



राष्ट्रीय प्रौद्योगिकी संस्थान आंध्रप्रदेश
NATIONAL INSTITUTE OF TECHNOLOGY ANDHRA PRADESH
Near National Highway No. 16, Kadakatla, Tadepalligudem – 534101
West Godavari District, Andhra Pradesh, India

No: NITANP/SEMA/Minor Degree Prgm/2024-25/298

Date: 18/12/2024

NOTICE

Sub: Minor degree programme for the AY 2024-25 (Applicable for the 2023 admitted B.Tech. batches)-Regarding.

Ref: NIT Andhra/AA/2021-22/16, dated: 07/12/2022.

All the II B.Tech. students of AY 2023-24 are hereby informed that the students are given the option of selecting a minor programme as per the modalities below.

Modalities for the Minor Programme (B.Tech.)

1. Students with a minimum CGPA of 7.5 at the end of I B.Tech. II Semester (with no backlog courses) are eligible for minor degree program selection process.
2. Eligible students have to register their options for the minor programme, indicating the priority for each option in the order starting from 1(highest priority) up to 5/6(lowest priority). You will receive a google form link for each department to register your options by email.
3. **The deadline for filling the google form is 23rd December 2024, 11 AM.**
4. A student can edit the google form submission any number of times, but the latest submission at the time of deadline is considered for scrutiny.
5. The selection process for minor programme is based on CGPA (upto I B. Tech II Semester) subjected to the constraints of minimum of 5 students to a maximum of 60 students for each minor specialization.
6. The courses listed in each Minor Programme course structure (additional 16 credits) are over and above the regular B.Tech. programme credit requirements (162 credits).
7. The grades/GPA for minor programmes shall be mentioned separately in the marks list.
8. Any grievances in the allotment of the minor degree programme should be brought to the notice of Dean (Academic Affairs) within 1 week of the notification of allotment (forwarded through respective HoD).



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MINOR DEGREE SPECIALIZATIONS

**Minor Specialization: Environmental Sustainability
(Department of Civil Engineering)**

| Courses for Minor in Environmental Sustainability | | | | | | | |
|--|-------------|-----------------------------------|---|---|---|----|-------------|
| S. No. | Course Code | Course Name | L | T | P | C | Offered SEM |
| 01 | CEM261 | Sustainability for Engineers | 4 | 0 | 0 | 4 | 4th |
| 02 | CEM311 | Basics of Life Cycle Analysis | 4 | 0 | 0 | 4 | 5th |
| 03 | CEM361 | Environmental Impact Assessment | 4 | 0 | 0 | 4 | 6th |
| 04 | CEM411 | Basics of Climate Change | 4 | 0 | 0 | 4 | 7th |
| 05 | CEM412 | Integrated Solid Waste Management | 4 | 0 | 0 | 4 | 7th |
| | | Total | | | | 20 | |

**Minor Specialization: Software Engineering
(Department of Computer Science and Engineering)**

| Courses for Minor in Software Engineering | | | | | | | |
|--|-------------|---------------------------------|---|---|---|---------|-------------|
| S. No. | Course Code | Course Title | L | T | P | Credits | Offered Sem |
| 1 | CSM251 | Algorithmics and Programming | 2 | 0 | 2 | 03 | 4th |
| 2 | CSM301 | Object Oriented Programming | 3 | 0 | 0 | 03 | 5th |
| 3 | CSM302 | Object Oriented Programming Lab | 0 | 1 | 2 | 02 | 5th |
| 4 | CSM351 | Database Management Systems | 2 | 0 | 2 | 03 | 6th |
| 5 | CSM401 | Web Programming | 2 | 0 | 2 | 03 | 7th |
| 6 | CSM402 | Software Engineering | 1 | 0 | 2 | 02 | 7th |

**Minor Specialization: Artificial Intelligence for Signal Processing Applications
(Department of Electronics & Communication Engineering)**

| Courses for Minor in Artificial Intelligence for Signal Processing Applications | | | | | | | |
|--|-------------|--|----|---|---|---------|-------------|
| S. No | Course Code | Course Title | L | T | P | Credits | Offered Sem |
| 1 | ECM251 | Statistical Foundations for Signal Processing and Machine Learning | 4 | 0 | 0 | 4 | 4th |
| 2 | ECM301 | Non-Linear Programming | 3 | 0 | 3 | 3 | 5th |
| 3 | ECM351 | Machine Learning for Signal Processing applications | 4 | 0 | 0 | 4 | 6th |
| 4 | ECM401 | Digital Modulation and Coding | 3 | 0 | 0 | 3 | 7th |
| 5 | ECM402 | AI for Signal Processing applications Lab | 0 | 0 | 2 | 2 | 7th |
| | | Total | 14 | 0 | 5 | 16 | |



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Minor Specialization: Electric Vehicles
(Department of Electrical Engineering Department)

| Courses for Minor in Electric Vehicles | | | | | | | |
|---|-------------|--|---|---|---|-----------|-------------|
| S.No | Course Code | Course Title | L | T | P | Credits | Offered Sem |
| 1 | EEM251 | Principles of Energy Conversion and Transmission in Vehicles | 3 | 0 | 0 | 03 | 4th |
| 2 | EEM301 | E-Mobility Developments and Standards | 3 | 0 | 0 | 03 | 5th |
| 3 | EEM302 | Battery Energy Storage and EV Charging Systems | 3 | 0 | 0 | 03 | 5th |
| 4 | EEM351 | Electric Drives for EVs | 3 | 0 | 0 | 03 | 6th |
| 5 | EEM352 | EV Battery Charging Systems Lab | 0 | 1 | 2 | 02 | 6th |
| 6 | EEM401 | EV Propulsion Systems Lab | 0 | 1 | 2 | 02 | 7th |
| | | TOTAL | | | | 16 | |

Minor Specialization: Automation and Robotics
(Department of Mechanical Engineering)

| Courses for Minor in Automation and Robotics | | | | | | | |
|---|-------------|---------------------------------------|-----------|----------|-----------|-----------|-------------|
| S. No. | Course Code | Course Title | L | T | P | Credits | Offered Sem |
| 1 | MEM251 | Mechanisms and Machines | 3 | 0 | 0 | 03 | 4th |
| 2 | MEM301 | Automation Technologies in Industries | 3 | 0 | 0 | 03 | 5th |
| 3 | MEM351 | Mechatronic Systems | 3 | 0 | 0 | 03 | 6th |
| 4 | MEM352 | Mechatronics Lab | 0 | 0 | 3 | 02 | 6th |
| 5 | MEM401 | CNC and Robotics | 3 | 0 | 0 | 03 | 7th |
| 6 | MEM402 | CNC and Robotics Lab | 0 | 0 | 3 | 02 | 7th |
| | | TOTAL | 12 | 0 | 06 | 16 | |



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Minor Specialization: Food Science and Technology
(Department of Biotechnology)

| Courses for Minor in Food Science and Technology | | | | | | | |
|---|--------------------|--------------------------------|-----------|----------|----------|----------------|--------------------|
| S. No. | Course Code | Course Title | L | T | P | Credits | Offered Sem |
| 1 | BTM251 | Essentials of food technology | 3 | 1 | 0 | 04 | 4th |
| 2 | BTM301 | Food Processing & Preservation | 3 | 1 | 0 | 04 | 5th |
| 3 | BTM351 | Food Product development | 3 | 0 | 0 | 03 | 6th |
| 4 | BTM352 | Food Processing Lab | 0 | 0 | 3 | 02 | 6th |
| 5 | BTM401 | Food Safety Systems | 3 | 0 | 0 | 03 | 7th |
| | | TOTAL | 12 | 0 | 3 | 16 | |

This notice is issued with the approval of competent authority.

Sd/-
Dean
(Academic Affairs)

Copy To

1. All Heads of the Departments for kind information.
2. Associate Dean (AA) for circulation and necessary actions.
3. Associate Dean (WNT) for uploading on the Institute website.
4. Office file.