

| Colour Code | THIS IS 2022 BATCH CURRICULUM | | | |
|-------------------|--|-----------------------------------|---------|----------------|
| | These courses are fixed, and can not be shifted. (Do not modify) | | | |
| | These courses can be shifted across semesters, number of courses is constant | | | |
| | Number of courses can vary within a range (refer Sheet 2), can be shifted across semesters too | | | |
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| Semester 1 | | | | |
| Course code | Course name | Category | Credits | Semester Total |
| CS 103 | Computing and Science | Department Core | 6 | |
| MA 109 | Calculus I | Basic Sciences and Mathematics | 4 | |
| MA 111 | Calculus II | Basic Sciences and Mathematics | 4 | |
| CH 105 | Organic & Inorganic Chemistry | Basic Sciences and Mathematics | 4 | |
| CH 107 | Physical Chemistry | Basic Sciences and Mathematics | 4 | |
| PH 117 | Physics lab | Basic Sciences and Mathematics | 3 | |
| CS 101 | Computer programming | Engineering Sciences and skills | 6 | |
| HSS/IDC/ENT | Introduction to HASMED | HASMED Core | 8 | |
| NOCS 01 | NCC/NSS/NSO | Non - Credited compulsory Courses | | |
| GC 101 | Gender sensitization course | Non - Credited compulsory Courses | | |
| TA 101 | TA Course | Non - Credited compulsory Courses | | |
| | | | | 39 |
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| Semester 2 | | | | |
| Course code | Course name | Category | Credits | Semester Total |
| CS 104 | Software Systems Lab | Department Core | 6 | |
| MA 106 | Linear Algebra | Basic Sciences and Mathematics | 4 | |
| MA 108 | Differential Equations | Basic Sciences and Mathematics | 4 | |
| PH 111 | Introduction to classical physics | Basic Sciences and Mathematics | 4 | |
| PH 112 | Introduction to quantum physics | Basic Sciences and Mathematics | 4 | |
| BB101 | Biology | Basic Sciences and Mathematics | 6 | |
| MS 101 | Makerspace | Engineering Sciences and skills | 8 | |
| CH 117 | Chemistry lab | Basic Sciences and Mathematics | 3 | |
| NOCS 02 | NCC/NSS/NSO | Non - Credited compulsory Courses | | |

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| | | | | 39 | |
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| Semester 3 | | | | | |
|--------------------|--|---------------------------------------|----------------|-----------------------|--|
| Course code | Course name | Category | Credits | Semester Total | |
| CS 215 | Data Analysis and Interpretation (CSE is using this existing course in place of AI and Data Science) | Engineering Sciences and skills | 6 | | |
| EC 101 | Economics | HASMED Core | 6 | | |
| CS 207 | Discrete structures | Department Core | 6 | | |
| CS 213 | Data Structures and Algorithms | Department Core | 6 | | |
| CS 293 | Data Structures Lab | Department Lab and SLP/PT/Works Visit | 3 | | |
| CS 230 | Digital Logic Design and Computer Archite | Department Core | 6 | | |
| CS 231 | Digital Logic Design and Computer Archite | Department Lab and SLP/PT/Works Visit | 3 | | |
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| | | | | 36 | |



| Semester 4 | | | | | |
|--------------------|--|---------------------------------------|----------------|-----------------------|----------------------------|
| Course code | Course name | Category | Credits | Semester Total | |
| DE 250 | Design Thinking | HASMED Core | 6 | | |
| CS 218 | Design and Analysis of Algorithms | Department Core | 6 | | |
| CS 208 | Logic and theory of computation | Department Core | 6 | | |
| CS 219 | Operating Systems | Department Core | 6 | | New course |
| CS 236 | Operating Systems Lab | Department Lab and SLP/PT/Works Visit | 3 | | |
| CS 217 | Artificial Intelligence and Machine Learning | Department Core | 6 | | New course |
| CS 240 | Artificial Intelligence and Machine Learning | Department Lab and SLP/PT/Works Visit | 3 | | |
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| | | | | 36 | |



| Semester 5 | | | | | |
|--------------------|--------------------|-----------------|----------------|-----------------------|--|
| Course code | Course name | Category | Credits | Semester Total | |

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|--------|---|---------------------------------------|---|---------------------------------|
| CS 348 | Computer Networks | Department Core | 6 | Syllabus Update |
| CS 378 | Computer Networks Lab | Department Lab and SLP/PT/Works Visit | 3 | Syllabus Update |
| CS 353 | Abstractions and Paradigms for Programm | Department Core | 6 | New course |
| CS 355 | Programming Paradigms Lab | Department Lab and SLP/PT/Works Visit | 3 | |
| | STEM elective 1 | STEM Elective | 6 | |
| | HASMED elective 1 | HASMED Elective | 6 | |
| CS --- | Department elective 1 | Department Electives | 6 | |
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