the above mentioned specializations	
96	M.Phil.				
97	Ph.D.				

4. Student Admissions -Undergraduate Programme

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. 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-Undergraduate Programme

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 of First Semester and Lateral Entry Students

- 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 of the respective Faculty will issue Induction Kit containing essential items.

The academic team will ensure access to Laboratory Manuals and any other related academic resources for the semester. Students may carry their own laptop and have internet connection.

- i. Name of the identified proctor assigned to the student(from respective Faculty)
- ii. University e-mail id of the student(From Data Centre Team)

5.2 Registration to “Even Semesters”

- i. Students have to fill the registration form available with the office of Academic Registrar (Faculty)

5.3 Registration to “Odd semester” other than 1st Semester

- i. Only eligible students are permitted to register
- ii. Students are required to meet their proctor and take advise on registration of courses
- iii. Students are required to pay the fees in the accounts section
- iv. Fill the registration form available with the office of Academic Registrar (Faculty)
- v. Manager-Admissions will issue a semester kit containing-
 1. New ID Card from the University
 2. Semester Time Table
 3. Semester Course Syllabus
 4. Semester Laboratory Manuals

At the end of second semester the office of the Academic Registrar (Faculty) announces the list of eligible students (promoted students list) for the next odd semester.

5.4 Induction for First Semester 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 normally for a duration of 3 days, starting with inauguration.

6. Course Delivery

6.1 Semester Time Table

- Academic-Registrars (University, Faculty) and Manager-Programme Operations are responsible for maintaining of all records concerned to programme operations. Academic-Registrars (University, Faculty) and Manager-Programme Operations are

responsible for preparation of the Semester Time Table in coordination with the Heads of Departments. The time table should include the schedule of theory and laboratory classes for the entire semester along with the names of identified faculty members

- The time table should have the signatures of the Academic Registrar (Faculty), Concerned Head of the Department and the Dean of Faculty. In case, HoD's signature is not essential, then it should have other two signatures.

6.2 Attendance Records

- The Manager-Programme Operations (Faculty) is required to prepare students attendance register for every theory and laboratory course (soft copy) for issuance to the concerned faculty member for recording student attendance
- Faculty members are suggested to record the attendance of students at the end of every theory session, laboratory class and term tests. It is preferred to maintain the attendance in digital form
- Faculty members are required to submit the attendance records to the Manager-Programme Operations(Faculty) well before the start of Semester End Examinations (Digital and Hard Copy form or whichever form suggested)
- 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 semester end examination. The eligibility list is announced before the commencement of the semester end examination
- HoD is authorized to condone the attendance under the circumstances outlined in the programme regulations

6.3 Curriculum Development and Approval

- Academic Programme Planning and Review Committee recommends to the Board of Management on creation/revision of Courses, Programme and establishment of Departments and Faculties
- Board of Management approves the offering of Courses and Programme and establishment of Departments and Faculties
- Dean is responsible for formulation of Programme Regulations adhering to the regulatory bodies
- The Academic Council of the University will review the Programme Regulations and recommend to Board of Management for approval

- After the approval, the Dean nominates a Board of Studies (BoS) which is responsible for development of Curriculum
- 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
- The BoS 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
- The Dean presents the Curriculum documents to the Academic Council of the University for approval
- The Faculty can offer the programme upon the approval of the curriculum by the Academic Council
- Any subsequent changes in the curriculum document need the approval of the Academic Council

6.4 Guidelines for Preparing Laboratory Manuals

- The duration of each Laboratory session is 3 hours
- The list of laboratory exercises, to be completed in a semester, is required to be prepared
- 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
- Instruction on assessment of each exercise should be provided
- If more than one faculty member is handling a given laboratory sessions, such faculty members should jointly prepare the laboratory manual
- 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 Guidelines for Preparing Computer Based Laboratory Manuals

- The duration of each Laboratory session is 3 hours
- The list of exercises, to be completed in a semester, is required to be prepared
- Instructions for performing the exercise and the expected output need to be documented
- Instruction on assessment of each exercise should be provided

- If more than one faculty member is handling a given laboratory sessions, such faculty members should jointly prepare the laboratory manual
- 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

6.6 Guidelines for Delivering Laboratory Sessions

- 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
- The purpose of experiments and their practical applications should be emphasized
- Experimental procedures should be demonstrated
- Hands-on session for students on experiments should be conducted
- Instructions for preparation of laboratory test reports (Record writing) should be provided

6.7 Guidelines for Delivering Computer Based Laboratory Sessions

- 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
- Demonstration on how to perform the exercise should be given
- The purpose of exercise and their practical applications should be emphasized
- Instructions for preparation of laboratory test reports (Record writing) should be provided
- Appropriate procedures are to be adopted during the laboratory sessions that involve computer based modelling, preprocessing, solving and post processing

6.8 Staff Student Consultative Committee Meeting

- Staff-student consultative committee meeting should be held for each programme half way through regular semester
- Staff Student consultative committee meeting should be convened separately for students of each year of study
- Staff Student consultative meeting is treated as Formative Assessment of the programme
- Staff student consultative committee meeting is organized by the Academic Registrar (Faculty)
- The Dean of the Faculty chairs the meeting

- One class Representative per section be nominated/elected by the Academic Registrar (Faculty) during the first week of every semester
- During the meeting, students experience on academic issues, teaching and learning support and student amenities should be discussed. Actions arising from this meeting should be recorded and subsequently acted upon.

6.9 Student Feedback and Analysis

- Students' feedback is obtained twice a semester. Once during the mid of the semester and the other at the end of the semester
- The Head Quality Control (Academics) is responsible for obtaining the feedback from students
- The feedback analysis report is prepared by Head Quality Control (Academics)
- The midterm student feedback report should be made available to the Course Leader and HOD
- The feedback analysis report of each of the faculty members should be made available to the faculty appraisal committee, and to the concerned
- Students are required to fill the exit feedback form at the end of the programme and hand it over to the Manager – Examination and Assessment

7. Examination and Assessment

7.1 Record Keeping and Maintenance of Records

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

7.2 Examination and Assessment Schedules

- 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.

7.3 Conduction of Theory Examinations

- Examinations are to be conducted as per the schedules announced by the office of the Academic Registrar (Faculty)
- The examination Superintendents will be appointed by the Academic Registrar (Faculty) for smooth conduct of the examinations. They allot supervisors in consultations with the respective HODs.
- The Course leader prints the question papers, carries them to examination hall, and hands them over to Superintendents before the commencement of examination.
- Supervisors checks the candidates ID cards / admit cards, distributes the answer booklets and question papers to the candidates and supervises the examination.
- The supervisor is responsible for filling up of examination related documents, if any, and submit them to Examination and Assessment section
- Students are required to use the University supplied stationery for writing tests and examinations. The stationery will be supplied by the Examinations and Assessment office
- All written answer scripts and assignment scripts will be in the custody of the course leader till the completion of the evaluation process

7.4 Conduction of Laboratory Examinations

Component 1:

- Each laboratory exercise be evaluated for 25 marks – 70% marks for record submission (conduction, calculation, pre-knowledge checking) and 30% marks for viva voce
- After completion of all the exercises, the average marks be scaled to 20 marks (Component 1a)
- One mock test after the completion of laboratory exercises will be carried out for 25 marks and scaled to 5 marks (Component 1b)
- Sum of component 1a and 1b is the CE marks for the laboratory course
- The laboratory records are required to be reviewed by the External examiner at the time of semester end laboratory examination and prepare a report on his/her observations on evaluation of laboratory records and such reports be sent to the HoD

Component 2:

- The semester end laboratory examination be conducted for a duration of 3 hours and for a maximum of 50 marks
- Depending on the time required to complete an exercise, number of exercises to be given to a student must be decided by the examiners (Not to exceed 2 exercises)
- 30% marks should be allocated for viva voce examination
- The total awarded marks be scaled to 25 marks

The first examiner must add marks awarded for component-1 and component-2 and submit the marks list to the Examination and Assessment section after completion of the examination.

7.5 Evaluation of Answer scripts

- The course leader evaluates all the answer scripts of Mid-term Tests, Assignments and Semester End Examinations

8. Announcement of Results

- The Academic Registrar (Faculty) announces the semester results of the students on notice boards. A copy of the overall performance report of the student will be sent to the parents or guardians
- Examination and Assessment office issues transcripts (marks cards) to students
- The successful students are promoted to next semester and failed students are required to follow the procedure outlined in the programme regulations
- Such of students who wish to opt for re-evaluation of their answer scripts in a given course can do so by paying prescribed fees as per the schedule announced. Re- evaluation is not applicable for laboratory examinations. The re-evaluation marks will be confirmed by the HoD of the Faculty. Re-evaluation of answer scripts will be done by an examiner (other than first and second examiner for that course) identified by the HOD

The procedure is repeated for all the semesters till the given batch of students graduate

9. Award of Degree

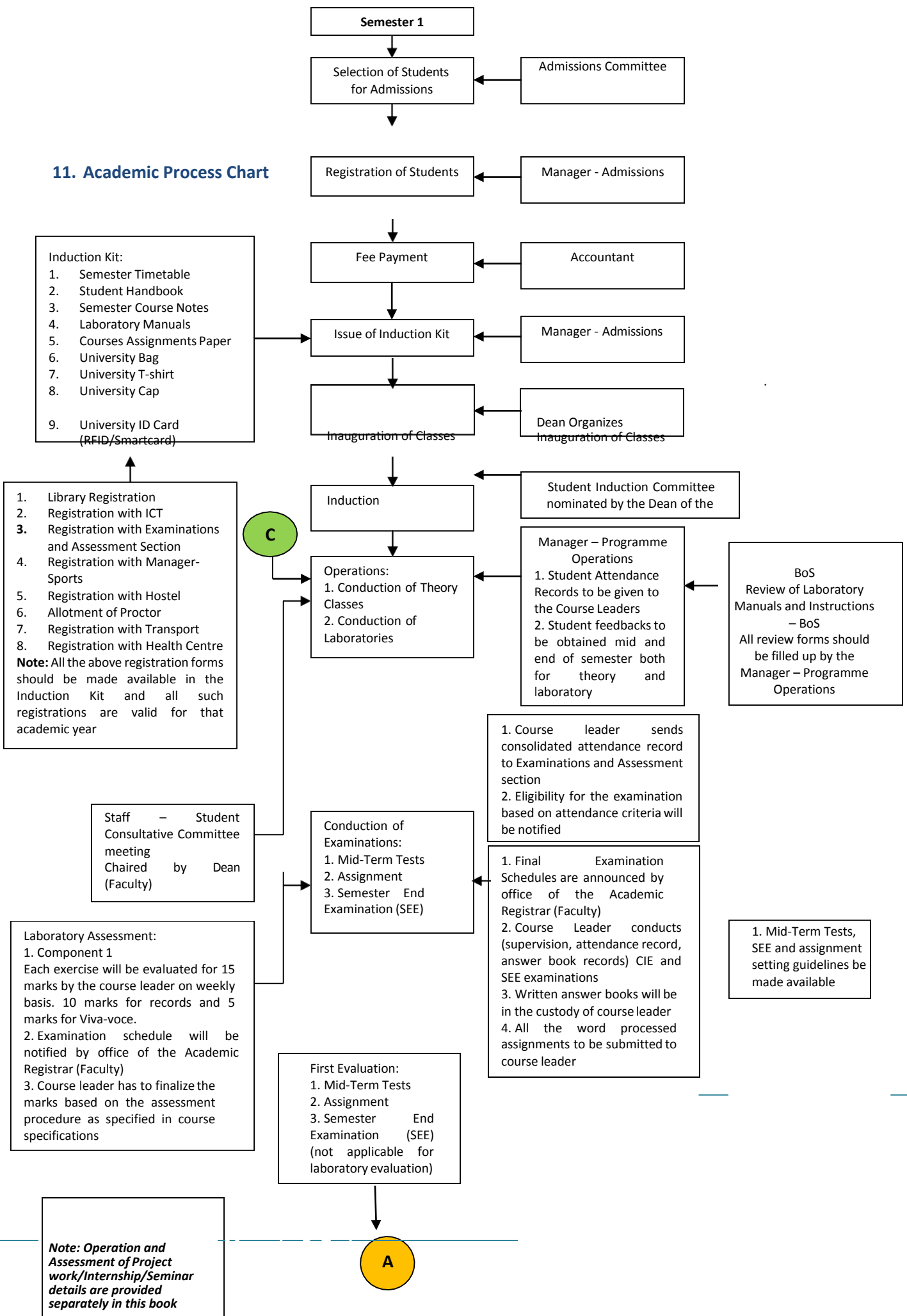
At the end of each academic year, the University organizes convocation. During convocation the degrees are conferred to the successful graduands. The date, venue, time, dress code will be announced well in advance by the Academic Registrar (University). Students will be conferred their Degree by the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

10. List of various Forms

1. Annual Academic Calendar
2. Admission Form
3. Registration Forms
4. Semester Time Table
5. Attendance Register
6. Laboratory Instructions Slide
7. Student Feedback Form
8. Student Feedback Analysis Report
9. Term Test Question Paper
10. Assignment
11. Semester End Examination Question Paper
12. University Answer Scripts Format with Marking Sheet

13. Mid Term Project Evaluation Form
14. Final Project Evaluation Form
15. Project Report Evaluation Form
16. Seminar/Internship Evaluation form
17. Students Marks Entry Sheet
18. Results Announcement
19. Student Overall Performance Report
20. Re-evaluation Application Form
21. Marks Card
22. Degree Certificate

11. Academic Process Chart



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