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(Applicable for the batches admitted from the AY: 2024-25)

Ph.D. Programme
Student Handbook

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ADITYA UNIVERSITY

Aditya Nagar, ADB Road, Surampalem - 533 437

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1. Preamble

Aditya University is a State Private University established under the Andhra Pradesh Private Universities Act, 2016. It has evolved from the renowned Aditya Engineering College in Surampalem, Kakinada District, Andhra Pradesh. Committed to delivering quality higher education that meets global standards, Aditya University is located in Surampalem, Andhra Pradesh. It was founded in the academic year 2001-02 under the guidance of Aditya Academy, Kakinada. The university is recognized by the University Grants Commission (UGC) under Sections 2(f) and 12(B) of the UGC Act, 1956.

Our doctoral programs are designed to develop advanced research skills, promote critical thinking, and equip scholars to become leaders in academia, industry, and beyond. The Ph.D. programs at Aditya University are at the cutting edge of engineering research, inspiring scholars to engage in pioneering research that expands the horizons of engineering knowledge. With access to world-class facilities and guidance from accomplished faculty, our doctoral candidates are well-prepared to make impactful contributions to their respective fields.

These Regulations, known as the "Regulations for the Degree of Doctor of Philosophy (Ph.D.) 2024" of Aditya University, Surampalem, Kakinada District, Andhra Pradesh State, India outline the entrance requirements and procedures leading to the Ph.D. degree.

2. Programs offered:

The University offers the following Ph.D. programs in both Full-time and Part-time modes:

Name of the School	Ph.D. Program offered
School of Engineering	Ph.D. in Civil Engineering
	Ph.D. in Electrical & Electronics Engineering
	Ph.D. in Mechanical Engineering
	Ph.D. in Electronics & Communication Engineering
	Ph.D. in Computer Science & Engineering
	Ph.D. in Petroleum Engineering
	Ph.D. in Mining Engineering
	Ph.D. in Agricultural Engineering
	Ph.D. in Mathematics
	Ph.D. in Physics
	Ph.D. in Chemistry
	Ph.D. in English

3. Eligibility Criteria

3.1 Eligibility Criteria for admission into Ph.D. in Engineering:

Candidates who have completed a 2-year/4-semester master's degree program in Engineering after a 4-year / 8-semester bachelor's degree program or a qualification declared equivalent to the master's degree in Engineering by the corresponding statutory regulatory body, with at least 60% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution, shall be eligible for admission to the Ph.D. program (Full-time).

A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / differently abled, Economically Weaker Section (EWS) and other categories of candidates.

3.2 Eligibility Criteria for direct admission into Full-Time Ph.D. in Engineering after bachelor's degree

Provided that a candidate seeking admission for a full-time Ph. D after a 4-year/8-semester a bachelor's degree program should have a minimum of 75% marks or its equivalent grade. A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC/ST/OBC (non-creamy layer)/Differently Abled, Economically Weaker Section (EWS). Candidates admitted to the Ph.D. program with a bachelor's degree are required to complete 24 credits from courses offered in the relevant field of specialization at the postgraduate level, in addition to the 6 credits required through the mandatory coursework (Research Methodology, Research & Publication Ethics and Research Seminar-I & II) of the Ph.D. program. Scholars are required to complete 18 credits during the first year of joining. Only after the successful completion of the coursework will they be eligible for the stipend.

3.3 Eligibility Criteria for admission into Ph.D. in Engineering after a Master's in Computer Application

Candidates seeking admission to the Ph.D. program (full-time or part-time) after completing a 2-year (4-semester) Master's degree in Computer Applications (MCA) must have secured a minimum of 60% marks or an equivalent grade. A relaxation of 5% marks or equivalent grade may be granted to candidates belonging to SC/ST/OBC (non-creamy layer)/Differently Abled categories, and those from the Economically Weaker Section (EWS). Candidates admitted to the Ph.D. program with an MCA degree are required to complete 24 credits from courses offered in the relevant field of specialization at the postgraduate level, in addition to the 6 credits mandated under the Ph.D. coursework, which includes Research Methodology, Research and Publication Ethics, and Research Seminar I & II.

3.4 Eligibility Criteria for admission into Ph.D. in Sciences (Mathematics, Physics, Chemistry and English):

Candidates who have completed a 2-year / 4-semester master's degree program after a 3-year bachelor's degree program or qualifications declared equivalent to the master's degree by the corresponding statutory regulatory body, with at least 55% marks in aggregate or its equivalent grade in a point scale wherever grading system or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of educational institutions, shall be eligible for admission to the Ph.D. program (Full-time). A relaxation of 5% marks or its equivalent grade may be allowed for those belonging to SC / ST / OBC (non-creamy layer) / Differently Abled, Economically Weaker Section (EWS) and other categories of candidates.

Table 1: Eligibility Criteria

S.No.	Name of the School	Name of the Department	Ph.D. Program offered	Eligibility criteria for admission
1.	School of Engineering	Department of Civil Engineering	Ph.D. in Civil Engineering	M. Tech / B. Tech or equivalent Program
		Department of Electrical & Electronics Engineering	Ph.D. in Electrical & Electronics Engineering	
		Department of Mechanical Engineering	Ph.D. in Mechanical Engineering	
		Department of Electronics & Communication Engineering	Ph.D. in Electronics & Communication Engineering	
		Department of Computer Science & Engineering	Ph.D. in Computer Science & Engineering	
		Department of Petroleum Technology	Ph.D. in Petroleum Engineering	
		Department of Mining Engineering	Ph.D. in Mining Engineering	
		Department of Agricultural Engineering	Ph.D. in Agricultural Engineering	
		Department of Mathematics	Ph.D. in Mathematics	PG Program in Mathematics or equivalent
		Department of Physics	Ph.D. in Physics	PG Program in Physics or equivalent
		Department of Chemistry	Ph.D. in Chemistry	PG Program in Chemistry or equivalent
		Department of English	Ph.D. in English	PG Program in English or equivalent.

a. Criteria for admission into Ph.D. Program (Part-time) for faculty

Candidates satisfying the eligibility conditions noted under sections 3.1 or 3.3 or 3.4 above can be admitted as Part-time candidates through the entrance test, as per the following order of priority. Admission into the Part-time category will be made based on service seniority in the respective categories.

Faculty working in Postgraduate and Professional colleges having completed at least two years of service. This provision is also applicable to Faculty teaching Physics, Chemistry, Mathematics and Humanities in professional colleges.

or

Faculty working in Polytechnic / Government or private Junior or degree Colleges having completed at least four years of service.

b. Criteria for admission into Ph.D. Program (Part-time) for Professionals from Industry/ Research institutes

Minimum 2 Years of experience after the master's degree in Engineering with at least 60% marks in aggregate or its equivalent grade in a point scale wherever grading system is followed or equivalent qualification from a foreign educational institution accredited by an assessment and accreditation agency which is approved, recognized or authorized by an authority, established or incorporated under a law in its home country or any other statutory authority in that country to assess, accredit or assure quality and standards of the educational institution.

A minimum of 5 years of experience in the industry after a 4-year/8-semester bachelor's degree program with at least 60% or its equivalent grade of 6.0 on a point scale is eligible for admission into the Ph.D. program. Candidates admitted to the Ph.D. program with a bachelor's degree are required to complete 24 credits from courses offered in the relevant field of specialization at the postgraduate level, in addition to the 6 credits required through the mandatory coursework (Research Methodology, Research & Publication Ethics, and Research Seminar-I & II) of the Ph.D. program.

4. Duration of the Program

4.1 Full-time scholars:

Regular Ph.D (after Master's):

The Ph.D. program will have a minimum duration of three (3) years, including coursework for Ph.D. (Full-time), and a maximum duration of five (5) years from the date of admission. The stipend will be provided for a period of three (3) years only.

A maximum of an additional two (2) years can be given through a process of re-registration as per the Ordinance of the Aditya University; provided however, that the total period for completion of a Ph.D. program should not exceed seven (7) years from the date of admission into the Ph.D. program. Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. program in such cases should not exceed nine (9) years from the date of admission into the Ph.D. program.

Direct Ph.D (After B.E/B.Tech):

The Ph.D. program will have a minimum duration of four (4) years and a maximum duration of six (6) years from the date of admission. However, the stipend will be provided only for a period of three (3) years, starting from the second year of admission.

A maximum of an additional two (2) years can be given through a process of re-registration as per the Ordinance of the Aditya University; provided however, that the total period for completion of a Ph.D. program should not exceed eight (8) years from the date of admission into the Ph.D. program. Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. program in such cases should not exceed Ten (10) years from the date of admission into the Ph.D. program.

4.2 Part-time scholars:

The Ph.D. program for Part-time students will have a minimum duration of four (4) years, including coursework, and a maximum duration of six (6) years from the date of admission.

A maximum of an additional two (2) years can be given through a process of re-registration as per the Ordinance of the Aditya University; provided however, that the total period for completion of a Ph.D. program should not exceed eight (8) years from the date of admission into the Ph.D. program. Provided further that, female Ph.D. scholars and Persons with Disabilities (having more than 40% disability) may be allowed an additional relaxation of two (2) years; however, the total period for completion of a Ph.D. program in such cases should not exceed ten (10) years from the date of admission into the Ph.D. program.

4.3 The scholar must submit the "No Dues" form to obtain the original certificates.

4.4 Female Ph.D. Scholars may be provided Maternity Leave / Child Care Leave for up to 240 days in the entire duration of the Ph.D. program.

5. Procedure for Admission

The admission process will be conducted in accordance with the criteria established by Aditya University, Surampalem. These criteria will be in line with the guidelines and regulations issued by the University Grants Commission (UGC) and other relevant statutory authorities. The process will also adhere to the reservation policies of the Central/State Government, as applicable and updated from time to time. The following is the step-by-step procedure for the admission process:

5.1 Notification of Admission

- Aditya University, Surampalem (AUS) will notify for the Ph. D admission in various disciplines twice a year (July & January admission) on the university website.
- The notification will include information on eligibility, entrance test details, and important dates.

5.2 Application Submission

- Interested candidates must submit the Ph.D. application form through the University's online admission portal before the deadline.
- All required documents must be uploaded along with the application.

5.3 Eligibility Verification

- The University verifies the application, and the eligible candidate will be called for the Entrance test. Candidates who are qualified in **UGC-NET, UGC-CSIR NET, DBT-NET, ICMR-NET, ICAR-NET, AP-SET**, or have a **valid GATE score** are exempted from the Entrance Test. However, such candidates must attend the interview.

5.4 Entrance Test

- Eligible applicants (except exempted categories) must appear for an online entrance test in the applied discipline, consisting of 100 multiple-choice questions (total 100 marks). The syllabus is available on the University website.
    - 25% of the questions will be from Research Methodology
    - 75% of the questions from Program-Specific Courses
- Duration: 2 hours
- No negative marking
- Qualifying Marks: 50%

5.5 Interview

- Candidates who qualify in the entrance test, as well as those exempted from it, shall be called for an interview (carrying 100 marks) conducted by the Department Research Committee (DRC).
- The Interview Panel shall comprise the DRC Convenor, the Head of the Department, and two to three senior faculty members from the department.

Interview Evaluation Criteria:

Parameter	Marks
(a) Problem Statement	20
(b) Technical Knowledge	40
(c) Paper Publications	20
(d) Academic Excellence	20

5.6 Final Selection

- The final merit list is prepared based on the performance in the Interview, and the list of selected candidates will be published on the University website.

5.7 Provisional Admission

- The Dean (Research & Consultancy) issues the Provisional Admission Order to the selected candidates during the admission.
- Candidates must pay the prescribed fees and submit the original documents/transcripts to R&C cell.

5.9 Allocation of Supervisor

The following is the procedure for allotting a Ph.D. supervisor at Aditya University.

- Candidates are encouraged to contact potential supervisors directly to discuss research interests and the possibility of supervision before the interview process.
- Candidates are informed to submit up to three supervisor preferences to assist in the selection process during the admission.
- The allotment of a supervisor to the candidate is as follows
  - i) The allocation of a supervisor is subject to availability, based on the number of candidates that can be assigned to each supervisor during the session. This information will be published on the University website prior to admission.
  - ii) If a student provides three preferences and the supervisor's allocation capacity permits, the candidate will be assigned to their first preference. If the first preference is not feasible, the second or third preference will be considered based on the research area.
  - iii) If the maximum limit of three preferred supervisors has been reached, the research committee will assign a supervisor based on the candidate's research area. It is not mandatory for the allocation of a supervisor to be based on the candidate's preferences.
  - iv) This process will be continuously monitored by the DRC-Convenor and Head of the department in consultation with R&C cell and the recommendations of the

allotment of supervisors shall be submitted to R&C cell. After thorough verification in R&C cell, the final allotment of supervisors shall be released.

5.10 Confirmation of Admission

- After the allocation of Supervisor/Co-Supervisor, the candidate must report to the assigned Supervisor/Co-Supervisor and submit a one-page report outlining the proposed research work along with the joining report to the R&C Cell.
- The Dean (Research & Consultancy) will then issue the Admission Confirmation Order.

6. Allocation of Research Supervisor / Co-Supervisor

6.1 Permanent faculty members working as Professors/Associate Professors/Assistant Professors at Aditya University with at least one year of post-Ph.D. experience and a minimum of three research publications in peer-reviewed or refereed journals will be recognized as Research Supervisors.

6.2 Allocation of Co-Supervisor from Academic Institution:

A Co-Supervisor may be allotted to a scholar based on his/her request, subject to fulfilment of any of the following criteria:

i. The institution faculty member is associated with must hold an NIRF rank equal to or below 200 to ensure academic excellence.

ii. The faculty members who have established research collaboration or engagements with the supervisor/research scholar, as demonstrated by previous or existing collaborations, publications, and/or funded projects.

However, the Research Committee's decision shall be final in the allocation of Co-Supervisor.

6.3 For Ph.D. scholars working in Central government / State government research institutions/ Industry whose degrees are given by Higher Educational Institutions, scientists in such research institutions who are equivalent to Professor / Associate Professor / Assistant Professor can be recognized as co-supervisors.

6.4 Co-Supervisors from within the same department or other departments of the University may be permitted with the approval of the competent authority. Visiting / Adjunct Faculty members shall not act as Research Supervisors and can only act as co-supervisors.

In case of interdisciplinary / multidisciplinary research work, if required, a Co-Supervisor from outside the Department / School / University / Research Institutions may be appointed.

6.5 An eligible research supervisor in the category of Professor / Associate Professor / Assistant Professor can guide up to eight (8)/six (6) / four (4) Ph.D. scholars, respectively.

S. No	Designation	Maximum Number of Scholars Permitted
1.	Professor	8
2.	Associate Professor	6
3.	Assistant Professor	4

6.6 Faculty members with less than three years of service before superannuation shall not be allowed to take new research scholars under their supervision. However, such faculty members can continue to supervise Ph.D. scholars who are already registered until superannuation and as a co-supervisor after superannuation, but not after attaining the age of 70 years.

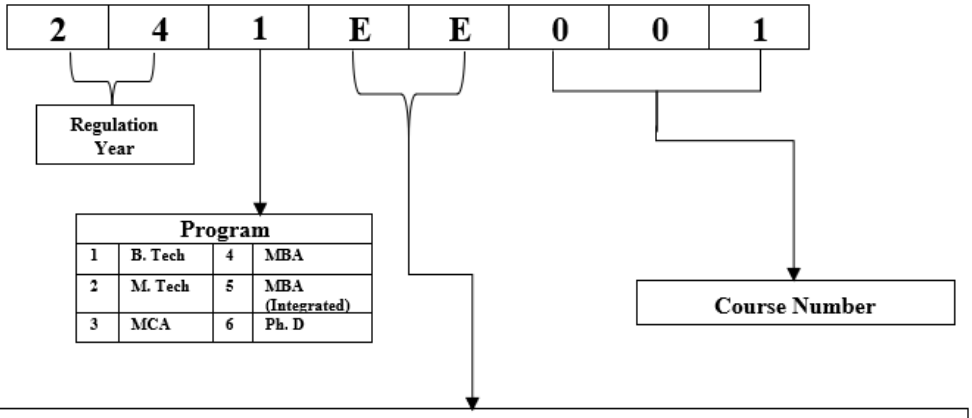
7. Course Work

- The credit requirement for the Ph.D. coursework is a minimum of 12 credits including the courses on 'Research Methodology' and 'Research and Publication Ethics' for 2 credits each. These courses can be completed through MOOCs. The candidate must complete two domain-specific courses of 3 credits each, recommended by the respective Department Research Committee (DRC).
- The candidate is required to present two research seminars in addition to completing the coursework, typically within the first year of the program.
    - The first seminar must be conducted before the end of the first semester and should introduce the proposed research work.
    - The second seminar must be held after the completion of coursework or before the end of the second semester and should focus on the detailed research proposal. Each research seminar will carry a credit weightage of one credit.
- The content for the domain-specific courses can be customized / drawn from the PG syllabus to suit the requirements of the scholars and are to be recommended by the respective Supervisor / Co-Supervisor and duly approved by DRC. Registration and the required course work shall be completed within a maximum of one year from the date of admission.
- It may be extended for one more year under special circumstances with the prior recommendation from DRC and approval from Dean (R&C). A Ph.D. scholar must

obtain a minimum of 50% marks or its equivalent grade in the UGC 10-point scale in each course to be eligible to continue in the program and submit his / her thesis.

7.1 Course Code Template

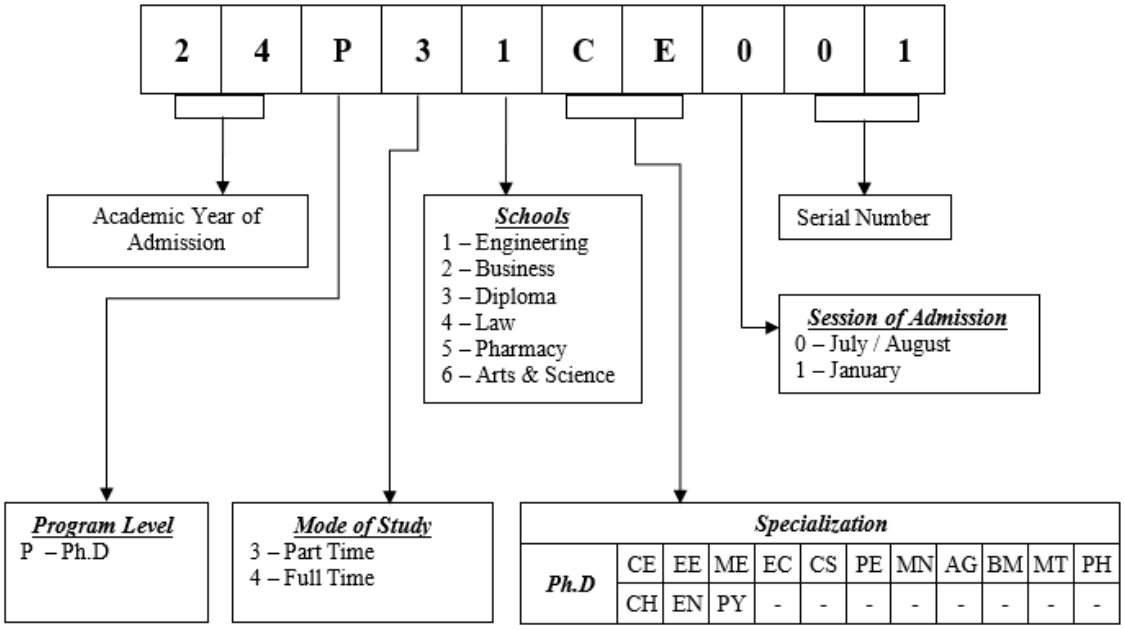
Each course is identified by a unique Course Code consisting of eight alphanumerical characters. The first two numerals indicate the regulation year, third numeral indicates the program, the next two alphabets reflect the course offering department, and the rest of the three numerals indicate a running course number



Course Offering Departments			
EN	English	**IT**	Information Technology
MA	Mathematics	**MN**	Mining Engineering
PH	Physics	**PT**	Petroleum Technology
CH	Chemistry	**AE**	Agricultural Engineering
PE	Physical Education	**AI**	Artificial Intelligence and Machine Learning
CE	Civil Engineering	**MO**	MOOC's
EE	Electrical and Electronics Engineering	**AC**	Audit/Mandatory Course
ME	Mechanical Engineering	**UC**	University Level Course
EC	Electronics and Communication Engineering	**MS**	Management Studies
CS	Computer Science and Engineering	**MC**	Computer Applications

8. Roll Number Template

A roll number is a unique identification number assigned to students, it's typically used for administrative purposes, including tracking academic performance, exam registration, and identification. A roll number consists of ten alphanumerical characters, the first two numerals indicate the year of admission, third alphabet indicates the Program level, the fourth numeral indicates the mode of study, fifth numeral indicates the school, the next two alphabets indicate the specialization, eight numerical number indicates the session of admission, and the last two numerals indicate the serial number.



PROGRAM CODE & SPECIALIZATION

Code	Specialization	Code	Specialization
CE	Ph.D. - Civil Engineering	AE	Ph.D. - Agriculture Engineering
EE	Ph.D. - Electrical and Electronics Engineering	CA	Ph.D. - Computer Applications
ME	Ph.D. - Mechanical Engineering	BM	Ph.D. - Business Management
EC	Ph.D. - Electronics and Communication Engineering	MT	Ph.D. - Mathematics
CS	Ph.D. - Computer Science and Engineering	PH	Ph.D. - Physics
PE	Ph.D. - Petroleum Engineering	CH	Ph.D. - Chemistry
MN	Ph.D. - Mining Engineering	EN	Ph.D. – English
PY	Ph.D. - Pharmaceutical Sciences		

9. Guidelines and Leave Policy for Full-Time Scholars

9.1 The following are the guidelines for Ph.D. full-time scholars:

i. A full-time Ph.D. scholar shall be present at the University from 9:30 a.m. to 4:20 p.m. on all working days.

ii. Full-time Ph.D. scholars must conduct their research regularly under the guidance of their supervisor(s) without interruption during their assistantship.

iii. A full-time Ph.D. scholar is assigned with a workload of 10 periods per week in teaching and learning process.

9.2 Casual leave and Academic leave Policy:

i. A full-time Ph.D. scholar will be entitled to casual leave for 12 days per academic year. The leave may be granted to the scholar by the Head of Department concerned on the recommendation of the Supervisor.

ii. Six (6) academic leaves may be granted to attend Seminars/Conferences per year to present research papers, with the permission of Head of Department concerned on the recommendation of the Supervisor.

iii. Leave beyond 12 days in an academic year may be granted to a Research Scholar in exceptional cases, by the Head of the Department concerned, subject to the following conditions: (i) the leave beyond 12 days will be without Scholarship, and (ii) such an extension of up-to additional 12 days will be granted only once during the program of the Scholar.

iv. The research scholars will be eligible for leaves as per university leave rules/rules of the organization awarding assistantship/Scholarship.

9.3 Vacation Policy:

Research scholars who have completed two semesters are eligible to avail for a one-week vacation during the summer.

9.4 Monthly Progress Review and Fellowship Continuation

For Full-Time Ph.D. scholars, the following provisions are proposed to be incorporated in the Ph.D. Regulations – 2024 and Ph.D. Regulations – 2025:

1. Full-Time Ph.D. scholars shall submit a monthly progress report in the prescribed format, duly certified by the Research Supervisor.
2. The monthly progress of the scholar shall be assessed by the Research Supervisor as either Satisfactory or Unsatisfactory.
3. If a scholar receives an Unsatisfactory assessment in the monthly progress review for three consecutive months, the fellowship/stipend shall be suspended with effect from the subsequent month. The scholar may become eligible to receive the fellowship/stipend again upon submission of a satisfactory explanation and a favorable recommendation from the Research Supervisor, subject to the approval of the Dean (Research & Consultancy).
4. During the period of suspension of the fellowship/stipend, the scholar shall continue to pursue research work and comply with all academic and research requirements prescribed by the University.
5. The suspension of the fellowship/stipend shall not affect the scholar's Ph.D. registration, and the scholar shall continue to pursue research work in accordance with all applicable University regulations.

10.Research Committees and its Functions

There will be two types of committees. One is the Department Research Committee (DRC) and the other is the Doctoral Advisory Committee (DAC).

10.1 The DRC shall consist of a convenor, one external member from IITs/NITs/state universities, the scholar's respective supervisors, and 3 to 4 internal members from the department. The DRC convenor shall be appointed by the Dean (R&C) in consultation with the respective Head of the Department. The DRC convenor shall be responsible for the following Ph.D.-related activities:

i. Organizing and evaluating Research Seminar-I and Research Seminar-II for each scholar, in collaboration with the HoD and DRC members.
ii. Coordinating the registration of coursework for each scholar through their respective supervisor(s) and verifying the alignment of domain-specific courses with the scholar's research area.
iii. Conduct the Research Review Meeting (s) of each scholar in consultation with HoD and the members of DAC.
iv. Conduction of Pre-talk in consultation with HoD.
v. Submission of list of reviewers for the thesis evaluation in consultation with HoD.
vi. Conduction of Viva-Voce in consultation with HoD.

10.1 There shall be a Doctoral Advisory Committee (DAC) for each Ph.D. scholar. DAC shall consist of the research supervisor of the Ph.D. scholar and two members who have expertise in the area of research (in case of interdisciplinary research, one of the faculty shall be appointed from other department) appointed by the Vice Chancellor. Supervisor of the candidate shall be the Convener of DAC committee. DAC committee shall have the following responsibilities:

i. To review the research proposal and finalize the topic of research.
ii. To guide the Ph.D. scholar in carrying out the study, design, and methodology of research and approve the course(s) that he/she may have to do.
iii. To periodically review (Research Review Meeting(s)) and assist in the progress of the research work of the Ph.D. scholar.

10.2 In each semester, a Ph.D. scholar shall appear before the DAC to present and submit a detailed report on the progress of his / her work for evaluation and further guidance. A similarity index of up to 10%, excluding published works, calculated using an anti-plagiarism software may be allowed for the report submitted by scholar. The DAC

shall submit its recommendations along with a copy of Ph.D. Scholar's progress report to the HOD. DRC Convenor will consolidate all the reports and submit to the Dean (R&C) who shall forward the same to the Examination Committee for approval. A copy of such recommendations shall also be provided to the Ph.D. scholar.

10.3 Failure to submit two consecutive half-yearly progress reports will entail cancellation of Ph.D. registration of the scholar.

10.4 In case the progress of the Ph.D. scholar is unsatisfactory, the DRC shall record the reasons for the same and suggest corrective measures. If the Ph.D. scholar fails to implement these corrective measures, the DRC may recommend, with specific reasons, the cancellation of the registration of the Ph.D. scholar from the Ph.D. program.

11. Change of Topic/Research Area

11.1 Application for change of Topic/research area should be submitted with the recommendations of Supervisor(s) along with abstract which will be examined by the DRC. Based on the recommendations of DRC, change of topic may be considered.

11.2 Change of Topic is permitted only once in the Ph.D. program. The submission of thesis is permitted only after two years, from the date of change of topic.

11.3 Change of topic is permitted within 2 years for full-time scholars and 3 years for part-time scholars from the completion of course work. However, the stipend will be given for a total period of 3 years only.

11.4 If the candidate is permitted to avail change of topic, then the candidate has to attend minimum two DAC meetings after the date of approval for change of topic.

12. Change of Supervisor(s)

12.1 Change of Supervisor / Co-Supervisor may be permitted by the recommendations of DRC (Convenor) and Dean (R&C).

12.2 Change of Supervisor is permitted in unforeseen circumstances only with the permission of the Vice-Chancellor.

12.3 A change of supervisor is permitted only after one year from the date of admission.

12.4 For a change of supervisor, the scholar must submit an application form with signatures from both the current and new supervisors.

12.5 Request for change of Supervisor / Co-Supervisor is permitted only once in the Ph.D. program.

12.6 Submission of thesis is permitted only after one year from the date of request for change of Supervisor / Co-Supervisor.

12.7 Request for change of Supervisor / Co-Supervisor will not be permitted after 2 years for Full-time and 3 years for part-time program from date of admission.

12.8 If a research scholar requests for allotment of co-supervisor, it may be done with the approval of the Vice-Chancellor.

12.9 If a supervisor leaves the University within one year of the scholar's registration or before Seminar II is completed, a new supervisor shall be appointed. In other cases, the original supervisor may continue as a Co-Supervisor along with the newly appointed supervisor, subject to approval by the AUS and the submission of a no-objection certificate from their current organization.

13.Change of Ph.D. Registration Mode from Full-Time to Part-Time

A Full-Time Ph.D. scholar who secures regular employment during the Ph.D. programme may apply for conversion of registration from Full-Time mode to Part-Time mode, subject to the approval of the Hon'ble Vice-Chancellor and fulfillment of the following eligibility criteria.

Eligibility Criteria

1. The scholar shall satisfy all eligibility requirements prescribed for admission under the Part-Time Ph.D. category.
2. The scholar shall have obtained regular employment in a recognized organization.
3. The scholar shall have successfully completed the prescribed coursework (12 credits for Regular Ph.D. scholars and 30 credits for Direct Ph.D. scholars admitted after B.Tech./MCA) and Research Seminar–I & Research Seminar–II.
4. The scholar shall have completed a minimum of one year of research work with satisfactory progress, as certified by the Research Supervisor. Requests submitted before the completion of one year from the date of admission to the Ph.D. program shall not be considered and shall be rejected.

Documents Required

1. Prescribed application form for conversion from Full-Time to Part-Time Ph.D. registration, duly recommended by the Research Supervisor, DRC Convenor, and Head of the Department.
2. Copy of the Appointment Order and Joining Report issued by the employer.
3. No Objection Certificate (NOC) from the employer permitting the scholar to pursue the Ph.D. programme on a Part-Time basis.

Approval Process

The request for conversion shall be reviewed by the DRC Convenor and forwarded through the Dean (Research & Consultancy) for approval by the Hon'ble Vice-Chancellor.

Conditions After Conversion

1. The scholar shall be governed by all regulations applicable to Part-Time Ph.D. scholars.
2. The period of registration shall be counted from the original date of registration as a Full-Time scholar. However, the scholar shall fulfill the minimum registration period prescribed for Part-Time Ph.D. scholars, i.e., four years from the date of initial registration.
3. The scholar shall continue to comply with all prescribed progress review and reporting requirements.
4. Conversion from Full-Time to Part-Time registration shall normally be permitted only once during the tenure of the Ph.D. programme.

14. Anti-plagiarism policies

The Dean (R&C) will conduct a plagiarism check using approved software and provide a "Plagiarism Check Certificate" along with the Similarity Index Report. The Similarity Index will include flag checking and AI-generated content, with a permissible limit of up to 10%, excluding published works. The scholar will be permitted to submit the Ph.D. thesis only after meeting these requirements.

15. Pre-Submission of the Thesis:

15.1 Candidate should have

i. Completed the course work requirement successfully.
ii. Completed the research work and certified by DAC.

iii. Completed three review meetings successfully for full-time Ph.D. and four review meetings for part-time Ph.D.

iv. Published at least two papers in the area of research in SCI / Scopus Journals having impact factor and one international conference paper (Indexed in Scopus) as first author.

v. ***Full-time and part-time Ph.D. scholars seeking early thesis submission (up to six months in advance) must fulfill additional research achievements beyond the minimum eligibility requirements. These may include high-quality publications in reputed journals (such as those published by IEEE, ACM, ASME, ASCE, or equivalent in non-engineering domains), granted patents, or received best paper awards in international journals / Conference of repute. Final decision shall be taken by the Vice-Chancellor.***

vi. Pay the University Fee as prescribed, with required fine (if any).

15.2 The paper(s) published prior to the admission into Ph.D. program shall not be counted for fulfilling the requirements.

15.3 Research papers authored by the candidate, supervisor, and co-supervisor (if any) only will be considered. Any deviation from this can be accepted only after prior approval.

15.4 A letter from the scholar should be submitted through the supervisor(s) for arrangements of pre-talk. Synopsis reports (5 copies) and a draft copy of the Ph.D. thesis (1 copy) have to be submitted to the Dean (R&C) along with a request letter for the pre-talk, for forwarding the same to the Chairperson (BOS) for conducting the pre-talk.

15.5 Pre-talk should be arranged in the University premises as an open talk.

15.6 The quality of the work is to be adjudged by the DRC in the review meeting and pre-talk. Recommendations of DRC shall be forwarded to the Dean (R&C).

15.7 The recommendation from the committee and Dean(R&C) shall be made available to the candidate.

15.8 Candidate has to submit the thesis as per the recommendations within a maximum period of 3 months from the date of Pre-talk.

16. Process for Thesis Submission:

16.1 On the recommendation of DRC, the scholar will be required to submit the Ph.D. thesis to Dean (R&C) in the specified format with all suggested modifications included (comments obtained during pre-talk / presentation).

16.2 A panel consisting of 9 experts having designation of Associate Professor and above and research standing in the relevant field/branch of the Ph.D. work, will be proposed by supervisor to the Vice-Chancellor. The experts should be drawn from the universities/institutions that are within top 200 ranks of NIRF at the time of thesis submission.

16.3 Candidate has to submit the following documents along with Ph.D. thesis.

i. Anti-Plagiarism approval letter issued by the Dean (R&C) before Pre-talk and before final submission.

ii. Synopsis of the Thesis (5 copies) and one soft copy of the same.

iii. Ph.D. thesis (5 copies) along with National and International Journal Papers published by the candidate (to be included in thesis), If research paper is yet to be published, publication acceptance letter has to be included.

iv. No dues certificate

v. Letter from the candidate with necessary recommendations from the Supervisor(s)

vi. Sealed cover with the panel of the 9 Examiners (with affiliation and contact details) as recommended by the Supervisor(s).

vii. Photostat copy of examination fee receipt for processing the thesis.

16.4 The Vice-Chancellor will finalize three examiners from the panel of 9 examiners to whom the thesis will be sent for evaluation after obtaining their consent.

16.5 The approved examiners will be approached, along with a copy of thesis, to seek their consent.

16.6 The Ph.D. examiners are expected to give their evaluation reports with their recommendation in a prescribed format within 10 weeks of the receipt of the thesis.

16.7 The recommendations and the evaluation reports from all the examiners will be placed before the Vice-Chancellor for further course of action.

16.8 The suggestions given by the examiners will be passed on to the candidate through his / her supervisor. The candidate will be required to submit the final version of thesis in the required format, incorporating all the suggestions, both in hard copy as well as soft copy.

16.9 The candidate through Supervisor and Co-Supervisor (if any) has to submit a letter that comments / suggestions made by the examiners (if any) are incorporated into the Ph.D. thesis.

16.10 If the Vice-Chancellor finds the recommendations and the evaluation reports from all the examiners satisfactory, the date of the final Viva-Voce examination will be decided in consultation with the Viva-Voce examiner.

16.11 In case, the report(s) and recommendation of two of the three examiners are favourable, then the scholar would be recommended for Viva-voce by the Vice-Chancellor.

16.12 If two Examiners reject the thesis, the candidate shall revise and re-submit it within one year. Such cases will be again referred to DRC for due recommendations, followed by routine procedure.

16.13 However, if the report(s) and the recommendation from three examiners are not favourable, then the thesis will be rejected and the Ph.D. degree will not be awarded.

16.14 The candidate may, however, be allowed to Re-register to continue the Ph.D. work on the same topic and under the same Supervisor(s) for a minimum period of one year

16.15 The candidate shall submit a fresh thesis within two years, subject to the conditions specified in Section 2, and the thesis will be evaluated again following the normal evaluation process

16.16 One of the three examiners will be appointed as examiner for the final Viva-Voce examination by the Vice Chancellor. If the appointed examiner is unable to conduct Viva-Voce, then, the Vice-Chancellor can select another member to conduct the Viva-Voce.

16.17 Once the thesis is accepted, the candidate will be required to defend his / her Ph.D. work in an open viva-voce examination.

16.18 On the successful completion of the final Ph.D. viva-voce examination and evaluation process the report shall be submitted to Vice- Chancellor for approving the award of Ph.D. degree to the candidate.

16.19 After the approval of Vice- Chancellor, the award of Ph.D. degree would be announced, and a provisional degree certificate would be issued to the scholar.

16.20 The final degree will be awarded in the Convocation.

17. Depository with INFLIBNET:

Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree, an electronic copy of the Ph.D. thesis shall be sent to the INFLIBNET within a period of thirty days as per the guidelines.

17. Curriculum for Coursework

Ph.D. Course Work

The credit requirement for the Ph.D. course work is a minimum of 12 credits including the courses on 'Research Methodology' and 'Research and Publication Ethics' for 2 credits each. The candidate must complete two domain-specific courses of 3 credits each, recommended by the respective Department Research Committee (DRC). These courses can be completed through MOOCs.

The candidate must present two research seminars before the completion of course work, typically within the first year. The first research seminar shall be before the end of first semester on introduction to the proposed research work, and the second seminar shall be before the end of the second semester or after the completion of course work on the research proposal, as per the format provided. Each research seminar will have one credit weightage. The course structure is provided in Table 1, and the list of domain-specific courses is presented separately for each department.

Table 1: Course Structure

S. No.	Course Code	Name of the Course	Credit (s)
1	246UC001	Research Seminar -I	1
2	246UC002	Research Seminar -II	1
3	246UC003	Research Methodology	2
4	246UC004	Research and Publication Ethics	2
5	-	Domain Specific Course -I	3
6	-	Domain Specific Course -II	3
Total			**12**

Department of Civil Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246CE001	Advanced Concrete Technology
2	246CE002	Finite Element Analysis
3	246CE003	Experimental Techniques and Instrumentations
4	246CE004	Structural Health Monitoring
5	246CE005	Techniques of Material Characterization
6	246CE006	Pavement Analysis and Design
7	246CE007	Advanced Highway Materials
8	246CE008	Computational Techniques in WRE
9	246CE009	Ship Hydrodynamics
10	246CE010	Advanced Water and Wastewater Treatment
11	246CE011	Solid and Hazardous Waste Management
12	246CE012	Advanced Reinforced Concrete Design
13	246CE013	Earthquake Resistant Design of Buildings
14	246CE014	Soil Exploration and Field Testing
15	246CE015	Soil Properties and Behavior
16	246CE016	Highway Traffic Analysis and Design
17	246CE017	Geometric Design of Transportation Facilities
18	246CE018	Free Surface Flow
19	246CE019	Hydraulics of Alluvial Rivers
20	246CE020	Environmental Legislation
21	246CE021	Air and Noise Pollution Control Engineering
22	246CE022	Emerging Contaminants in Water and Wastewater
23	246CE023	Theory of Engineered Cementitious Composites
24	246CE024	Geosynthetics and Reinforced Soil Structures

Department of Electrical and Electronics Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246EE001	Electrical Machine Modeling and Analysis
2	246EE002	Intelligent Control Techniques in Electric Drives
3	246EE003	Power Converter Technologies
4	246EE004	Digital Control Systems
5	246EE005	Electric Vehicles & Drives
6	246EE006	Power System Optimization
7	246EE007	Modelling and Control of Sustainable Energy System
8	246EE008	Power System Dynamics and Control
9	246EE009	Intelligent Control Systems
10	246EE010	Control Systems Components
11	246EE011	Power Electronic Converters
12	246EE012	Smart Grid
13	246EE013	Soft Computing Techniques and Applications
14	246EE014	Linear control Theory
15	246EE015	Estimation and Adaptive Control
16	246EE016	Optimal and Robust Control
17	246EE017	Advanced Power Electronic Converters

Department of Mechanical Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246ME001	Measurements in Thermal Engineering
2	246ME002	Gas Turbines and Jet Propulsion
3	246ME003	Energy Conservation & Waste Heat Recovery
4	246ME004	Heating, Ventilation and Air-Conditioning
5	246ME005	Convective Heat Transfer
6	246ME006	Renewable Sources of Energy
7	246ME007	Design of Heat Exchangers
8	246ME008	Combustion, Emissions and Environment
9	246ME009	Alternative Fuels
10	246ME010	Cryogenic Engineering
11	246ME011	Solar Energy Technologies
12	246ME012	Advanced Fuel Cell Technologies
13	246ME013	Advanced I.C. Engines
14	246ME014	Optimization Techniques & Applications
15	246ME015	Finite Element Method in Heat Transfer Analysis
16	246ME016	Solar Photovoltaics: Principles, Technologies & Materials
17	246ME017	Advanced Mechanics of Solids
18	246ME018	Mechanical Vibrations and Condition Monitoring
19	246ME019	Analysis And Synthesis of Mechanisms
20	246ME020	Experimental Stress Analysis
21	246ME021	Advanced Mechanical Design
22	246ME022	Advanced machining and micromachining processes
23	246ME023	Advanced Manufacturing Process
24	246ME024	Automation in Manufacturing
25	246ME025	Control of Robotic System
26	246ME026	Leading Edge Additive Engineering

S. No.	Course Code	Name of the Course
27	246ME027	Fracture Mechanics
28	246ME028	Failure Analysis and Design
29	246ME029	Artificial Intelligence and Machine Learning for Mechanical Systems
30	246ME030	Advanced FEM and Simulation Techniques
31	246ME031	Data Analytics
32	246ME032	Quality and reliability
33	246ME033	Process Modelling and Optimization
34	246ME034	Robotic Mobility Systems
35	246ME035	Advanced Composite Materials
36	246ME036	Material Characterization
37	246ME037	Surface Engineering

Department of Electronics and Communication Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246EC001	Modern Antenna Theory & Design
2	246EC002	Radiating Elements, Analysis and Measurements
3	246EC003	Antenna Measurements
4	246EC004	Design Principles of Microwave Antennas
5	246EC005	Fundamentals of Semiconductor Fabrication Technology
6	246EC006	Design and Analysis of VLSI subsystems
7	246EC007	Sensors and Actuators
8	246EC008	Computer Vision and Image Processing: fundamentals and Applications
9	246EC009	Multimedia and Signal Coding
10	246EC010	Applied Linear Algebra and Optimization for ML Based WC
11	246EC011	Deep Learning
12	246EC012	Signal Transform Techniques
13	246EC013	Speech Signal Processing
14	246EC014	Bio Medical Signal Processing
15	246EC015	Modern Mobile Communication Systems
16	246EC016	Mobile Computing Technologies
17	246EC017	Advanced Wireless Networks
18	246EC018	Advanced 5G Wireless Communication
19	246EC019	Embedded System Design with ARM
20	246EC020	Embedded Networking
21	246EC021	Computer Vision

Department of Computer Science and Engineering

List of Domain-Specific Courses

S.No.	Course Code	Name of the Course
1	246CS001	Data Science Fundamentals
2	246CS005	Artificial Cognitive Systems
3	246CS007	Fog and Edge Computing
4	246CS008	Secure Cloud Computing
5	246CS010	AI for Cyber Security
6	246CS011	AI for Language and Text Processing
7	246CS012	Block Chain Technology
8	246CS013	Quantum Computational Methods
9	246CS015	Introduction to Machine Learning
10	246CS016	Machine Learning for Engineering and Science Applications
11	246CS017	Computer Networks and Internet Protocol
12	246CS018	Natural language processing
13	246CS019	Advanced Computer Networks
14	246CS020	Computer Vision and Image processing - Fundamentals and Applications
15	246CS021	Introduction to Soft Computing
16	246CS022	Introduction to Internet of Things
17	246CS023	Cryptography and Network Security
18	246CS024	Data analytics with Python
19	246CS025	Deep Learning
20	246CS026	Machine Learning and Deep Learning - Fundamentals and Applications

Department of Mining Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246MN001	Applied Rock Mechanics
2	246MN002	Rock Mechanics & Ground Control
3	246MN003	Geomechanics
4	246MN004	Rock Fragmentation Engineering
5	246MN005	Physical & Numerical Modelling
6	246MN006	Tunneling Technology
7	246MN007	Design of Mine Supports
8	246MN008	Numerical Methods for Subsurface Environment
9	246MN009	Numerical Methods for Underground Excavations
10	246MN010	Drilling Engineering
11	246MN011	Planning of Underground Coal Mines
12	246MN012	Planning of Underground Metal Mines
13	246MN013	Planning of Surface Mines
14	246MN014	Underground Excavation Equipment
15	246MN015	Surface Excavation Technology & Equipment
16	246MN016	Environmental Impact Assessment & Management in Mines
17	246MN017	Planning of Underground Ventilation Systems
18	246MN018	Risk & Safety Management in Mines
19	246MN019	Network Analysis for Mines and Mineral Engineering

Department of Petroleum Technology

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246PT001	Advanced Petroleum Geology
2	246PT002	Production Engineering
3	246PT003	Reservoir Engineering-I
4	246PT004	Production Technology-I
5	246PT005	Petroleum Sedimentology
6	246PT006	Reservoir Engineering-II
7	246PT007	Petroleum Economics & Environmental Management
8	246PT008	Drilling Fluids
9	246PT009	Drilling Technology
10	246PT010	Production Technology-II
11	246PT011	Oil and Gas Economics and Risk Management
12	246PT012	Enhanced Oil Recovery Techniques
13	246PT013	Drilling Engineering Hydraulics
14	246PT014	Exploration and Formation Evaluation of Oil and Gas Reservoirs
15	246PT015	Offshore Drilling and Production Practices
16	246PT016	Surface Facility for Oil and Gas Handling
17	246PT017	Reservoir Simulation
18	246PT018	Artificial Life Technology for Oil and Gas Production
19	246PT019	Production Chemicals & oil field chemistry
20	246PT020	Flow Assurance

Department of Agricultural Engineering

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246AE001	Design of Farm Power and Machinery Systems
2	246AE002	Soil Dynamics in Tillage and Traction
3	246AE003	Testing and Evaluation of Tractors and Farm Equipment
4	246AE004	Design and Analysis of Renewable Energy Conversion Systems
5	246AE005	Tractor Design
6	246AE006	Soil and Water Systems Simulation and Modelling
7	246AE007	Flow through porous media
8	246AE008	Watershed Management & Modelling
9	246AE009	Crop Environmental Engineering
10	246AE010	Dryland Technology
11	246AE011	Agricultural Drainage Systems
12	246AE012	Fruits & Vegetables Process Engineering
13	246AE013	Transport Phenomena in Food Processing
14	246AE014	Food Processing Equipment Design
15	246AE015	Advances in Food Processing
16	246AE016	Advances in Drying of Food Materials
17	246AE017	Milling of Food Materials
18	246AE018	Machine Learning for Soil and Crop Management
19	246AE019	Design, Operation & Evaluation of Pressurized Irrigation System

Department of Mathematics

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246MA001	Boundary Value Problems
2	246MA002	Ordinary Differential Equations
3	246MA003	Mathematical Methods
4	246MA004	Fundamentals of Probability and Logic
5	246MA005	Fuzzy Set Theory and Fuzzy Logic
6	246MA006	Universal Algebra
7	246MA007	Fluid Dynamics
8	246MA008	Non-linear Functional analysis
9	246MA009	Real Analysis
10	246MA010	Operations Research
11	246MA011	Abstract Algebra
12	246MA012	Lattice Theory
13	246MA013	Boolean Algebra
14	246MA014	Numerical Methods

Department of Physics

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246PH001	Quantum Mechanics
2	246PH002	Materials Science
3	246PH003	Polymers and Nano-Composites
4	246PH004	Nano-Magnetism
5	246PH005	Introduction to Low Temperature Liquids and Amorphous Materials
6	246PH006	Modern Physics
7	246PH007	Glass Science
8	246PH008	Industrial Nanotechnology
9	246PH009	Surface Engineering for Nanotechnology
10	246 PH010	Advanced Equilibrium and Non-Equilibrium Statistical Mechanics
11	246PH011	Fundamentals of Spectroscopy
12	246PH012	Atomic And Molecular Physics
13	246PH013	Elements of Modern Physics
14	246PH014	Electronic Theory of Solids
15	246PH015	Characterization of Polymers Elastomers and Composites
16	246PH016	Properties of Glass Materials

Department of Chemistry

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246CH001	Theoretical and Computational Chemistry-Methods and Applications.
2	246CH002	Interpretative Molecular Spectroscopy
3	246CH003	Advanced Organic Synthesis: Oxidation, Reduction, and C-C Bond Formation Strategies for Natural Product Synthesis
4	246CH004	Chemistry of Nanomaterials
5	246CH005	Nuclear Chemistry in Research and Industry-Techniques and Innovations.
6	246CH006	Sensor Technologies in Chemistry-Principles and Applications.
7	246CH007	Organic Transformations and Reagents-Catalysis, Selectivity, and Functional Group Interconversions.
8	246CH008	Medicinal Chemistry
9	246CH009	Advanced Green Chemistry-Sustainable Strategies and Innovations in Chemical Processes.
10	246CH010	Environmental Quality Monitoring & Analysis
11	246CH011	Industrial Wastewater Treatment
12	246CH012	Spectroscopy for Structural Elucidation
13	246CH013	Reagents in Organic Synthesis
14	246CH014	Separation Techniques and Bioanalytical Chemistry

Department of English

List of Domain-Specific Courses

S. No.	Course Code	Name of the Course
1	246EN001	New Emerging Trends / Advanced Studies in ELT
2	246EN002	Sociolinguistics
3	246EN003	Translation Studies
4	246EN004	Soft Skills
5	246EN005	English for Specific Purposes
6	246EN006	English Language Teaching
7	246EN007	English Language for Competitive Exams
8	246EN008	Indian Writing in English
9	246EN009	Post-Colonial Literature
10	246EN010	Literary Criticism (From Plato to Leavis)
11	246EN011	American Literature
12	246EN012	Women's Writings
13	246EN013	Refugee, Migration, Diaspora