

# **ACADEMIC REGULATIONS**

for

**B.Tech. (Agril. Engg.)**

**DEGREE PROGRAMME**

**(As per ICAR 4<sup>th</sup> Dean's Committee Recommendations)**



**COLLEGE OF AGRICULTURAL ENGINEERING  
DEDIAPADA  
NAVSARI AGRICULTURAL UNIVERSITY, NAVSARI**

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**COLLEGE OF AGRICULTURAL ENGINEERING, DEDIAPADA  
NAVSARI AGRICULTURAL UNIVERSITY, NAVSARI**

The regulations for the Bachelor of Technology in Agricultural Engineering i.e.,  
B.Tech. (Agril. Engg.) degree in the Faculty of Agricultural Engineering.

**REGULATION NO. 1**

**SHORT TITLE AND COMMENCEMENT**

- 1.1 These regulations may be called "The Regulations for the award of the Bachelor of Technology in Agricultural Engineering i.e., B.Tech. (Agril.Engg.) degree under semester system in the Faculty of Agricultural Engineering".
- 1.2 It shall come in to the force from the academic year 2013-14 for the students admitted to B.Tech. (Agril. Engg.) degree course from that year and onwards.
- 1.3 The nomenclature of degree to be awarded under the regulations shall be Bachelor of Technology in Agricultural Engineering (B.Tech. (Agril. Engg.)) in the Faculty of Agricultural Engineering, at its constituent College of Agricultural Engineering, Dediapada.
- 1.4 The duration of B.Tech. (Agril. Engg.) degree course after 10+2 shall be of four years divided into eight semesters.
- 1.5 The maximum number of candidates to be admitted in first semester of the degree course will be in accordance to the intake capacity decided by the University from time to time.

**REGULATION NO. 2**

**REQUIREMENTS FOR ADMISSION**

- 2.1 Following shall be the requirements for admission to the B.Tech. (Agril. Engg.) degree course:  
The candidate should have passed 12<sup>th</sup> (10+2 system) Science Stream (Group A) with Physics, Chemistry, Mathematics and English subjects from any statutory University/Board in Gujarat State or Examinations recognized as equivalent thereto by the University.

The minimum requirement of marks in science stream (Physics, Chemistry and Mathematics) in theory papers shall be as under:

## Theory

- |    |   |     |
|----|---|-----|
| a. | For Scheduled Castes candidates                           | 35% |
| b. | For Scheduled Tribes candidates                           | 35% |
| c. | For Socially and Educationally Backward Class candidates. | 40% |
| d. | For all other candidates                                  | 40% |
- 2.2 Candidates who passed the Central Board of Secondary Education Examination, Delhi and any other statutory body of GOI from the institutions located in Gujarat State in 10+2 pattern with Mathematics, Physics, Chemistry with English and fulfill the requirements as stated in the Regulation 2.1 shall be admitted on *pro-rata* basis to the candidates passed from the Gujarat Secondary Education Board with the minimum prescribed standard of admission for the Faculty of Agricultural Engineering.
- 2.3 Weightage to the sportsmen/women for admission will be given as under:
- |      |  |      |
|------|--|------|
| I.   | Participation at the International level | 7 %  |
| II.  | Participation at the National level      |      |
|      | (a) Secured 1 <sup>st</sup> position     | 5 %  |
|      | (b) Secured 2 <sup>nd</sup> position     | 3 %  |
|      | (c) Secured 3 <sup>rd</sup> position     | 2 %  |
| III. | Participation at the state level         |      |
|      | (a) Secured 1 <sup>st</sup> position     | 1 %  |
|      | (b) Secured 2 <sup>nd</sup> position     | 0.5% |

The student will get the above weightage once during his/ her University career.

- 2.4 The candidate for admission shall be selected on the basis of merit, which shall be determined by the score at the qualifying examination and GUJCET/JEE and/or any other test as decided by the University from time to time.
- 2.4.1 The merit order shall be decided on the basis of 40 % of GUJCET/JEE marks and 60% of 12<sup>th</sup> Examination marks. However, while calculating the total number of marks, for preparing the merit order list, the marks obtained in the practical in science subjects shall not be taken in the consideration except provided under rules 2.4.2.
- 2.4.2 If there are candidates who have secured equal number of marks in theory of science subjects, the merit order shall be determined by application of criteria as under:

- (a) For candidates who have secured equal marks their merit order shall be decided on the basis of marks obtained in English.
  - (b) Candidates who have secured equal marks in English, their merit shall be decided by total aggregate of external marks in theory and practical in Science subjects.
- 2.4.3 Candidates with maximum of three trials shall be eligible for admission. The application of candidates who have passed Higher Secondary School Certificate examination with more than two additional trials will not be considered for eligibility of admission. [The failure also include drop and absent from qualifying examination for this purpose, non-appearance in the qualifying examination at Higher Secondary School Certificate examination, when due or appearance at the qualifying Examination in part is treated at par].
- 2.5 The minimum age requirement of a candidate on thirty first of December of the year of his first admission to the degree course shall be 17 years. The age limit may be relaxed in exceptional cases by the admission committee.
- 2.6 The University shall reserve seats for admission of the candidates as specified below provided that nothing in this regulation shall require the university to admit candidates larger in number or with academic and other qualifications lower than those prescribed except in situation as in 2.1.
- (a) For candidates belonging to the scheduled castes, scheduled tribes and socially and educationally backward classes of the Gujarat State as may be required by the Gujarat State Government from time to time, which at present is as follows:  
  
Twenty two percent of the total seats at the stage of admission shall be reserved for backward class candidates. Out of 22 % seats, 7% shall be earmarked for the candidates belonging to scheduled castes and the remaining 15% shall be earmarked for candidates belongs to scheduled tribes, subject to condition those who are able to secure admission on merit shall not however, be counted against the seat reserved for them. Further, it is provided that reciprocal adjustment in the above specified 7 % and 15 % seats between the two groups will be made, if the need arises on account of vacant seats due to less number of applications in one group and shortage of seats due to more number of applications of eligible candidates in the other group. If applications from backward class candidates are more than the reserved seats earmarked for them as above,

admission will be given to them strictly on *inter se* merit within each of the two groups.

- (b) As required by the Government of Gujarat, 27 % of the total seats shall be reserved for those candidates who fall under the category of socially and educationally backward communities as defined by the Baxi Commission & Mandal Punch.

A candidate availing him / her self of reserved seat as above shall be required to produce a certificate that he / she belongs to a particular group of backward class from the competent authority of the State.

The candidate belonging to SEBC should produce the certificate showing that he/she does not belong to creamy layer sections, issued during current year in which admission is sought from the competent authority, otherwise he/she will not be considered under the SEBC category. SEBC candidates, who are able to secure admission on merit shall not however, be counted against the seats reserved for them.

- (c) Extra 15 % of the total number of seats shall be reserved for the candidates nominated by the Indian Council of Agricultural Research, New Delhi on the basis of All India entrance test subject to the conditions that they fulfill the minimum requirement for admission.

- (d) Foreign eligible students seeking admission to B.Tech. (Agril.Engg.) programme shall have to route their application through their respective Embassy at New Delhi or respective Indian missions abroad to the Government of India / ICAR, New Delhi and their candidature shall be considered only if they are sponsored by their respective National Government and / or by the Government of India / ICAR. The candidate will be admitted under reserve quota for ICAR / Government of India sponsored candidates as under rule 2.8 (c). However relaxation in eligibility criteria for a foreign student may be granted by the Vice-Chancellor on recommendation of the Government of India / ICAR New Delhi. Application of a foreign student sponsored by the Foreign Agency who has signed MOU (Memorandum of Understanding) with Navsari Agricultural University, Navsari shall be considered as a special case, outside the reserved quota, with or without relaxation in the eligibility criteria by the Vice-Chancellor.

- (e) Three percent seats are reserved for the disable (Physically handicapped) candidates as per the conditions stated as under:

- (i) Admission will be given to physically handicapped candidates strictly as per the category they belong under 3 % reserved seats for them in such a way that it should not exceed 3 %.

- (ii) A candidate having locomotor disability of one leg and partial arm shall be eligible to apply for admission to course, subject to the certificate from the Civil Surgeon/ Medical Superintendent of the Government hospital based on the opinions of the concerned specialist that the locomotor disabled candidate is in a position to undertake the course and perform the functions of the concerned field. The admissions will be on the basis of intense merit only.
- (iii) Physically handicapped candidate must possess the prescribed minimum essential education requirement and qualifying marks in the examination taken, as per the category he/she applied.
- (f) One additional seat shall be reserved for Parsi Community, who are domicile of Gujarat State. This seat will be non-transferable.
- (g) *Two additional* seats are reserved for Kashmiri migrants as per policy provided as under.
  1. Students may be granted following relaxation while giving admission
    - (i) Extension in date of admission by about 30 days.
    - (ii) Relaxation in cut-off percentage up to 10% subject to minimum eligibility requirement.
    - (iii) Waiving of domicile requirements.
    - (iv) Facilitation of migration in second and subsequent years.
    - (v) Exempted from GUJCET.
  2. The admission may be considered to such students provided that the nomination is received from Secretary, Agriculture and Co-operation Department, Government of Gujarat.
  3. The student shall have to produce certificate from Deputy Commissioner of respective state where he has been migrated from Kashmir along with Registration Number and ration card.
  4. This will be applicable till the condition in J & K is normalized.
- (h) **NRI / PAYMENT SEATS**  
 Twenty Seats are reserved as NRI / Payment Seats with the conditions stated below.
  - i. The fees for NRI seat will be 3600 US Dollars for each semester plus normal fees.
  - ii. The fees on payment seat will be Rs.28,000/- for each semester plus normal fees.
  - iii. The unfilled NRI seats will be filled up as payment seats.
  - iv. The candidate seeking admission on NRI / Payment seat shall have to pay fees for first two semesters at the first instance.
  - v. A candidate having passed HSCE or equivalent examination with PCM along with English as compulsory subject will be eligible for admission upon NRI / Payment seat.

- vi. The candidates on NRI / Payment seats will be selected for admission strictly on merit based on the marks obtained by them in the HSCE and they being medically / physically fit and or passed any test as decided as per relevant norms prescribed by the University for admission to other candidates as stated under regulations. However, first preference will be given to the candidate of Gujarat State.
  - vii. The candidature for foreign students shall be considered only if they are sponsored by their respective National Government and or by Government of India / ICAR.
- 2.7 No candidate availing any of reserved seats shown under 2.6 or enjoying any concessions in admission requirements shall, however, be not eligible to get more than one advantage of relaxation in minimum qualification at the same time.
- 2.8 In the event of some or all reserved seats specified under 2.6 a, b, c remaining vacant seats due to less number of applications, for eligible candidates, they shall be considered as open seats and shall be filled in the order of merit from the general list of candidates.
- 2.9 About 10 % extra candidates may be admitted over the total seats at the stage of admission from the merit list with a view to balance the likely shortfall in the total seats on account of candidates who may leave their studies after paying fees.
- 2.10 The candidates will apply to the Registrar of the University and the admission will be finalized along with other Agricultural Engineering Colleges in the State. Centralized admission committee consisting of the Principals / Deans of Colleges of Agricultural Engineering and Technology and the Registrar will finalize the admission as per the preferences strictly on merit and as per prevalent rules laid down by the University.
- 2.11 Candidates called for admission will be interviewed by the authorities for physical fitness, verification of original mark sheets, certificates etc.
- 2.12 Nothing in these regulations shall affect the enrolment of a candidate for the B. Tech. (Agril. Engg.) degree course already made under the regulations hereby superseded.
- 2.13 Candidate is not eligible for readmission once his/her registration is cancelled in the previous year/s if debarred from the College/ University on account of indiscipline / misconduct.



## REGULATION NO. 3

### REGISTRATION

- 3.1 A candidate selected for admission shall become an enrolled student of the University only on completion of his / her first registration in person, which consists of the following steps:
- (i) Payment of fees in person
  - (ii) Submission of original mark sheets and necessary certificates.
  - (iii) Orientation
  - (iv) Registration for courses
- 3.2 Selected candidates shall report at the college on the date fixed by the University for their First Registration but not later than 7 days from commencement of the classes.
- 3.3 The admission of any candidate who fails to report on the fixed date as in 3.2 shall stand cancelled and another candidate on the waiting list may be admitted to the vacant seat so created.

It is, however, provided that a candidate who is not in a position to report for the first registration on the date fixed for him due to unavoidable circumstances may obtain provisional registration by paying fees by post or through messenger on or before the date fixed for his/her registration. Such a candidate shall be required to complete the remaining steps of registration within one week from the date of commencement of the semester, failing which his/her admission shall stand cancelled.

- 3.4 (i) Renewal of registration in the case of continuing students will consist of the following steps to be completed within the first two days of the beginning of semester failing which a fine of Rs. 10 per day for the period of first 10 days shall have to be paid by the students. After this period, registration shall be cancelled.
- (a) Payment of fees in person
  - (b) Registration for courses.
- (ii) Late registration only in very exceptional cases with fine will be permitted by the Principal for a maximum period of next ten days (fine of Rs. 20 per day) after which, the admission of those who failed to get registered will be treated as cancelled except for those whose payment of fees has been guaranteed by either the Government or *bonafide* institutions or similar bodies.
- (iii) The Principal may at his / her discretion, however, grant exemption from payment of fine for late registration as permitted under 3(ii) above, only in special cases.

(iv) An under graduate student in faculty who has successfully completed all the requirements of 1<sup>st</sup> semester of degree course may be admitted within a period of three years at his own risk at the equivalent semester from which he/she gave up his/her studies provided that no disciplinary action should have been taken against such student during his career in the college. This period of absence will be calculated from the date he/she leaves the college. The case of such students needs to be placed before equivalence committee appointed by the Dean / Principal of the college and on the basis of report of this committee, the action will be given for revival of registration to the students who gives up the studies. Further this provision shall be applied if the course curriculum was in existence in which he studied.

3.5 A student enrolled in the university will be given his registration number to be used along with his/her name in all the concerned academic documents.

3.6 An identity card shall be issued to every enrolled student. It shall be carried by him/her and shown when required. In case the identity card is lost, a new one shall be issued on payment of fees as prescribed by the university from time to time.

#### REGULATION NO. 4

#### FEES, DEPOSITS etc.

4.1 The fees, deposit etc. payable by the student of the Faculty of Agricultural Engineering for the B. Tech. (Agril. Engg.) degree course shall be prescribed by the University from time to time.

The present fee structure is as below:

S. No.	Fees	U.G. Programme in B.Tech. (Agril. Engg.)
A. Fees, deposits advances for all new students to be paid once at the time of registration		
1.	Cautious Money Deposit (Refundable)	1000
2.	Hostel Deposit (Refundable) for Resident students	1000
3.	Mess Deposit (To be adjusted in the food bill of the last month of the academic year)	1500
4.	Electric Charges	2000
5.	Identity Card	50
6.	Test fee for thesemia	120
	<b>Total- A</b>	<b>5670</b>
B. Fees to be paid annually in the beginning of odd semester by all students		

1.	Uni. Medical Exam.	100
2.	Magazine Fee	100
3.	Student Aid Fund	50
4.	General Amenity	200
	<b>Total- B</b>	<b>450</b>
C. Semester fees to be paid at beginning of each semester		
1.	Registration fee	500
2.	Tuition fee*	3500
3.	Library fee	500
4.	examination fee	500
5.	Gymkhana fee	200
6	Cultural activities	200
7	Laboratory fee	500
8	Hostel fee*	1500
9	Evaluation Report fee	150
	<b>Total- C</b>	<b>7550</b>
<b>TOTAL - (A+B+C)</b>		<b>13670</b>

\* Exemption for Girl students

## REGULATION NO. 5

### ACADEMIC REQUIREMENT

- 5.1 An enrolled candidate, in order to earn his/her B. Tech. (Agril. Engg.) degree of the University shall have to complete satisfactorily the prescribed number of course credits including those acquired by the approved transfer, and shall have to earn an overall grade point average (O.G.P.A.) of 5.00 and above for all courses.

Further, the syllabus and the total number of credits shall be as approved by the Academic Council from time to time on due recommendation by the Board of Studies of the Faculty of Agricultural Engineering and Technology.

- 5.2 A course credit means 60 minutes of theory lecture and two to three hours of tutorial / laboratory/ field / plant practical per week in the semester for students admitted in year 2013-14 and onwards. The course of study includes (1) Humanities (2) Basic Science & Agricultural Science (3) Basic Engineering & Practice (4) Agricultural Engineering subjects (5) Cafeteria courses (6) Field / In-Plant training and study tour (7) Physical education / N.C.C./ N.S.S, etc. The distribution of courses and credits for each semester is given in Statement –I.
- 5.3 At the end of the seventh semester, there will be field / in-plant training of 25 credit hours which will include practical training at the institution, training in one (4 months) / two (2 months each) Industrial Units and educational tour. Each student has to submit a tour report immediately on completion of tour.

## **REGULATION NO. 6**

### **SYSTEM OF TEACHING**

- 6.1 The semester system of teaching and continuous evaluation of a student will be as follow:

The academic year is divided into two semesters. The duration of semesters will be of about 20-22 weeks (minimum 110 working days, consisting of 95 instructional days and 15 examination days).

Under this system there will be eight semesters during which the student shall complete the requirements of course credits. The duration of semester can be reduced by Hon. Vice Chancellor in exigency circumstance.

- 6.2 The semester in a year will normally be, as under, the exact dates of which will be announced in an academic calendar prepared by the committee of the Principals / Dean.

Odd semester - from July to December.

Even Semester - from January to June.

Suitable adjustment will be made to accommodate Diwali holidays / summer vacation, which will be notified in the academic calendar.

- 6.3 Each student will be assigned to an advisor by the Dean / Principal of the college during the first semester. The advisor will help the student in carrying out the programme of his studies. Students are expected to keep constant touch with their advisors to enable latter to watch their progress and guide them along right lines.

- 6.4 Grading and evaluation will be in "Ten Point Grade System".

- 6.5 The medium of instruction and examination will be in English.

## **REGULATION NO. 7**

### **CURRICULUM AND COURSES**

- 7.1 A student enrolled in the University for the B.Tech. (Agril.Engg.) degree programme shall be required to pursue the prescribed curriculum and courses.

- 7.2 The curriculum consists of a series of courses designed to provide training to meet the requirements for the award of B.Tech.(Agril.Engg.) degree.

- 7.3 A course includes lecture and/or practical classes and work experience if any, in a particular subject covered in a semester.
- 7.4 A student shall be required to earn the credits specified for the degree programme inclusive of those for physical education, N.C.C./ N.S.S., field / in-plant training and educational tour, etc.
- 7.5 In pursuing course, a student will be required to attend lecture classes and/or perform practical in laboratory / field / plant, etc. He/she shall also put required efforts in library work and shall submit the assignments, reports, etc. as per instructions from the course teachers.
- 7.6 A student shall have to obtain at least 50 per cent marks aggregate (5.00 grade point) and not separately in the theory and practical examinations of internal as well as semester end examination to clear the course.  
Further, the student shall have to earn over all grade point average (OGPA) of 5.00 to earn the degree.
- 7.7 A student securing less than 50% marks (5.0 grade point) in a course, shall be considered to have failed and shall have to clear the same as mentioned in 7.6 above for which maximum of only three additional trials shall be given, failing which his / her admission shall stand discontinued.
- 7.8 When a student clears a course(s) by more than one trial, the grade point (less than 5.00) obtained by him/her previously will be replaced by the grade point subsequently obtained by him in the respective course(s) for calculating the O.G.P.A. for the award of the degree. All the grade points below 5.00 and grade such as "I" and "US" will be shown in his / her evaluation report / transcript and will be considered for calculating O.G.P.A. Fail, "I", "US" will not be considered for determining merits for the award of scholarship, medals, etc.
- 7.9 (i) The minimum percentage of attendance required to be completed by a student in each course shall be 75 per cent of the total credit hours of the academic calendar both in respect of theory and practical separately.
- (ii) A condonation up to five per cent may be allowed by the Principal on the recommendation of the concerned teacher / professor in a special case.
- (iii) An additional five per cent may be allowed by the Vice-Chancellor on the recommendation of the Principal of the college concerned. The decision of the Vice-Chancellor shall be final.
- (iv) Student, who are required to forgo classes/internal examination due to their participation in sports, athletics and other co-curricular activities at inter collegiate, inter university, inter state or national level shall be counted as present for the purpose of

calculating percentage of attendance and will be allowed to give missing internal examination (s) if any.

- (v) A student admitted to Hospital on account of serious sickness / accident, shall be allowed the benefit of attendance and also to give missing internal examination (s) if any for corresponding number of day depending upon the nature of illness by the concerned Principal of the college after he/she produced a medical certificate from the Medical officer of the University or from a Medical officer of any Government hospital.
- (vi) In any circumstances including the benefits of medical certificate, a student whose attendance in a particular course is less than Fifty per cent on an average of both theory and practical shall be deemed to have dropped the course. He / she will not be allowed to appear at the final semester end examination of the concerned course(s) and shall be awarded "I" (incomplete) grade and he / she will have to repeat the course by rejoining the course as and when offered in the subsequent semester.

**REGULATION NO. 8**

**SYSTEM OF EVALUATION**

8.1 The mode of evaluation through the different type of examination and weightage for each course shall be as under :

Nature of Evaluation	Courses taught in theory only	Courses taught in practical only	Courses taught in theory & practical both	
			Theory	Practical
1.Continuous evaluation through assignment, quizzes, periodical tests, etc. during the semester by the course teacher.	50 %	50 %	20 %	---
2.Practical evaluation at the end of course work by the course teacher.	---	50 %	---	30 %
3. Semester end evaluation at college level.	50 %	---	50 %	---

8.2 EVALUATION SHALL BE MADE AS SHOWN BELOW

- (i) The number and mode of assignments, tests etc., shall be determined by the committee of Dean / Principal from time to time.
- (ii) A student shall not be permitted to appear at the semester end examination of a particular course(s), if the concerned teacher/ teachers report that his/her academic performance is not satisfactory and/or that he / she has not satisfactorily carried out the laboratory, field / in- plant training, practical during the semester and /or he / she has not been regular in attending classes. His / her absence from the

semester classes. His/her absence from the semester end examination on this account shall be considered trial and will have to repeat that course. He/ she will be eligible to take the remaining three trials only after repeating the course(s) as and when they are offered.

- (iii) A student shall not be permitted to appear in the semester end examination of a particular semester if he/ she fails to satisfactorily complete his/her field / in-plant training and / or educational tour etc.
- 8.3 The evaluation made by the teachers/examiners in all examinations of a course shall be recorded in total score, score/weighted score and grade point. The following marking shall also be shown by the teachers / examiners / university in the students' performance evaluation report.

Grade	Significance	Value	Remarks
Ab	Absence	-	For those students who do not appear in Internal/External Examination without giving any reason.
W	Withdrawn	-	For those who do not appear at semester end examination due to unforeseen circumstances as certified by the Dean/ Principal (in very exceptional cases only).
I	Incomplete	-	Candidates not permitted to appear at the semester end examination. As per item 8.2 (ii).
R	Repeat	-	To be shown by university in evaluation report and transcript in case of course repeated and cleared.
S	Satisfactory	-	For NCC, NSS, Physical education intensive,
US	Unsatisfactory	-	non-credit courses and study tour.

Note: Grade Point "S" or "US" shall have no significance in calculating G.P.A. / C.G.P.A. / O.G.P.A.

- 8.4 A student who fails to appear in any of the examinations (at least one hourly theory test, semester end examination) either in theory and / or in practical shall be marked "Ab" (absent) and the value of "Ab" is to be taken as zero. He / she shall be given grade(s) in such course(s) with zero value for the absence in the examination in which he /she fails to appear.
- (i) A student shall not be permitted to appear in the semester end examination of a particular course / courses if he / she fails to appear in at least in one hourly theory test and in practical test / examination of internal evaluation as well as not submitted the examination form along with fees within a prescribed time limit.
- Explanation : Internal evaluation means – One hour theory tests and practical examinations as considered by the Principal of the college.
- (ii) It is compulsory for the student to appear in the semester end examinations (both theory and practical) to earn grade(s) in the

course(s), except he / she is not permitted to appear in the semester end examination.

- 8.5 There shall be no make up examination for the semester end examination.
- 8.6 The students obtaining 5.00 or more grade point in a course shall be deemed to have cleared that course and those obtaining less than 5.00 grade point or "W" or "Ab" grade shall be required to clear in that course subsequently.

It will be obligatory for the students to earn "S" grade for all non-credit courses in order to be eligible for the award of the degree.

- 8.7 Grade point average (G.P.A.) is the sum of products of credits of the courses and the respective grade points obtained in these courses divided by the total number of credits of the different courses offered in the semester.

The cumulative grade point average (C.G.P.A.) is the weighted average of G.P.A. of all the semester attended, the G.P.A. being weighted by the credit loads of the respective semester.

The cumulative grade point average obtained at the end of the final semester is the overall grade point average (O.G.P.A.) of the candidate.

$$\text{G.P.A.} = \frac{(\text{Credits} \times \text{Grade Points})}{\text{Total Credits}}$$

- 8.8 The award of classes will be based on the O.G.P.A. (Overall Grade Point Average) obtained by the candidates and will be governed by the following criteria.

**Grade point**

Less than 5.00

5.00 - 5.49

5.50 - 6.49

6.50 - 7.49

7.50 and above

**Class**

Fail

Pass class

Second class

First class

First class with distinction

The class earned by a candidate shall be indicated in his degree certificate.

- 8.9 Verification of the grade awarded will be permitted by a Registrar on payment of a fees as prescribed by the University.
- 8.10 Maximum time limit to obtain degree of B.Tech. (Agril. Engg.) after first registration is 8 years.



## REGULATION NO. 9

### CONTINUATION OF AN ENROLLED STUDENT

Continuation of a student as an enrolled student of the university shall depend on the following conditions.

- (i) Satisfactory academic performance.
- (ii) Satisfactory conduct and disciplined behaviour.
- (iii) Satisfactory completion of the N.C.C., N.S.S. or physical education wherever these are compulsory.
- (iv) Satisfactory health and physical capacity to continue the academic programme and completion of the medical examination, if prescribed.
- (v) Timely payment of university dues.

## REGULATION NO. 10

### ACADEMIC PROBATION

- 10.1 A student who fails to clear one or more courses in semester shall be placed on academic probation until he / she clear the same. Barring withdrawal, absence for any reason from the semester end examination of any course(s) or non-submission of examination form along with fees shall be counted as a trial with failure in the said course/courses.
- 10.2 A student on academic probation as above, shall be promoted to the next semester and will also be permitted to clear the courses in which he/ she has failed in the previous semester at the previous semester end examination as a second trial.
- 10.3 A student who failed in more than **four** courses shall not be promoted to the next semester. He/she only be promoted to next semester after clearing all the said courses.
  - (i) If a student on academic probation fails to clear any course at the second trial, he/she shall not be promoted to the next semester but may be permitted to register for the semester in the course/in which he/she has failed and/ or withdrawn, to enable him / her to repeat the studies of the said course(s) and clear the same at the third trial.
  - (ii) In case of the student failing in only one subject after second trial, the make up examination i. e. 3<sup>rd</sup> trial for that subject should be conducted within one month from the declaration of the result and if the student clears the subject, he/she will be promoted to next semester. If in case such student fails, he/she will be dropped.
- 10.4 If a student on academic probation fails to clear any course(s) even after third trial, he / she may be permitted to clear the same at the fourth and the last trial, failing which he / she shall stand discontinued as an enrolled student of the university.

- 10.5 A student who is not permitted to appear at the semester end examination of a course, as per clause under 8.2. (ii), shall be required to repeat the course/ courses by registering in the semester in which those course are offered and he/ she be subsequently permitted to avail of a maximum of three trials to clear the same, failing which he / she shall be discontinued as an enrolled student of the university.

#### **REGULATION NO. 11 :**

Anti Ragging Committee and Squad are functioning at the University, any one found guilty will be suitably punished, FIR will be lodged against a student(s) abusing fellow student(s).

#### **REGULATION NO. 12**

##### **USE OF UNFAIR MEANS :**

- (a) A student found using unfair means or copying during an examination shall be liable to be expelled from the examination in the first instance by the conductor and shall not be permitted to appear in the remaining and/or practical examinations. The conductor shall report such cases to the Controller of Examination.
- (b) The Examination Committee shall have the power to impose any other punishment for misbehavior or misconduct of examinees.
- (c) The Examination Committee shall examine the cases of unfair means by the personnel in the conduct of examinations and shall recommended to the Academic Council for suitable action.

#### **REGULATION NO. 13**

##### **STUDENTS' DISCIPLINE**

Student shall abide by any special or general rules made by the university and the college authorities in regard to their conduct within the premises of the university and the college and outside. It shall be always presumed that the guardians of the students have agreed that their wards shall comply with the rules. Failure to comply with these rules will make the concerned students liable for disciplinary action as per students' disciplinary rules as prescribed by the university from time to time.

##### **ELIGIBILITY FOR DEGREE**

A student is deemed to have completed the requirement for graduation and is eligible for the award of B.Tech. (Agril. Engg.) degree, if

- (a) He / she has satisfied all the rules of evaluation as prescribed by the university.

- (b) He / she has undertaken all the courses as required in each semester and has obtained required grade points in the concerned courses.
- (c) He / she has satisfied the requirements prescribed by the Head of the Departments including training programme and study tour, if any.
- (d) He / she has paid all fees prescribed by the university.
- (e) There is no case of in-discipline pending against him/her.
- (f) He / she has satisfactorily completed the training of NCC, NSS or physical education, field / in-plant training wherever necessary.

#### **REGULATION NO. 14**

##### **APPLICABILITY**

The students admitted during the year 2008-09 and thereafter shall be governed by these rules superseding all existing rules and regulations governing conduct of B.Tech. (Agril.Engg.) programme from the day they are approved by the Academic Council. However, the students registered prior to the approval of these rules shall be governed by the rules and regulations in force at the time of their registration.

#### **REGULATION NO. 15**

##### **INTERPRETATION**

For the interpretation or implementation of any provision of the regulations for conduct of B.Tech. (Agril.Engg.) degree programme, the Registrar of the Navsari Agricultural University may issue necessary orders as and when needed, with prior approval of the Vice-Chancellor in consultation with the Principal/Dean.

## STATEMENT- I

### SEMESTER WISE COURSE DISTRIBUTION FOR B.Tech. (Agril. Engg.) DEGREE

#### Semester - I

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Engineering Mathematics-I	Maths (E)-101	3 (2 + 1*)
2	Engineering Physics	Phy (E)-101	3 (2 + 1)
3	Engineering Chemistry	Chem (E)-101	3 (2 + 1)
4	Workshop Practice	FMP - 101	1 (0 + 1)
5	Surveying and Leveling	RE - 101	3 (1 + 2)
6	Engineering Drawing	FMP - 103	2 (0 + 2)
7	Environmental Science	ES - 101	3 (3 + 0)
8	Electrical Circuits	APE - 101	3 (2 + 1)
9	English	Eng (E) - 101	2 (1 + 1*)
	<b>Total</b>		<b>23 (13+10)</b>

#### Semester - II

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Engineering Mathematics-II	Maths (E)-102	3 (2 + 1*)
2	Computers Programming and Data Structures	APE - 102	3 (1 + 2)
3	Applied Electronics and Instrumentation	RE - 102	3 (2 + 1)
4	Agriculture for Engineers	Agri (E) - 102	4 (3 + 1)
5	Workshop Technology	FMP - 102	3 (2 + 1)
6	Engineering Mechanics	FMP - 104	3 (2 + 1)
7	Thermodynamics and Heat Engines	FMP - 106	4 (3 + 1)
	<b>Total</b>		<b>23 (15+8)</b>

\* Tutorials

### Semester - III

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Engineering Properties of Biological Materials and Food Quality	APE - 201	3 (2 + 1)
2	Soil Mechanics	SWE - 201	3 (2 + 1)
3	Fluid Mechanics	SWE - 203	3 (2 + 1)
4	Farm Machinery and Equipment - I	FMP - 201	3 (2 + 1)
5	Farm Power	FMP - 203	3 (2 + 1)
6	Watershed Hydrology	SWE - 205	3 (2 + 1)
7	Engineering Mathematics-III	Maths(E)-201	3 (2 + 1*)
8	Agribusiness Management and Trade	Eco (E)- 201	3 (3 + 0)
	<b>Total</b>		<b>24 (17+7)</b>

### Semester - IV

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Farm Machinery and Equipment - II	FMP - 202	3 (2 + 1)
2	Renewable Energy Sources	RE - 202	3 (2 + 1)
3	Soil and Water Conservation Engineering	SWE - 202	3 (2 + 1)
4	Irrigation Engineering	SWE - 204	4 (3 + 1)
5	Crop Process Engineering	APE - 202	3 (2 + 1)
6	Theory of Machines	FMP - 204	3 (2 + 1)
7	Heat and Mass Transfer	APE - 204	2 (2 + 0)
8	Database Management and Internet Applications	APE - 206	2 (0 + 2)
9	Field Operation and Maintenance of Tractors and Farm Machinery - I	FMP-206	1 (0 + 1)
	<b>Total</b>		<b>24 (15+9)</b>

\* Tutorials

### Semester - V

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Machine Drawing and Computer Graphics	FMP - 301	3 (1 + 2)
2	Machine Design	FMP - 303	3 (2 + 1)
3	Dairy and Food Engineering	APE - 301	3 (2 + 1)
4	Tractor Systems and Controls	FMP - 305	3 (2 + 1)
5	Electrical Machines and Power Utilization	APE - 303	3 (2 + 1)
6	Field Operation and Maintenance of Tractors and Farm Machinery - II	FMP-307	2 (1 + 1)
7	Strength of Material	RE - 301	3 (2 + 1)
8	Ground Water, Wells and Pumps	SWE - 301	3 (2 + 1)
	<b>Total</b>		<b>23 (14+9)</b>

### Semester - VI

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Agricultural Structures and Environment Control	APE - 302	3 (2 + 1)
2	Drying and Storage Engineering	APE - 304	4 (3 + 1)
3	Design of Structures	RE - 302	3 (2 + 1)
4	Drainage Engineering	SWE - 302	2 (1 + 1)
5	Soil and Water Conservation Structures	SWE - 304	3 (2 + 1)
6	Refrigeration and Air Conditioning	FMP- 302	3 (2 + 1)
7	Entrepreneurship Development and Communication Skills	AEE - 302	3 (2 + 1*)
	<b>Total</b>		<b>21 (14+7)</b>

\* Tutorials

### Semester - VII

S. No.	Course Name	Course No.	Credit (L + P / T)
1	Project	AE - 401	6
2	Seminar	AE - 403	1
3	Renewable Energy Technology	RE - 401	3 (2 + 1)
4.	<i>Student will have to take minimum of 15 credits courses from the following Cafeteria Courses :</i>		15
	1. Food Packaging Technology	APE - 401	3 (2 + 1)
	2. Design and Maintenance of Greenhouse	RE - 403	3 (2 + 1)
	3. Waste and Byproduct Utilization	APE - 403	2 (1 + 1)
	4. Development of Processed Products and Equipments	APE - 405	3 (2 + 1)
	5. Food Processing Plant Design and Layout	APE - 407	2 (1 + 1)
	6. Micro Irrigation System Design	SWE - 401	3 (2 + 1)
	7. Watershed Planning and Management	SWE - 403	3 (2 + 1)
	8. Minor Irrigation and Command area Development	SWE - 405	3 (2 + 1)
	9. Gully and Ravine Control Structures	SWE - 407	3 (2 + 1)
	10. Remote Sensing & GIS Applications	SWE - 409	3 (2 + 1)
	11. System Engineering	SWE - 413	3 (3 + 0)
	12. Reservoir and Farm Pond Design	SWE - 411	3 (2 + 1)
	13. Tractor Design and Testing	FMP - 401	3 (2 + 1)
	14. Hydraulic Drive and Controls	FMP - 403	3 (2 + 1)
	15. Farm Power and Machinery Management	FMP - 405	3 (2 + 1)
	16. Human Engineering and Safety	FMP - 407	2 (1 + 1)
	17. Production Technology for Agril. Machinery	FMP - 409	3 (2 + 1)
	18. Mechanics of Tillage and Traction	FMP - 411	3 (2 + 1)
	19. Environmental Engineering	RE - 405	3 (2 + 1)
	20. Biomass Management for Fodder and Energy	RE - 407	2 (1 + 1)
	<b>Total</b>		<b>25</b>

### Semester -VIII

Student will undertake in-plant training of 25 credits hours which will include practical training at the Institution, training in one (4 months) / two (2 months each) Industrial Units and Educational tour of 21 Days.	AE (SWE) -402	10
	AE (FMP /APE/ RE) - 404	15
<b>Total</b>		<b>25</b>
<b>Grand Total</b>		<b>188</b>

**Experiential Learning:** The experiential learning is intended to build practical skills and entrepreneurship among the graduates with an aim to deal with work situations and for better employability and self-employment. It will involve setting-up of model plans for food processing and value addition for product diversification, setting up of workshops for manufacturing, operation and maintenance of farm machinery and equipment, maintenance and custom hiring of farm machinery and equipment. Thus, besides in-plant training, two hands-on training programme, each of six weeks duration during summer breaks of second year and third year would be required to be completed by every student.

Performance of the students in the training programme be evaluated based on: (a) work quality, (b) acquired knowledge and expertise, (c) attendance, (d) maintenance of records (e) report, (f) demonstration and presentation in seminar, and (g) work outcome.

The **suggested areas** for experiential learning are as follows:

1. Fabrication of marketable tools and implements  
Facility required - Production workshop
2. Processing of agri-produce  
Facility required - Agro-processing centre  
- Pilot plant for processing and packaging of selected grain/horticultural crop
3. Custom hiring of package of farm equipment  
Facility required - Tractor and set of farm implements

**Legend :**

Cr = Credit

L = Number of lectures per working week.

P = Number of practicals per working week

T = Number of tutorials per working week.

**Credit :** One credit means one lecture of 1 hour or 2 hours of tutorial or 2 to 3 hours of practical per working week.

**Any one**

Physical education or NCC or NSS First and Second Semester

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