



SAGI RAMA KRISHNAM RAJU ENGINEERING COLLEGE (AUTONOMOUS)

(Approved by AICTE, New Delhi, Affiliated to JNTUK, Kakinada)

Accredited by NAAC with 'A+' Grade, Accredited by NBA.

Recognised as Scientific and Industrial Research Organisation

SRKR MARG, CHINA AMIRAM, BHIMAVARAM – 534204 W.G.Dt., A.P., INDIA

Guidelines for B. Tech. Minors in Engineering (Applicable from the Academic Year 2023-24 (R23 Regulations))

I. INTRODUCTION

Looking to global scenario, engineering students should have knowledge of subjects from other branches and some advanced subjects of their respective branch in which they are perusing the degree. To complement the same, Institute has decided to take an initiative from Academic Year 2023-24 (R23 Regulations) by introducing Minors to the students enrolled in B. Tech Program. This gives a provision to the students to pursue Minors other than the discipline in which student got admitted. An aspiring student can choose the courses and laboratories in any other discipline and can get a Minor Degree in the chosen specialization in addition to regular B. Tech Degree. This way undergraduates are not restricted to learn about courses only in the discipline they get admitted to, but can choose courses of their interest to later on take up a career path of their liking. The students taking up a minor course will get additional credits.

A student has to acquire 18 more credits, in addition to 160 credits required, for the award of the minor by fulfilling at least THREE credits must be earned from NPTEL/SWAYAM MOOC Course and the remaining 15 credits by doing FIVE Theory/Integrated courses of 03 credits each (or) Four Theory courses of 03 credits each along with 2 Laboratory Courses of each 1.5 Credits either through MOOCS/Regular. The department concerned will determine the required courses for award of minor. The subjects in minor programme would be a combination of mostly core and some electives.

II. OBJECTIVES

The objectives of initiating the minor certification are:

- To diversify the knowledge of the undergraduates.
- To make the undergraduates more employable.
- To have more educational and professional skills after the completion of his undergraduate courses.
- To give a scope to specialize students in other streams of engineering in addition to the ones they are currently pursuing.

III. Applicability and Enrolment

- To all B.Tech (Regular and Lateral Entry) students admitted in Engineering & Technology.
- There is no limit for total number of seats offered for Minors Degree.
- There shall be no limit on the number of programs offered under Minor. The minor programs in emerging technologies are based on expertise in the respective departments and may also be offered in collaboration with the relevant industries/agencies.

- (d) If a minimum enrolments criterion is not met, then the students may be permitted to register for the equivalent MOOC courses as approved by the concerned Head of the department in consultation with BoS.
- (e) For applicability of minor, both regular B Tech and minor courses shall be successfully completed.
- (f) Transfer of credits from a particular minor to regular B. Tech or another major degree and vice-versa shall not be permitted
- (g) It may be noted that both regular degree and Minors degree are to be completed in 4 Years for Regular students and 3 Years for lateral entry admitted students, without any backlog history.

IV. Entry level

- (a) The B. Tech students (both Regular and Lateral Entry) pursuing a major degree programme can register for minor at their choice in any other department offering minor from IV semester onwards.
- (b) Students registering for minor shall select the subjects from other branches. For example, if a student pursuing major degree in Electrical & Electronics Engineering shall select the subjects specified for minor in Civil Engineering and he/she will get major degree of Electrical & Electronics Engineering with minor of Civil Engineering.
- (c) Student pursuing major degree in any engineering branch is eligible to register for minor in any other engineering branch. However, students pursuing major degree in a particular Engineering are not allowed to register for minor in the same engineering branch.
- (d) Separate CGPA shall be shown on semester and final transcripts of regular B. Tech and minor.
- (e) Students shall be permitted to select a maximum of two subjects per semester from the list of subjects specified for minor.
- (f) Minor shall not be awarded at any circumstances without completing the regular major B.Tech programme in which a student got admitted
- (g) If a student is detained due to lack of attendance, he/she shall not be permitted to register the courses of minor
- (h) Students completed their degree shall not be permitted to register for minor

V. Structure of Minor in B. Tech

- (a) The student shall earn additional 18 Credits for award of minor from other branch/department/discipline registered for major degree.
- (b) Students can complete minor courses either in the college or in online from platforms like NPTEL/SWAYAM etc.
- (c) The overall attendance in each semester of regular B.Tech courses and minor courses shall be computed separately
- (d) Student having less than 65% attendance in minor courses shall not be permitted for appearing “Minor course(s) end semester examinations”.
- (e) A student detained due to lack of attendance in a regular B. Tech programme shall not be permitted to continue minor programme
- (f) The teaching, examinations (internal and external) and evaluation procedure of minor courses offered in offline is similar to regular B. Tech courses
- (g) The students may choose theory or practical courses to fulfill the minimum credit requirement.

- (h) The students may be allowed to take maximum of two subjects per semester pertaining to their minor
- (i) Students shall not be permitted to register for minor degree after completion of VI semester.
- (j) The students are permitted to opt for only a single minor course in his/her entire tenure of B.Tech (Engineering)
- (k) The students registered for B.Tech (Hons) shall not be permitted to register for minor
- (l) The student is not permitted to take the electives courses from the parent department to fulfill the minimum credit requirement.

VI. Credits requirement

- (a) A Student will be eligible to get minor along with major degree in engineering, if he/she completes an additional 18 credits. These may be acquired either in offline or online like NPTEL/SWAYAM etc.,
- (b) Additional credits shall also be acquired through NPTEL Courses, which shall be domain specific, with a minimum duration of 8/12/16 weeks (2/3/4 credits) as recommended by the Board of studies.
- (c) Students shall produce a certificate issued by the NPTEL/SWAYAM etc., conducting agency as a proof of credit attainment
- (d) The colleges offering minor courses shall be ready to teach the courses in offline at their college in the concerned departments. Curriculum and the syllabus of the courses shall be approved by the Board of Studies
- (e) After successful completion of all major and minor courses with specified CGPA the University will award B.Tech degree with a Minor.

VII. Procedure to Applying for the Minor:

- (a) The department offering the minor will announce specialization and courses before the start of the session.
- (b) The interested students shall apply through the HOD of his/her parent department.
- (c) The concerned department will announce the list of the selected students for the minor.
- (d) The whole process should be completed within one week before the start of every session.
- (e) Selected students shall be permitted to register the courses for minor degree.

VIII. Registering for minor Program

- (a) Each department offering the minor will submit the final list of selected students to the principal.
- (b) The selected students shall submit a joining letter to the Principal through the concerned HOD offering the minor. The student shall inform same to the HOD of his/her parent department.
- (c) Both parent department and department offering minor shall maintain the record of student pursuing the minor degree.
- (d) With the approval of Principal and suggestion of advisor, students can choose courses from the approved list and shall register the courses within a week as per the conditions laid down in the structure for the minor degree.
- (e) Each department shall communicate the minor courses registered by the students to the time table drafting committee and accordingly time table will be drafting. Time table drafting committee shall see that no clash in time tables.

- (f) If the student wishes to withdraw/change the registration of subject/course, he/she shall inform the same to advisor, subject teacher, HODs of departments offering minor degree, parent department and Principal within two weeks after registration of the course.

IX. Procedure for Monitoring the Progress of the Scheme

The students enrolled in the minor courses will be monitored continuously at par with the prevailing practices and examination standards. An advisor/mentor from parent department shall be assigned to a group of students to monitor the progress.

X. Allocation of seats for minor

- (a) The university/institute/colleges will notify the number of the seats for minor in the concerned department well in advance before the start of the semester
- (b) There is no limit for total number of seats offered for a minor programme.
- (c) The list of the electives for minor will be offered from the list of running majors in the concerned subjects.

XI. Course Fees for registration of subjects in Minor degree

There is no fee for registration of subjects for minor degree programme offered in offline at the respective colleges.

XII. Examinations:

- (a) The examination for the minor courses offered in offline shall be conducted along with regular B. Tech programme.
- (b) The examinations (internal and external) and evaluation procedure of minor courses offered in offline is similar to regular B. Tech courses.
- (c) A separate transcript shall be issued for the minor subjects passed in each semester
- (d) **It may be noted that both major and minor courses (from IV Sem to VII Sem) are to be completed in 4 Years for Regular students and 3 Years for lateral entry admitted students.**
- (e) Examination Fees: Examination Fees will be as per the College norms
- (f) **For awarding the class, CGPA obtained in Major Degree only will be considered.**
- (g) **For awarding the Minor, obtained credits only will be considered.**
- (h) There is no supplementary examination for the failed subjects in an Minor degree programme.

General Instructions:

- (a) The academic regulations should be read as a whole for purpose of any interpretation.
- (b) Malpractices rules-nature and punishments are appended.
- (c) Where the words “he”, “him”, “his”, occur in the regulations, they also include “she”, “her”, “hers”, respectively.
- (d) In the case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Principal is final.
- (e) The Institute may change or amend the academic regulations or syllabi at any time and the changes or amendments shall be made applicable to all the students on rolls with effect from the dates notified by the institute.



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Guidelines for B. Tech. Honors in Engineering (Applicable from the Academic Year 2023-24 (R23 Regulations))

I. INTRODUCTION

The goal of introducing B.Tech (Hons) is to facilitate the students to choose additionally the specialized courses of their choice and build their competence in a specialized area in the UG level. The programme is a best choice for academically excellent students having good academic record and interest towards higher studies and research. All the students pursuing regular B.Tech with prerequisite CGPA are eligible to the register Honors degree course.

A student has to acquire 18 more credits, in addition to 160 credits (without backlog history and meeting other guidelines) required, for the award of the B.Tech Honors degree. Out of the 18 extra credits required to obtain the Honors degree, at least SIX Credits (i.e., two courses of 3 credits each) must be earned from NPTEL/SWAYAM MOOC Courses. The additional courses shall be advanced subjects in the concerned department / discipline. The department concerned will determine required courses for award of Honors degree. The subjects in the Honors degree would be a combination of core (theory and lab) and some electives.

- The institution having at least two NBA accredited B. Tech/M.Tech program can offer B.Tech (Honors). The program should have valid NBA accreditation at the time of registration of the student for B. Tech (Honors)
- Also as mentioned in AICTE Approval process Handbook 2023-24 (APH), Chapter-VII, page No, 67-69, eligible candidates will be awarded as e.g., B.Tech (Hons.) in CSE (if students pursued 18-20 extra credits in CSE), B.Tech (Hons.) in CSE with Specialization in AI&ML(if CSE students pursued 18-20 extra credits in CSE(AI&ML)/AI&ML), B.Tech (Hons.) in CSE(AI&ML) (if CSE (AI&ML) students pursued 18-20 extra credits in CSE(AI&ML), B.Tech (Hons.) in CSE with Specialization in data science (if CSE students pursued 18-20 extra credits in CSE(DS), B.Tech (Hons.) in CSE with Specialization in Cyber Security (if CSE students pursued 18-20 extra credits in Cyber Security)

II. OBJECTIVES

The objectives of initiating the B.Tech(Honors) degree certification are:

- (a) To encourage the undergraduates towards higher studies and research
- (b) To prepare the students to specialize in core Engineering streams
- (c) To attain the high-level competence in the specialized area of Under Graduate programme
- (d) To learn the best educational and professional skills in the specialized area after the completion of his undergraduate courses.
- (e) To provide the opportunity to learn the advanced courses in the specified undergraduate programme

III. Applicability and Enrolment

- (a) To all B. Tech (Regular and Lateral Entry) students admitted in Engineering & Technology with CGPA of 7.00 upto IV Semester, without any backlogs and backlog history.
- (b) It may be noted that both regular degree and Honors degree are to be completed in 4 Years for Regular students and 3 Years for lateral entry admitted students, without any backlog history.
- (c) There is no limit for total number of seats offered for Honors Degree.
- (d) The department offering Honors shall have at least one M. Tech in concerned stream, for B.Tech (Honors) registration.
- (e) For applicability of Honors degree, both regular B Tech and Honors degree courses shall be successfully completed.
- (f) Transfer of credits from a particular minor to regular B.Tech or another major degree and vice-versa shall not be permitted.

IV. Entry level

- (a) The B.Tech students (both Regular and Lateral Entry) pursuing a major degree programme can register for Honors degree at their choice in the same department / allied (as mentioned in AICTE Handbook) offering major degree from V semester onwards.
- (b) Students registering for Honors degree shall select the subjects from same branches/department based on the recommendations of BOS committee. For example, if a student pursuing major degree in Electrical & Electronics Engineering, select subjects in Electrical & Electronics Engineering only and he/she will get major and Honors degree in Electrical & Electronics Engineering.
- (c) Students shall not be permitted to register for Honors degree after completion of VI semester.
- (d) Students shall be permitted to select a maximum of two subjects per semester from the list of subjects specified for Honors degree other than lab courses.
- (e) The students shall complete Honors degree without supplementary appearance within stipulated period as notified by JNTUK / Institution for the completion of regular major B. Tech programme.
- (f) Honors degree shall not be awarded at any circumstances without completing the regular major B. Tech programme in which a student got admitted
- (g) If a student is detained due to lack of attendance, he/she shall not be permitted to register the courses for Honors degree
- (h) The subjects completed under Honors degree programme shall not be considered as equivalent subjects in case the student fails to complete the major degree programme
- (i) Students completed their degree shall not be permitted to register for Honors degree
- (j) Separate CGPA shall be shown on semester and final transcripts of regular B. Tech and Honor Degree.

V. Structure of Honors in B. Tech

- (a) The student shall earn additional 18 credits for award of Honors degree from same branch/department/allied (as mentioned in AICTE Handbook) registered for major degree
- (b) Students can complete Honors degree courses either in the college or online from platforms like NPTEL/SWAYAM etc.

- (c) The overall attendance in each semester of regular B. Tech courses and Honors degree courses shall be computed separately
- (d) Student having less than 65% attendance in Honors courses shall not be permitted for “Honors Course(s) semester end examinations”.
- (e) A student detained due to lack of attendance in regular B. Tech programme shall not be permitted to continue Honors programme
- (f) The teaching, examinations (internal and external) and evaluation procedure of Honors degree courses offered in offline is similar to regular B. Tech courses
- (g) Students may choose theory or practical courses to fulfill the minimum credit requirement.
- (h) Students shall be allowed to take maximum two subjects per semester pertaining to their Honors degree other than lab courses
- (i) The students registered for minor shall not be permitted to register for B.Tech (Honors)

VI. Credits requirement

- (a) A Student will be eligible to get B. Tech (Honors), if he/she completes an additional 18 credits. These may be acquired either in offline or online like NPTEL/SWAYAM etc by doing 8/12/16 week courses covering 2/3/4 credits.
- (b) The colleges offering Honors degree courses shall be ready to teach the courses in offline at their college in the concerned departments. Curriculum and the syllabus of the courses shall be approved by the Board of Studies
- (c) Students shall produce a certificate issued by the NPTEL/SWAYAM etc., conducting agency as a proof of credit attainment.
- (d) The teaching and evaluation procedure of Honors courses offering in offline mode shall be similar to that of regular B. Tech courses
- (e) After successful completion of all major and Honors degree courses with specified CGPA the University will award B. Tech (Honors)

VII. Procedure to Applying for Honors degree

- (a) The department offering the Honors will announce courses required before the start of the session.
- (b) The interested students shall apply for the Honors course to the HOD of the concerned department.
- (c) The whole process should be completed within one week before the start of every session.
- (d) Selected students shall be permitted to register the courses for Honors degree.

VIII. Registering for Honors Program:

- (a) Each department offering the Honors degree shall submit the final list of selected students to the principal.
- (b) The selected students shall submit a joining letter to the Principal through the concerned HOD.
- (c) The department offering Honors shall maintain the record of student pursuing the Honors degree
- (d) With the approval of Principal and suggestion of advisor/mentor, students can choose courses from the approved list and shall register the courses within a week as per the conditions laid down in the structure for the Honor degree.

- (e) Each department shall communicate the Honors courses registered by the students to the time table drafting committee and accordingly time table will be drafted. Time table drafting committee shall see that no clash in time tables.
- (f) If the student wishes to withdraw/change the registration of subject/course, he/she shall inform the same to advisor/mentor, subject teacher, Department HOD and Principal within two weeks after registration of the course.

IX. Procedure for Monitoring the Progress of the Scheme

The students enrolled in the Honor courses will be monitored continuously at par with the prevailing practices and examination standards. An advisor/mentor from parent department shall be assigned to a group of students to monitor the progress.

X. Allocation of seats for Honors degree

There is no limit for total number of seats offered for a Honor programme.

XI. Course Fees for registration of subjects in Honor degree

There is no fee for registration of subjects for Honor degree programme offered in offline at the respective colleges.

XII. Examinations

- (a) The examination for the Honors degree courses offered in offline shall be conducted along with regular B. Tech programme.
- (b) The examinations (internal and external) and evaluation procedure of Honors degree courses offered in offline is similar to regular B. Tech courses.
- (c) A separate transcript shall be issued for the Honor subjects passed in each semester
- (d) **It may be noted that both major and Honors courses (from IV Sem to VII Sem) are to be completed in 4 Years for Regular students and 3 Years for lateral entry admitted students.**
- (e) There is no supplementary examination for the failed subjects in an Honors degree programme.
- (f) Examination Fees: Examination Fees will be as per the College norms
- (g) **For awarding the class, CGPA obtained in Major Degree only will be considered.**
- (h) **For awarding the Honor's obtained credits only will be considered.**

General Instructions:

- (a) The academic regulations should be read as a whole for purpose of any interpretation.
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