

INDIAN INSTITUTE OF PETROLEUM & ENERGY

VISAKHAPATNAM, ANDHRA PRADESH

RULES AND REGULATIONS FOR UG COURSES

B.Tech. (Petroleum Engg.)

B. Tech (Chemical Engg.)

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PREFACE:

The establishment of Andhra Pradesh Petroleum University named as '**Indian Institute of Petroleum and Energy (IIPE)**' is established under Andhra Pradesh Reorganization Act, 2014. The Institute is set up as an Institute of National Importance by an Act of Parliament.

IIPE is set up with the objective to meet the quantitative and qualitative gap in the supply of skilled manpower for the petroleum sector and to promote research activities needed for the growth of the sector. The Government of Andhra Pradesh has made available an area measuring 200 acres of land in Anthakapalli Village, Sabbavaram Mandal, Visakhapatnam District for the Institute.

A brawny need for setting up a domain specific Institute recognizing the challenges to meet the quantitative gap in supply of skilled manpower for the industry as well as for research in emerging areas like Shale Gas, Coal Bed Methane, Gas Hydrates, Renewable Energy and Gas etc. has been felt. Also considering the rapid innovations and developments of new technology in the energy sector, the IIPE is expected to keep pace with new developments with enough room to grow. Considering all this Visakhapatnam is felt as the right location for setting up IIPE.

PROFILE OF IIPE:

IIPE is envisaged to serve as the fountainhead for the nurturing of world class technical human resources capable of serving as the Leader and Innovator of tomorrow in the field of Petroleum Technology and Energy covering the entire hydrocarbon value chain.

IIPE is an Institute of high degree of autonomy in terms of its academic, administrative and financial functioning and IIPE legally empowered in its own right to enable it to grant degrees and other distinctions and titles similar to that enjoyed by IITs.

The curriculum of the Institution is a specialized one and advanced with program at post graduate and doctoral level. Based on inputs from industry experts, specialized one year programs are also proposed to be offered. In the long run it's proposed that the Institution would have 6 Departments as detailed below:

- 1) Department of Earth Sciences;
- 2) Department of Petroleum Engineering;
- 3) Department of Chemical Engineering,
- 4) Department of Mechanical Engineering,
- 5) Department of Civil Engineering; and
- 6) Department of Electrical Engineering.

- Six domain specific Post-Graduate programs such as Two M.Sc. Programs;
- Three M. Tech. Programs;
- Three UG Programs; and
- Research in three broad areas is planned to be conducted.

The duration of the programs would range from 1 year to 4 years. Classroom training would be the main mode of delivery. To begin with, the Institute shall start two UG programs from the academic year 2016-17 and shall expand in phased manner as aforesaid. Till the campus of IIPE at Anthakapalli, Sabbavaram, Visakhapatnam gets ready with an aim to start the IIPE sessions during the academic year 2016-17, an MoU has been signed with Andhra University to use the resources of College of Engineering (Autonomous) at Visakhapatnam, viz., Andhra University's lecture halls, teaching laboratories, Library, Workshops, Office space, technological facilities etc.

IIT, Kharagpur shall be the Mentor Institute for starting the academic session 2016-17.

IIPE, Vizag follows a credit based semester system. There are two Semesters in an academic year (Autumn: July - November; and Spring: January - April) during which all courses specified for various degree programs are offered. There is one additional term of seven week duration during summer, for the theory subjects of the first year to offer additional training to students who do not clear these subjects. The students get an opportunity to seek knowledge and experience from International faculty in various multidisciplinary subjects. IIPE, Vizag shall be very student friendly place and all efforts are being made to ensure that the students are provided the best opportunities that are needed to create outstanding pool of human resources to meet the global challenges in all spheres. The students are required to follow certain procedures and meet specified academic requirements each semester. This booklet gives comprehensive information on the existing Rules and Regulations for the programs being offered. We urge the

students to make the best use of the infrastructure and facilities available and wish all of them all the very best for a successful career.

1) **Academic Administration:** The Senate is a statutory and supreme body that governs all academic matters of the Institute, and the rulings of Senate Chairman (Director of The Institute) are final in regard to all academic issues. A definite time schedule is set by the Senate for various academic activities, through an Academic Calendar issued in the beginning of each academic year. The Senate continuously assesses the Academic Programs and makes appropriate revisions/modifications/improvements as and when required through three Institute level Senate sub-committees: The Under-Graduate Program Evaluation Committee (UGPEC) for undergraduate programs, the Post-Graduate Program Evaluation Committee (PGPEC) for post-graduate programs, and the Research Program Evaluation Committee (RPEC) for research programs. Administrative back-up and support for all academic activities is provided by the Academic Section and the ERP system of the Institute. On joining the Institute, students of each discipline are assigned to a Faculty Advisor from their Department. Faculty Advisors assist the students on matters relating to their academic performance and the courses they may take in various semesters. Dean (Undergraduate Studies) and Dean (Students' Affairs) are the two Chief Academic Authorities for the Undergraduate (UG) Programs. All the UG Academic matters come under the purview of Dean (Undergraduate Studies). Matters pertaining to conduct, discipline and welfare of the students are overseen by the Dean (Students' Affairs).

2) **Academic Programs:** The following Undergraduate Programs are Offered by the Institute:

- 4-year courses in Petroleum Engineering and Chemical Engineering leading to the award of B.Tech. Degree.

Semester breaks etc., shall be laid down in the Academic Calendar for the session and published on Institute Web Site. The Academic Calendar shall strive to provide for a total of about 90 working days in each semester.

3) Admission:

- a) Admission to all courses will be made in the Autumn Semester of each session, at the First Year level, through a Joint Entrance Examination (JEE Advanced) conducted by one of the IITs every year by rotation under the supervision of a Joint Admission Board, which comprises of representatives from all the IITs;
- b) In special cases the Institute may admit students to a course on transfer from other IITs. Such admission may be made at any level considered appropriate except at first year level;
- c) Provisions of this Regulation do not prevent the Institute from allowing students enrolled in a university in India or abroad to attend specified subjects in one or more semesters without leading to any degree on certain terms and conditions;
- d) All students admitted to any of the courses including those accepted under Clause 3(b) above shall be required to pay at the time of joining and also in subsequent semesters prevalent tuition and other fees as prescribed by the Institute till they are on roll;
- e) The Institute reserves the right to cancel the admission of any student, and ask him/her to discontinue his/her studies at any stage of his/her career on grounds of unsatisfactory academic performance, irregular attendance in classes or indiscipline;
- f) Residence: The Institute is essentially a residential one and unless otherwise exempted/permitted, every student shall be required to reside in, and be a boarder of a Hall of Residence, to which they are assigned.
- g) Following are the detailed rules governing residence requirements of students:
 - i) The mess of each Hall of Residence shall function as a single integrated unit and shall not, under any circumstances be sub-divided into any kind of groups or sub-groups;

- ii) No married accommodation shall be provided to any student of the undergraduate courses;
- iii) No student shall come into or give up the assigned accommodation in any Hall of residence without the prior permission of the Chairman, HMC;
- iv) A student shall reside in a room allotted to him/her and may shift to any other room only under the direction/permission of the Warden;
- v) Students shall be required to make their rooms available whenever required for inspection, repairs, maintenance or disinfecting and shall vacate the rooms when leaving for the vacations/holidays;
- vi) Students shall be responsible for the proper care of the furniture; fan and other fittings in the rooms allotted to them and shall generally assist the Warden in ensuring proper use, care and security of those provided in the Halls for common use of all students;
- vii) Students will be responsible for safe keeping of their own property. In the event of loss of any personal property of a student due to theft, fire or any other cause, the Institute shall accept no responsibility and shall not be liable for payment of any compensation;
- viii) Engaging personal attendants, keeping pets and use of appliances like electric heater, refrigerators etc. by a student in the Hall of Residence are prohibited;
- ix) All students must abide by the rules and regulations of the Hall of Residence as may be framed from time to time;
- x) Attendance: Attendance in all classes (lectures, tutorials, laboratories, workshops, Extra Academic Activity including its related camps and other publicized activities etc.) is compulsory. A student may be debarred from appearing at an examination on the ground of unsatisfactory attendance;
- xi) The teacher concerned may condone absence from classes for a very short period due to unavoidable reasons provided he/she is satisfied with the explanation;

- xii) If the period of absence is for a short duration (of not more than two weeks) application for leave shall have to be submitted to the Head of the Department concerned stating fully the reasons for the leave requested for along with supporting document(s);
- xiii) The Head of the Department will grant such leave of Absence for a period not exceeding two weeks in a semester due to sickness or any other unavoidable reason for which prior application could not be made may be condoned by the Head of the Department provided he is satisfied with the explanation;
- xiv) If the period of absence is likely to exceed two weeks, a prior application for grant of leave will have to be submitted through the Head of the Department to the Dean (Undergraduate Studies), with the supporting documents. The decision to grant or condone such leave shall be taken by the Dean (Undergraduate Studies) after considering the recommendation of the Head of the Department;
- xv) It will be the responsibility of the student to get his absence from classes condoned by the appropriate authority;
- xvi) Absence from classes without prior permission will be considered as an act of indiscipline. Such cases will be dealt with appropriately;
- xvii) A student must intimate his/her absence to the Warden of the Hall in which he/she is residing, before availing of any leave. Failing to do so will be construed as breach of discipline and will be dealt with as per provisions of Conduct and Discipline;
- xviii) Students shall conduct themselves within and outside the precincts of the Institute in a manner befitting the students of an institution of national importance;
- xix) Students shall show due respect to the teachers of the Institute, the Wardens of the Halls of Residence, the Sports Officers of the Gymkhana / play ground and the Officers of the National Cadet Corps; proper courtesy and consideration should be extended to the employees of the Institute and of the Halls of Residence. They shall also pay due attention and courtesy to visitors;

xx) Students are required to develop a friendly relationship with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the Institute every year. Law bans ragging in any form to anybody - acts of ragging will be considered as gross indiscipline and will be severely dealt with;

xxi) The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures:

- Ragging;
- Furnishing false statement of any kind in the form of application for admission or for award of scholarship etc.
- Displaying lack of courtesy and decorum; resorting to indecent behavior anywhere within or outside the campus;
- Willfully damaging or stealthily removing any property/belongings of the Institute, Hall or fellow students;
- Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drugs;
- Adoption of unfair means in the examinations;
- Organizing or participating in any group activity in company with others in or outside the campus without prior permission of the Dean of Students' Affairs;
- Mutilation or unauthorized possession of library books;
- Resorting to noisy and unseemly behavior, disturbing studies of fellow students;
- Misuse of Internet/e-mail facilities or tampering/hacking with servers anywhere in the Halls of Residence/Departments etc.
- Not intimating his/her absence to the Warden of the Hall before availing any leave.

h) Commensurate with the gravity of the offence, the punishment may be reprimand, fine, and expulsion from the Hall, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute;

- i) For an offence committed (a) in a Hall of Residence, (b) in the Department or a classroom and (c) elsewhere, the Warden, the Head of the Department and the Dean of Students' Affairs, respectively, shall have the authority to reprimand or impose fine or take any other suitable measure. All cases involving punishment other than reprimand shall be reported to the Chairman of the Standing Institute Disciplinary Committee.
- j) All major acts of indiscipline, which may have serious repercussion on the general body of students, and/or which may warrant a uniform and more formalized nature of investigation, shall be handled by the Standing Institute Disciplinary Committee appointed by Senate. The Standing Disciplinary Committee consists of the following ex-officio and other members: (i) Dean of Students' Affairs - Chairman (ii) Chairman, Hall Management Committee - Member (iii) Warden of the Hall of Residence of which the student concerned is a boarder - Member (iv) One Faculty nominated by the Senate, by rotation for two years - Member (v) Student Vice-President, Technology Students' Gymkhana - Member (vi) One of the student representatives in the Senate, to be nominated by the Dean Students' Affairs, for one year - Member (vii) The Deputy Registrar (Academic) - Member Secretary. In addition, the Chairman may invite any other person(s) to be associated with the proceedings of a particular case, if his/her/their participation is considered necessary in disposing of the matter.
- k) Recommendation of the committee, which will include the suggested punishment in cases of guilt proven, will be forwarded to the Chairman Senate for necessary action;
- l) Cases of adoption of unfair means in an examination shall be dealt with by the Committee on Prevention of Examination Malpractices consisting of the following members: (i) Professor-in-Charge of Examination - Chairman (ii) Head of the Department to which the reported student belongs - Member (iii) The Invigilator reporting the case- Member (iv) The Invigilator-in-Charge of the Examination Hall concerned- Member (v) The Paper-setter concerned - Member (vi) Two members of faculty nominated by the Undergraduate

Program & Evaluation Committee for a term of two years - Members (vii)
The Assistant Registrar (UGS) – Secretary. The Committee shall recommend appropriate measures in each case to the Chairman of the Senate for awarding the punishment;

- 4) **Change of Branch (At the end of First Year):** Change of the branch is a privilege and not a right. Only those students admitted to B.Tech. Program through JEE(Advanced) are eligible to be considered for a change of branch after the Second (Spring) Semester as per the following rules. To be eligible for consideration for a change of branch the following conditions must be satisfied:
- a) He/she must have completed all the credits prescribed in the first two semesters of the course, in his/her first attempt, without having had to pass any course requirement in the re-examination, supplementary examination and/or summer quarter;
 - b) He/she must have obtained a Cumulative Grade Point Average (CGPA) not lower than 8.5 at the end of the Second (Spring) Semester;
 - c) He/she must not have been punished for any offence by the Standing Institute Disciplinary Committee or the Committee on Prevention of Examination Malpractices at any time prior to the notification for the change of branch;
 - d) Application for a change of branch must be made by intending eligible students when the notification is made during the Spring Semester of the academic year. The students have to accordingly (i) apply online and (ii) submit signed hardcopy to Academic Section by the specified deadline;
 - e) Students admitted to 4-Year B.Tech., are eligible for consideration for a change of branch to any Engineering;
 - f) Change of branch shall be made strictly on the basis of inter se merit of the applicants. For this purpose the CGPA obtained at the end of the Second (Spring) Semester shall be considered.
 - g) In making the change of branch, those applicants shall be first considered who have secured a rank within top 1% (one percent), rounded to the nearest integer, amongst all the first year students in terms of the CGPA scored at the end of the Second (Spring) Semester;

- h) Change of branch requested for by such applicants shall be made without any constraint;
- i) The remaining applicants may be allowed a change of branch, strictly in order of inter se merit, subject to the limitation that the actual number of students in the Third (Autumn) Semester, in the branch to which the transfer is to be made, does not exceed 110% of the sanctioned yearly intake for that branch. The sanctioned yearly intake of a particular branch shall be the number sanctioned by the Senate as the intake for that branch for the particular year of entry of the applicants. To compute the total number of students in the first year, sum of the sanctioned yearly intake of all the branches will be taken. For the purpose of calculating the actual number of students in a particular branch, the number of students joining the branch is to be considered; The academic section will notify the students and display on the notice boards about the changes of the branch at least 7 (seven) days before the assigned date(s) of the registration of the third (Autumn) semester. However, all changes of branch made in accordance with the above rules will be effective from the Third (Autumn) Semester of the applicants concerned. No changes of branch shall be permitted thereafter;
- j) All changes of branch will be final and binding on the applicants. No student will be permitted, under any circumstances, to refuse the change of branch offered;
- k) Notwithstanding the provisions of foregoing paragraphs, the Senate may under very special circumstances, permit the transfer of a student from one branch to another in deviation of the above mentioned rules. In each such case the special reasons for which the transfer is permitted must be recorded in the Senate resolution. Such transfers, if any, will be over and above the regular transfers, and their number will not be counted in the computation of 'Actual Number of Students' in a given branch.

5) Course Curricula:

- a) The general course structure for all Programs of B.Tech. comprises of the following components:

- Common Curricula for First Year;
- Theory and Laboratory /Design/Sessional subjects with regular class room contact;
- Four Non Credit components of Extra Academic Activity from 1st to 4th semester;
- Industrial Training;
- Comprehensive Viva Voce;
- Project in Two parts.

- b) The detailed approved curricula for various Disciplines along with the syllabus for each subject for all the programs is made available on the Institute Website;
- c) All subjects prescribed in the curriculum except Extra Academic Activity have credits assigned to them;
- d) Subjects are broadly classified into two categories.
 - i) Theory, Laboratory, Sessional and Design based courses having a regular class room/laboratory contact. These Subjects have a lecture-tutorial experiment/design component (L-T-P) to indicate the contact hours per week. Their L-T-P pattern may be (L-T-0, L-0-0, 0-0-P and in some cases L-T-P);
 - ii) Comprehensive Viva Voce, Project, Field Trips and Industrial Training/Office Training which do not have regular class room contact
- e) Teaching of subjects would be reckoned in terms of credits;
- f) **Subject pre-requisite:** A subject may have one or more subjects listed as its pre-requisite. A student who has qualified in all the subjects in the pre-requisite would be allowed to register in the subject. The teacher concerned would have the prerogative to waive the prerequisite for a student if he/she is satisfied through a test that the student otherwise have gained sufficient proficiency to take up the subject;
- g) **Extra Academic Activity:** Every student must register and complete the Extra Academic Activity (EAA) requirements as laid down in the curriculum.
- h) EAA is classified into 4 main groups such as National Cadet Corps (NCC) National Service Scheme (NSS), National Sports Organization (NSO) and Health and Fitness (HF).

- i) Further NCC is classified into Electrical & Mechanical Engineering (EME) Wing and Air Wing (ARW).
- j) NSS classified into 15 units;
- k) NSO classified into different sports such as athletics, badminton, basketball, cricket, football, hockey, swimming, tennis, table tennis, volleyball;
- l) Health & Fitness classified into 10 units.
- m) All the above EAA is being coordinated by Program Coordinator and the individual modules by Program officers.
- n) Student exercise their choice of EAA components at the time of admission;
- o) Allocation of the EAA component is made centrally based on their choices and availability;
- p) Clearing EAA is mandatory for the award of the degree.
- q) The normal duration of program leading to the degrees to be awarded under these Regulations are B.Tech. - 4 years

6) Coordinated Courses:

- a) A Co-ordination Committee would be constituted for each subject taught by more than one teacher of one or more Departments/Centers. Each committee would consist of all the teachers who are involved with the teaching of the subject during the semester. One of its members would be nominated by the Head of that Department, under whose name the subject is being offered, to act as its Chairman. Tenure: The semester in which the subject is being offered; Functions; To lay down the course plan for the subject; To coordinate instructions and progress of teaching in the subject and to ensure that the full syllabus is covered; To review periodically the performance of students who have registered in the subject; To forward the results of the examinations and the final grades obtained by each student taking the subject to the concerned Head of the Department; To moderate the question papers on the subject and ensure that the syllabus is well covered by the question papers;
- b) **Frequency of Meetings:** Each Co-ordination Committee shall meet at least four times during the semester;

- c) **Industrial Training and Field work:** The curricula for all B.Tech. programs would include compulsory industrial training for 8 weeks carrying 2 credits, to be carried out in the summer vacation at end of the sixth semester;

7) **Allotment of training programs by Career Development Centre:**

- a) The allotment of training programs of all the students by Career Development Centre will be frozen by a suitable and fixed deadline each year. No further change will be entertained under any circumstances;
- b) A student after being selected in an organization by Career Development Centre cannot opt out of his training from that organization under any circumstances;
- c) Any arrangement of training in industry or academia (within or outside the country) has to be routed through Career Development Centre via the Professor-in-Charge of training of the respective department;
- d) **Evaluation of Summer Training:** The performance of the student in the Summer Training will be evaluated based on his submission of a certificate from the organization of his training followed by a combined viva-voce/presentation and report examination.

8) **Micro-Credits:**

- a) Micro-Credit courses are one credit courses having duration of 3-14 days offered during the semester or during evening or free slots available during weekdays or even weekends that are not declared holidays in some special cases when students are available. The subject will be counted for total credit requirement for completion of degree in special cases subject to recommendation of the Head and approval of Dean (UGS) with due reasons recorded. The subject and grade will be mentioned in transcript / grade card and will be used to compute CGPA for additional subjects and will be shown as ACGPA. Failures will be marked by F grade. There will be no supplementary examination for such subjects. The F grade will be changed only if the subject is offered again and the student is allowed to register and clear the subject. However, in case the micro-credit is accepted as a subject contributing to the curricular requirement, it will be accounted for in the CGPA calculations.

b) A student is normally not expected to take more than 2 such courses in a semester. The subject may also be a part of minor and micro-specialization.

9) **Minor in a Discipline:** A department would offer a MINOR in a discipline in which it offers a major. The department would enlist a set of subjects from its curriculum and prescribe a requirement for minor taking six subjects or more (18-24 contact-hours plus 3-9 hours of laboratory) from this set. The subjects would be a combination of mostly core and some electives. Students aspiring for a Minor in a discipline must register for the same in the beginning of the 5th semester. Only those students, who have a CGPA of 7.5 or above, without any Backlog, will be permitted to register for a Minor. An SGPA or CGPA in excess of 8.0 has to be maintained in the subsequent semesters without any Backlog in order to keep the Minor registration active. Should both the SGPA and CGPA fall below 8.0 at any point after registering for the minor; the Minor registration will cease to be active. A student registered for Minor in a discipline must register and pass in all subjects that constitute the requirement for a minor and score a minimum grade point average of 6.00 to be awarded a Minor in that discipline. A student may cover these six subjects as either a depth subject, elective subject or a breadth subject or as additional credits. However, he/she has to take at least three subjects as additional credits to earn a minor.

10) **Micro – Specialization:** The Institute proposes to offer Micro-Specializations to UG students from the Spring Semester of the current Academic Session (2016-2017). The salient features are as follows:

- a) Each Micro-Specialization has a defined structure in terms of three sequential components.
 - i) Component-I – One Foundation Course (2-4 credits) that constitutes a Mandatory Requirement and also a Pre-Requisite for subsequent Components;
 - ii) Component-II- One/Two subjects (3-4 credits each) from a Specified list of subjects;

- iii) Component-III- Project/Design/Term Paper (4 credits) OR one subject (4 credits) from a Specified list.
- b) A Student would be required to complete 3-4 subjects (10-14 credits) from the specified list in order to earn a Micro-Specialization. The subjects can be taken through the Breadth/Open Elective component of the curriculum or as Additional Subjects. If specified in the Micro-Specialization curriculum, the subject can also be taken as Micro-Credit/s.
- c) A student has to register for a Micro-Specialization. The Registration can be done in the beginning of any Semester beyond first year. In order to register for a Micro-Specialization the student must have completed all curricular requirements up to the previous semester and have a CGPA ≥ 7.0 . Thereafter the student must maintain a CGPA or SGPA ≥ 7.5 without any Backlog in the subsequent semesters to keep the Micro-Specialization registration active.
- d) GPA for the subjects contributing to the Micro-Specialization will be separately calculated. A minimum GPA of 6.00 is essential to earn the Micro-Specialization.

11) Guidelines for registration of UG students (except fresh 1st year):

- a) A Student who has cleared all curricular requirements up-to the previous semester will register for all subjects of the current semester in accordance with the curriculum;
- b) All backlog subjects of the corresponding semester have to be registered first.
- c) Students having only one backlog subject in a semester may register for the prescribed credit of the semester in addition to the backlog subject;
- d) For students having more than one backlog subject in a semester the registered credit in the semester inclusive of backlog subjects must not exceed 28;
- e) For students repeating a year, the registered credit in a semester must not exceed 16. He/She may register for subjects of P grade along with backlog subjects, with total registered credit not exceeding 16;

- f) The credits of Industrial Training, field Trips (GG and MI students), comprehensive viva voce and EAA should be excluded while calculating the 28 or 16 credit limits per semester for backlog/year repeating students;
- g) In registration for a subject, prerequisite must be taken care of;
- h) Students may be allowed to take Departmental elective subjects instead of professional breadth electives. Registration in the subjects of same slots will not be allowed.

12) Academically Weak Students: Such students will be divided into two categories based on their Notional CGPA (calculated on the basis on Total Credit Taken)

a) A student having CGPA < 6.0 B. A student who has more than two backlogs/unregistered subjects (regardless of CGPA). The faculty advisors will set up a meeting date every month and it will be mandatory on the part of the students to attend these meetings. During the meeting the problems of student will be discussed and measures to improve their Academic Performance suggested. A report of these meetings must be recorded on ERP for each student. The Academic Registration on ERP for all weak students shall be done through faculty advisor only.

b) Restriction limits on Registration for Academically Weak Students: Students will be divided into two categories based on their Notional CGPA (calculated on the basis on Total Credit Taken)

i) Category 1: Students with CGPA ≥ 6.0

ii) Category 2: Students with CGPA < 6.0

Registration limits will depend on the students' category and the following limits will be imposed based on the number of subjects:

Category 1: No restriction on the number of subjects. The student, however, must register for the Backlog/Unregistered subjects first. A student may register for a maximum of 28 credits. In case of final year, where the normal credit loading itself is around 28 credits due to the Project component, a student may be allowed two backlogs over and above the prescribed credit limit of the semester.

Category 2: A student may register following any of the limits listed below:

- 1) 4 theory subjects and 2 labs (including design/sessional)
- 2) 5 theory subjects

3) 3 theory subjects, 1 laboratory and 1 project 4)

4) 4 theory subjects and 1 project

c) The student must register for the Backlog/Unregistered subjects first. Students, in this category, will be allowed to register only for one Project at a time. The number of subject includes improvement subjects;

d) Students who have cleared all the curricular requirements upto the previous semester and obtained CGPA lower than 6.00 may be allowed, on the recommendation of the Head of the Department and the approval of the Dean (Undergraduate Studies), to re-register in one or more subjects in which he/she received 'P' grade(s), so as to improve his/her CGPA to 6.00 or above, provided that the subject(s) is/are otherwise being offered in that semester and there is no clash in the time table. The grade will be revised and recorded only if there is an improvement.

e) A student who has been debarred from appearing at an examination either (i) as per recommendation of the subject teacher for unsatisfactory attendance or (ii) by the Institute as a measure of disciplinary action or (iii) for adopting malpractice at an examination, and consequently awarded a grade 'X', may re-register for the subject(s) after the term of the debarment expires, provided that other provisions of this regulations do not prevent him;

f) With the concurrence of the Faculty Adviser a student may be allowed to change his/her registration of subjects within one week from the day of registration. If eligible a student may be allowed to register in additional subjects, with the concurrence of the Faculty Adviser, within one week from the day of registration.

g) **De-registration:** The student can be de-registered in a subject of a semester by the concerned teacher on the ground of poor attendance. If a student does not have a minimum of 80% attendance in a subject, he/she can be de-registered from the subject at the discretion of the subject teacher. Only one-time de-registration is permissible and no revocation of the deregistered subject is admissible, except on genuine medical grounds.

- h) Email Warning should be given to the students by the subject teacher prior to de-registration;
- i) The de-registration process shall commence after the Mid-semester Examination.

12) **Grading System:** As a measure of students' performance a 7-scale grading system using the following letter grades and corresponding grade points per credit, as shown in Table 24.1 will be followed: Table 24.1

In addition, there shall be one grading symbol X used to indicate that the student is Deregistered/Debarred in that particular subject. A Semester Grade Point Average (SGPA) will be computed for each semester. The SGPA will be calculated as follows:

$$SGPA = \frac{\sum_{i=1}^n C_i g_i}{\sum_{i=1}^n C_i}$$

where 'n' is the number of subjects registered and cleared for the semester, „ i c “ is the number of Credits allotted to a particular subject, and „ i g “ is the grade points carried by the letter corresponding to the grade awarded to the student for the subject. SGPA will be rounded off to the second place of decimal and recorded as such. The SGPA would indicate the performance of the student in the semester to which it refers.

Starting from the second semester at the end of each semester S, a Cumulative Grade Point Average (CGPA) will be computed for every student as follows:

$$CGPA = \frac{\sum_{i=1}^m C_i g_i}{\sum_{i=1}^m C_i}$$

Performance Letter Grade point Per Credit Excellent Ex 10 Very good A 9 Good B 8
Fair C 7 Average D 6 Pass P 5 Fail F 0

Where „m“ is the total number of subjects the student has registered and cleared from the first semester onwards up to and including the semester S, „i c “ is the number of Credits allotted to a particular subject „i s “ and „i g “ is the grade-point carried by the letter corresponding to the grade awarded to the student for the subject „i s “. CGPA will be rounded off to the second place of decimal and recorded as such. The CGPA would indicate the cumulative performance of the student from the first semester up to the end of the semester to which it refers. The CGPA, SGPA and the grades obtained in all the subjects in a semester will be communicated to every student at the end of every semester. For determining the inter se merit ranking of a group of students, only the rounded off values of the CGPAs will be used.

- a) When a student gets the grade „F“ in any subject during a semester, the SGPA and the CGPA from that semester onwards will be tentatively calculated, taking only „zero point“ for each such „F“ grade. After the „F“ grade(s) has/have been substituted by better grades during a subsequent semester, the SGPA and the CGPA of all the semesters, starting from the earliest semester in which the „F“ grade has been updated, will be recomputed and recorded to take this change of grade into account;
- b) **Conversion of CGPA into percentage Marks:** In case of a specific query by students/employers regarding conversion of CGPA into percentage marks, the following formula will be adopted for notional conversion of CGPA into percentage marks. Formula : % Marks = CGPA*10
- c) **Assessment of Performance:** There will be continuous assessment of a student's performance throughout the semester and grades will be awarded by the subject teacher/co-ordination committee formed for this purpose;
- d) In general there shall be no rigid marks-to-grade linkage. Difficulty levels of the examinations, tests, assignments, viva-voce and other factors that contribute to

the final marks are to be considered by the teacher/co-ordination committee of a subject while converting marks into letter grades.

- i) The grades F and EX are to be considered as bench mark grades;
 - ii) The range of cut-off marks below which a student would be assigned an 'F' grade is 30-35 for the theory component and 35-40 for the laboratory component, the exact cut-off marks is to be decided by the teacher/coordination committee.
 - iii) The exceptionally brilliant performance is to be assigned an „EX“ grade. Even the best student of any class needs to be good enough to be awarded the „EX“ grade.
- e) For subjects which have a laboratory component (P-component) along with the theory, to secure any grade higher than „F“ a student has to achieve individually more than the cut-off marks in both the theory component and the laboratory component. Separate marks, each out of 100 (hundred), in the theory component (L- & T- components) and the laboratory component are to be ascertained first. A composite mark for the subject out of 100 is then to be computed by taking appropriate contribution of theory component and the laboratory component as shown in Table :
- Table : Marks Range (m) Grade
- | | |
|------------------|----|
| $m \geq 90$ | EX |
| $80 \leq m < 90$ | A |
| $70 \leq m < 80$ | B |
| $60 \leq m < 70$ | C |
| $50 \leq m < 60$ | D |
| $40 \leq m < 50$ | P |
| $m < 40$ | F |
- f) **Large Class Assessment:** In the case of a relatively large class and/or classes where the performance level depicts more or less a normal distribution:
- (a) The average performance (around mean value of marks) is to be assigned „C“ grade. However, if by teacher's/co-ordination committee's perception the general level of the class is considered to be appreciably high, the average performance may be assigned „B“ grade.
 - (b) All other marks to grade conversion are to be done relatively with respect to the average performance in between (but excluding) the F and EX grades, which have already been assigned, by choosing appropriate boundary marks between grades.

(c) Normally, in a reasonably large class of students distribution of grades is expected to be as follows:

Table : Grade Distribution EX ≤ 10% A 10 – 20 % B, C, D 20 – 35 % P 10 – 25 % F < 5 %

(d) In the case where a student appears in the supplementary examination or attends summer quarter, the conversion from marks to grade would be done applying the same norm as was framed for the original class.

(e) For classes where excessive bunching occurs resulting in almost all the marks tending to cluster into same category, conversion from marks to grade may be done using the Table where „m“ stands for the marks obtained. However, the teacher may, on his/her perception of the difficulty level of assessment process undertaken, alter the boundary (cut-off) marks by +/- 5 marks;

(f) For subject in which the theory component is greater than 1 (one), the sub-components and the respective weights assigned to these are given below.

Table: Subcomponent Weight Teacher's Assessment 20% Mid-Semester Examination 30% End-Semester Examination 50%

(g) For assigning marks in Teacher's Assessment (T.A.) performance in home assignments, class-tests, tutorials, viva-voce, attendance etc., are to be considered. At least two class tests are to be conducted for a subject. The weights of different sub-components of T.A. are to be announced by the teacher at the beginning of the Semester.

(h) For subjects in which the theory component is 1 (one), there would be no Mid-Semester or End-Semester Examinations. The marks of the theory component would be decided by performance in class-tests, home assignments, tutorials (if any), viva-voce, attendance etc. At least two class tests are to be conducted for the theory component of such a subject. The weights of different subcomponents are to be announced by the teacher at the beginning of the Semester.

(i) For assigning marks in the laboratory component (P-component) the relevant sub-components that are to be considered are day-to-day work, regularity, tests (at least two must be conducted), assignments, vivavoce etc. Percentage weights of the different sub-components in deciding the final marks are to be announced at the beginning of the Semester.

13) The eight-week industrial training undergone by the students in the summervacation after the sixth semester would be assessed within five weeks after the commencement of the seventh semester. The students are required to submit a written report on the training received and give a seminar, on the basis of which a grade would be awarded. The students are also required to submit to the Head of the Department a completion certificate in the prescribed form from the competent authority of the organization where the training was received, without which he/she would not be assessed.

14) **Assessment of Project Work:** Performance in the various activities involved in the project would be assessed individually at the end of each semester in which it is being carried out as per the curriculum. The student is required to submit a written report at the end of the semester. The Head of the Department would appoint a project evaluation board for the purpose of assessment. The different components of evaluation and the weights assigned to these components are depicted below:

Table : Subcomponent Weight Supervisor's assessment 40% Project Report/Thesis (to be assessed by the board) 20% Evaluation Board's assessment 40%

The student is required to give a seminar on the project work done. The evaluation board would conduct the viva-voce. Dates for conducting the seminar and the viva-voce, to be held within ten days after the end-semester examination, would be announced in the academic calendar.

15) The grades for projects of 7th, 8th semesters for B.Tech. have to be submitted within the respective deadline of grade submission as per Academic Calendar. If a student cannot complete the project for any reason, by deadline, he/she will get an 'F' grade. The extension of project in a semester can be made with the prior approval by Dean UGS of the application made by the student through his/her Project Supervisor and Departmental Head. The deadline for submission of the grades for the extension availed in projects allotted in Autumn Semester (7th Semesters) will be three days before the registration of the next Spring Semester, while the deadline for submission of the grades for the extension availed in the projects allotted in the Spring Semester (8th Semesters) will be June 30 of the concurrent year. In case of project extension, a student will be awarded one grade less than that actually obtained by him/her.

If a student cannot clear the project for the 7th semester, he/she can register the same along with 8th semester project. In such case, he/she will get one grade less than that actually obtained in the evaluation of project part I (7th semester component).

16) The Head of the Department would constitute the Viva-Voce Board(s) for conducting the comprehensive viva-voce examination as per the requirement of the curriculum. The Board would decide the relative weights of the different aspects of the viva-voce and decide the grades to be awarded to the students. The dates of the viva-voce, to be conducted within ten days after the previous end-semester examination, would be announced in the academic calendar.

17) Examinations:

a) Mid-Semester and the End-Semester Examinations in respect of the theory component of the subjects are conducted on the dates specified as per academic calendar.

b) Examination for some subjects are held centrally while for the others it's held in the departments;

c) A student will be issued an Admit Card for appearing in an examination, only if he/she has:

i) Paid all Institute and Hall dues of the semester.

ii) Not been debarred from appearing in the examination as a result of disciplinary proceedings.

A student may be debarred from appearing at the Mid-Semester or EndSemester Examination on the report of a teacher/ chairman, coordination committee, if his/her:

Attendance at lecture/tutorial/laboratory classes has not been satisfactory during the period, and/or, Performance in the assignment works during the semester has not been satisfactory.

18) Attendance in class tests and mid-semester examination: 27.3.1 Class tests, mid-semester examinations, assignments, tutorials, vivavoce, laboratory assignments, etc., are the constituent components of continuous assessment process, and a student must fulfill all these requirements as prescribed by the teacher/co-ordination committee of the subject. If due to any compelling reason (such as his/her illness, calamity in the family, etc.) a student

fails to meet any of the requirements within/on the scheduled date and time, the teacher/coordination committee in consultation with the concerned Head of the Department may take such steps (including conduction of compensatory tests/examinations) as are deemed fit.

19) Attendance in end-semester examination: Appearing in the end-semester examination in the theory component of a subject is compulsory for a student. If a student fails to appear in the end-semester examination he/she will be assigned an 'F' grade in the subject and will not be permitted to register in the summer quarter or appear at the supplementary examination for the subject as stipulated. However, if a student misses the end-semester examination due to a compelling reason like serious illness of himself/herself or a calamity in the family, he/she may appeal to the Dean, Students' Affairs, through his/her Head of the Department for permitting himself/herself to register in the summer quarter or appear at the supplementary examination(s), as the case may apply.

A subcommittee of the Undergraduate Program & Evaluation Committee (UGPEC) consisting of the following members may, after examining the documents and being convinced about the merit of the case, recommend permitting him/her to register in the summer quarter and/or appearing in the supplementary examination(s) with full credit condoning his/her absence:

The Dean of Students' Affairs – Chairman
The Dean of Undergraduate Studies.
One Medical Officer;
The Deputy Registrar (Academic) – Secretary

20) Students will be permitted to appear in the examinations in only those subjects for which they have registered at the beginning of the semester and have not been debarred.

21) The final grades awarded to the students in a subject must be submitted by the teacher/chairman, co-ordination committee, within seven days from the date of holding the examination to the concerned Head of the Department for onward transmission to the Assistant Registrar (UGS)

22) The evaluation of performance in the Extra Academic Activities (EAA) will be done by the respective program officers.

23) For the benefit of and as a process of learning by the students, the scripts after correction of all class tests, mid-semester examinations, assignments etc., would be shown

to the students within 4 weeks from the date of tests/examinations. The scripts of the end-semester examinations are to be shown within 15 days from the date of commencement of the next semester.

24) With a view to assist the students, who failed in one or more subjects in the autumn and/or spring semester in a year, a Summer Quarter will be conducted during the immediately following summer vacation for making up their deficiency and improve the performance.

The regulations for running the Summer Quarter are separately In order to provide an additional opportunity to the students who failed (obtained 'F' grade) in one or more subjects, due to not being able to score higher than the cut-off marks in the theory components, in either the autumn and/or the spring semester in a year, Supplementary Examinations equivalent to the end-semester examination arranged centrally by the Academic Section, will be conducted in the month of July (before commencement of the next session) every year. Regulations relating to the Supplementary Examination are given separately.

25) Supplementary Examination:

- a) A student will be eligible to appear in the supplementary examination in a subject if he/she actually appeared at the last end-semester examination in that subject and obtained the grade 'F'. However if a student has been absent in the End Semester examination (a) due to medical reasons, that are duly certified by the authorized Medical Officer or (b) due to a calamity in the family his/her case will be considered for supplementary with full credit. In such cases the student must apply in writing to the Dean (Undergraduate Studies) through the Head of the Department.
- b) All medical cases will be put up for consideration to the medical board. Only upon certification by the medical board the student will be granted full credit.
- c) A student will not be allowed to appear in more than 5 (five) subjects in the supplementary examinations and Summer Quarter put together.
- d) Intending students must submit their application, countersigned by the teacher(s) of the subject(s) or the Head of the Department concerned, along with

the necessary fees to the Academic Section by the date as announced by a notification.

- e) The supplementary examinations shall be held on such dates as laid down in the Academic Calendar for the year or as notified separately.
- f) The grade in the subject scored by the student appearing in the supplementary examination will be recomputed by substituting the marks of the end-semester in the total marks scored by that scored in the supplementary examination. Unless granted full credit by virtue of clause 25(b) a student is entitled only to one grade lower than the actual grade thus scored, except that the performance grade „P“ remains unaltered, as elucidated in the table below:

Table: Grade Obtained Grade to be Awarded F F P P D P C D B C A B EX A

- g) The final grades awarded to the students must be sent to the Academic section on or date specified in the academic calendar.
- h) A consolidated department wise list shall be prepared by the Academic Section from ERP and communicated to the department. The department shall be responsible for conducting re-examination and/or supplementary examination at the departmental level. However, the central time table will be drawn by the institute for this purpose. Moreover, supplementary/ summer quarter examination for first year students shall be conducted centrally.

26) Summer Quarter: To enable the undergraduate students to make up deficiencies a Summer Quarter will be organized every year during the summer vacation. Summer Quarter shall, however, be offered only in the theory components of the subjects. The duration of the Summer Quarter shall be seven weeks from around the middle of May till around the end of June. The exact dates for holding the Summer Quarter for a particular session shall be decided by the Senate every year while finalizing the Academic Calendar.

- a) The attendance requirement for the Summer Quarter shall be the same as for a regular semester. A student who does not satisfy the norms will not be allowed to appear at the examination.
- b) **Eligibility:** Only those students will be permitted to register themselves for a subject offered in the Summer Quarter who has cleared all Institute and Hall

dues till date and have paid the necessary fees and Mess Advances for the Summer Quarter for which they are registering. A student will be eligible to register in a subject if he/she actually appeared at the last end-semester examination in that subject and obtained the grade 'F'.

- c) A student, who could not appear at the end semester examination due to self-illness or calamity in the family, will also be eligible to register for the subjects concerned in the Summer Quarter subject to fulfillment of conditions as aforesaid.
- d) No Supplementary Examination shall be held in a subject that is being offered in the Summer Quarter of the session unless extraordinary circumstances justify it.
- e) Students who have obtained CGPA lower than 6.00 may be allowed, on the recommendation of the Head of the Department and the approval of the Dean (Undergraduate Studies), to re-register in one or more subjects in which he/she received 'P' grade(s) in the Summer Quarter, so as to improve his/her CGPA to 6.00 or above. The grade will be revised and recorded only if there is an improvement.
- f) Registration: All students intending to join a Summer Quarter must register themselves for the subjects concerned on the day fixed for the purpose. No late registration shall be permitted on any ground;
- g) A prevalent Summer Quarter registration fee, as decided by the Institute from time to time shall have to be paid along with the application in a prescribed form;
- h) The weekly lectures and tutorials of a subject taught in the Summer Quarter shall be twice the corresponding loading it carries during the normal semester. The credits allotted to it shall, however, remains same;

- i) A student shall not be allowed to register for more than two subjects during a Summer Quarter.
- j) Summer Quarter in a subject shall be offered only if at least 5 students register for that subject;
- k) **Assessment:** The teacher offering a particular subject during the Summer Quarter shall Take care of all aspects of the theory component of the subject, viz., lectures, tutorials, assignments etc. Conduct all class tests, mid-semester examination, end-semester examination, viva-voce etc. The end-semester examinations may, however be centrally arranged; Compute the grade as per rules laid down. The contribution of the laboratory component, if there is any in the subject, ascertained in the original semester has to be used for computing the numeric marks out of 100.

27) The grades awarded to the registered students must be sent to the Academic Section on or date specified in the academic calendar.

28) **Grade Submission & Grade Revision:** The grade submission has to be made within a maximum period of 10 (ten) days from the last date of the semester examination specified in the Academic Calendar. Beyond that date, permission has to be taken from the competent authority for the grade submission and accordingly the Academic Section will allow for late submission of the grade.

- a) The grade submission will be made online. A print out of the submitted grade has to be taken and signed by the teacher concerned. The signed copy of the grade must be submitted to the academic section within due date. Apart from the online grade submissions, the details of the Mid Semester, End Semester and TA marks have to be entered online for those students who have obtained 'F' grade. The Institute will notify online the failure list to the concerned student (s) once signed hard copy of the failure with all these details are received by the Academic Section through the HOD by the concerned teacher(s) and approved by the UGPEC of the institute.

- b) The display of performance records/showing evaluated answer scripts of the end-semester examination of a subject has to be made within a maximum period of 9 (nine) days from the last date of the semester examination specified in the Academic Calendar. The mid-semester answer scripts, however, must be shown within 20 (twenty) days from the last date of the mid-semester examination.
- c) **Grade Revision:** A letter grade once awarded shall not be changed unless the request made upon detection of genuine error of omission and/or commission by the concerned teachers/coordinators with all relevant records and justification and recommended by the departmental UG committee and Head of the Department and approved by the Chairman, Senate/Dean, UGS within due date as provided.
- d) For the subjects of 2nd semester, no change will be permitted in the grade submitted.
- e) For the subjects of re-examination, supplementary examination and summer quarter of both 1st and 2nd semesters, the change of grade has to be made within a maximum period of 3 (three) days after the UGPEC meeting considering re-examination, summer quarter and supplementary examination results.
- f) For the subjects of 8th semester (for 4 year B.Tech. students), the change of grade has to be made within a maximum period of 3 (three) days after the Senate meeting considering the results. No change will be permitted for re-examination, summer quarter and supplementary examination grades. However, in an extraordinary circumstances, the grade change will be allowed only after approval of the Chairman, Senate within a maximum period of 1 (one) day after the UGPEC meeting considering the re-examination, summer quarter and supplementary results.
- g) Normally a student should complete all the requirements consecutively in eight semesters for B.Tech. Degree. However, academically deficient students can complete their requirements within the maximum time limits specified

- h) A student, whose academic records at the end of any semester clearly indicate that he/she will not be able to qualify for the degree for which he/she had been admitted within the limits of time specified, shall have to discontinue studies and leave the Institute when asked to do so.

29) Promotion to next year and discontinuation of study: A student has to clear 2/3rd of the registered credits in 1st year (after supplementary/Summer Quarter examinations) to enable him/her to register for the 2nd year, failing which a student repeats the 1st year by registering for the subjects with grades F. The student may also register for some subjects with grade P to improve CGPA;

- a) If after repeating the 1st year, the student fails to clear the required credits (after the supplementary/Summer Quarter examinations), the student shall be asked to leave the Institute;
- b) At the end of 2nd year, a student will have to clear all the 1st year subjects and in addition 2/3rd of the credits of the 2nd year level registered subjects, failing which the student repeats the 2nd year by registering for the subjects with grade F. The student may also register for some subjects with grade P to improve upon his CGPA. 32.4 The same rule applies for promotion from 2nd year onwards;
- c) EAA shall be de-linked from the year repeating policy. The students, however, must complete the EAA components before graduation. EAA shall be, however, treated on par with any other subject as far as Scholarships/ Prizes/Awards/ Dual Degree Assistantships/Registration (and continuation) of Minor/Micro - specialization/ Registration of Additional Subjects are concerned.
- d) As per the current promotion policy, the student has to repeat a complete Academic Year even if he is eligible for promotion at the end of Autumn Semester by clearing the constraining subject. Thus, if the student has cleared the constraining subject/subjects in the Autumn Semester, he/she must be treated as promoted and should be allowed to register for all the eligible academic components of the next year in the Spring Semester. However, if there are other Backlog subjects of the Spring Semester then the student must first register for these.

- e) The candidate earns the degree on completing the prescribed course work and clearing the minimum required credits with a minimum CGPA of 6.00;
- f) The total time (including the period of withdrawal, if any) to earn the degree is limited to 8 years, for 4-year B.Tech. students;

30) Withdrawal from the Institute: A student who has been admitted to a undergraduate degree program of the Institute may be permitted to withdraw temporarily for a period of one semester or more from the Institute on grounds of prolonged illness or acute problem in the family which compelled him/her to stay at home, provided He/she applies to the Institute within 15 days of the commencement of the semester or from the date he/she last attended his/her classes whichever is later, stating fully the reasons for such withdrawal together with supporting documents and endorsement of the father/guardian.

- a) If the Institute is satisfied that, inclusive of the period of withdrawal, the student is likely to complete his requirements for the degree within the time limits specified and that there are no outstanding dues or demands from him/her by the Institute/Hall/Department/ Library/Gymkhana/NCC, may grant permission.
- b) A student who has been granted temporary withdrawal from the Institute under the provisions will be required to pay the tuition fee and other essential fees/charges for the intervening period till such time as his/her name is borne on the Roll List.
- c) A student will be granted only one such temporary withdrawal during his/her tenure as a student of the Institute;
- d) A student who has been granted a temporary withdrawal on medical grounds will be allowed to rejoin and resume his/her studies only after being declared medically fit by the authorized Medical Officer;
- e) **Striking-off the name from the Institute Roll List:** If a student does not register for 3 (three) consecutive semesters, without the approval of the competent authority his/her name will be struck off from the Institute Roll List.

- f) Relaxation: The Senate may, under exceptional circumstances, consider any case of a student having a minor deficiency in respect of any of the requirements stated in these Regulations and relax the relevant provision of these Regulations based on the merit of the case. The grounds on which such relaxation is granted shall invariably be recorded and cannot be cited as precedence.

PS: Since IIPE is a new establishment and that there are no committees yet formed for delegation of various duties and that there is no comprehensive administrative set up, till such time one or two faculty members shall be entrusted with such responsibilities as required from time to time. However, in all the cases the decision of the Advisor – Academics shall be final. Hence these regulations are subject modification to suit the immediate requirements of IIPE.