**Curriculum for B.E Degree Course in**

**Computer Science & Engineering (Artificial Intelligence & Machine Learning)**

**{{regulation}}**



**Document Version**

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| --- | --- | --- | --- | --- |
| **Version Number** | **Date** | **Author** | **Major Updates** | **Approved by** |
| {%tr for suspect in suspects %} | | | | |
| {{suspect.version}} | {{suspect.date}} | {{suspect.author}} | {{suspect.gopal}} | {{suspect.approved}} |
| {%tr endfor %} | | | | |

**Section 1: General Course Structure**

1. **Definition of Credit**

|  |  |
| --- | --- |
| {%tr for row in credits\_table %} | |
| {{row.hours\_type}} | {{row.credit\_value}} |
| {%tr endfor %} | |

1. **Structure of Program**

|  |  |  |
| --- | --- | --- |
| **S. No.** | **Category** | **Credits** |
| {%tr for row in category\_table %} | | |
| {{ row.s\_no }} | {{ row.category}} | {{ row.credits}} |
| {%tr endfor %} | | |
|  | **TOTAL** | **{{total\_credits}}** |

1. **Course code and definition**

|  |  |
| --- | --- |
| **Code** | **Definition** |
| L | Lecture |
| T | Tutorial |
| P | Practical |
| C | Credits |
| {{dept\_Code}} | Professional core courses |
| {{dept\_Code}} PE | Professional Elective courses |
| {{dept\_Code}} OE | Open Elective Courses |
| {{dept\_Code}} MC | Mandatory Courses |

**Course level coding scheme:** Four-digit number used as suffix with the Course Code for identifying the level of the course. Thousand’s place denotes regulation number (we use “4” for 2024 Regulation) Digit at hundred’s place signifies the semester in which course is offered. Last two digits represent the serial order of course within the semester. For example, 4101, 4102, … are courses offered during first semester.

1. **Category-wise Courses**

**Humanities & Social Science Courses (HSMC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in HSMC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | 13 |

**Basic Science Courses (BSC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in BSC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **16** |

**Engineering Science Courses (ESC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in ESC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **16** |

**Program Core Courses (PCC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in PCC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **78** |

**Professional Elective courses**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in ELECTIVE %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **18** |

**Open Elective Courses (OEC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in OEC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **6** |

**Mandatory Course (MC)**

|  |  |  |  |
| --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L-T-P-C** |
| {%tr for row in MC %} | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.ltpc}} |
| {%tr endfor %} | | | |
| **Total Credits** | | | **0** |

**Employment Enhancement Course (EEC)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **S. No.** | **Course Title** | **Semester** | **L** | **T** | **P** | **C** |
| {%tr for row in EEC %} | | | | | | |
| {{row.s\_no}} | {{row.title}} | {{row.sem}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | |
| **Total Credits** | | | 21 | | | |

1. **Induction Program**
   1. **Catapult** is a dynamic week-long event designed for our incoming first-year students, offering an immersive introduction to the diverse array of clubs and activities across the college campus. In addition to familiarizing them with our labs and Centers of Excellence (COEs), Catapult aims to acclimate first-year students to college life, ensuring they feel at ease with the forthcoming experiences of their four-year journey.
   2. This initiative fosters meaningful connections between seniors and juniors, providing a platform for them to explore departmental projects and engage in collaborative activities, thereby enhancing camaraderie and knowledge sharing within the college community.
2. **Evaluation Scheme**
   1. **For Theory Courses:**

The weightage of Internal assessment is 40% and for End Semester Exam is 60%

The student has to obtain at least 50% marks individually both in internal

assessment and end semester exams to pass

* 1. **For Practical Courses:**

The weightage of Internal assessment is 60% and for End Semester Exam is 40%

For Theory cum Lab

The student has to obtain at least 50% marks individually both in internal assessment and end semester exams to pass.

* 1. **For Theory Cum Practical Courses:**

The weightage of Internal assessment is 50% and for End Semester Exam is 50%

The student has to obtain at least 50% marks individually both in internal assessment and end semester exams to pass

**Note**: The internal assessment is based on the student’s performance in 3 Internal Assessment (IA) exams, quizzes, assignments, class performance, attendance, etc.

* 1. **For Project works:**

Assessment of project works comprises three internal reviews and an end-of-semester evaluation. Internal reviews, worth 40 marks in total, encompass assessment criteria such as Project Synopsis/Proposal Evaluation, Methodology and Design of Existing System, Feasibility of Project Proposal, Planning of Project Work, and Team Work. At the conclusion of the semester, 20 marks are designated for assessing the quality of the report, while the remaining 40 marks are reserved for evaluating performance in viva-voce, demonstration of the work, and other relevant factors.

1. **Learning Beyond Class Room**
   1. Students should be encouraged to visit Centers of Excellences (COEs) in the campus and learn additional technical skills
   2. Students should be encouraged to participate in internal / external competitions, hackathons, etc. on a regular basis

**Section 2: Semester wise Structure and Curriculum for UG Course in BE CSE AIML.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester I** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table1 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester II** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table2 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

**\*\*NCC Credit Course level 1 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA.**

**$ Sk ill Based Course**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester III** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table3 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester IV** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table4 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

**\*\*NCC Credit Course level 2 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA.**

**$ Skill Based Course**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester V** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table5 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester VI** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table6 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

**NCC Credit Course level 3 is offered for NCC students only. The grades earned by the students will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA.**

**$ Skill Based Course**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester VII** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table7 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Semester VIII** | | | | | | | | |
| **S. No** | **Theory/ Practical / T&P** | **Course Code** | **Course Title** | | **L** | **T** | **P** | **C** |
| {%tr for row in course\_table8 %} | | | | | | | | |
| {{row.type}} | {{row.type}} | {{row.course\_code}} | | {{row.course\_title}} | {{row.l}} | {{row.t}} | {{row.p}} | {{row.c}} |
| {%tr endfor %} | | | | | | | | |
| **Total** | | | | | | | | **26** |