

IITK B. Tech. CSE Curriculum/Scheme updates

Following are important updates to B. Tech. CSE curriculum/scheme over the years:

Courses removed:

1. Modern Physics (PHT101) - 3 credits, in 1st semester
2. Physics Lab (PHP103) - 1 credit, in 1st semester
3. Computer Aided Engineering Drawing (CET101) - 2 credits, in 1st semester
4. Electrical Engineering Lab (EEP103) - 1 credit, in 1st semester
5. Web Based System Design (CST210) - 3 credits, in 4th semester
6. Web Based System Design Lab (CSP216) - 2 credits, in 4th semester
7. Intelligent System Design (CST305) - 3 credits, in 6th semester
8. Intelligent System Design Lab (CSP315) - 2 credits, in 6th semester
9. Modern Banking (CST308) – 3 credits, in 6th semester
10. Modern Banking Lab (CSP320) – 2 credits, in 6th semester
11. Simulation and Modelling Lab (CSP317) - 2 credits, in 5th semester
12. Simulation and Modelling Lab (CSP318) - 2 credits, in 6th semester

Courses added:

1. IT Workshop -1 (CSP111) - 2 credits, in 1st semester
2. IT Workshop -2 (CSP112) - 2 credits, in 2nd semester
3. IT Workshop -3 (CSP211) - 2 credits, in 3rd semester
4. Creative Arts / Liberal Arts (OTP101) - 1 credit, in 1st semester
5. Internet and Web Technologies (CST104) - 3 credits, in 2nd semester
6. Independent Project (OTD102) - 1 credit, in 2nd semester
7. Introduction to Logic and Formal Methods (CST210) - 3 credits, in 4th semester
8. Technical Presentation/Seminar – I (OSD309) - 1 credit, in 5th semester
9. Communication Techniques, Interview and GD (HST302) - 3 credits, in 6th semester
10. Communication Techniques Lab (HSP302) - 1 credit, in 6th semester
11. Survey / Thought based course /project (CSP408) - 1 credit, in 8th semester
12. Interesting electives have been offered:
 - 12.1. AI and Expert Systems - 3 credits, in 5th semester
 - 12.2. Machine Learning - 3 credits, in 7th semester
 - 12.3. Malware Analysis and Detection - 3 credits, in 7th semester
 - 12.4. Digital Image Processing - 3 credits, in 8th semester

Course adjustments:

1. Introduction to Computer Systems (CST101) and Computer Programming and Problem Solving (CST103) have been merged into one course Introduction to Computer Systems and Programming (CST101).
2. Operating System (4th Semester) is now introduced before Computer Networks (5th Semester)
3. Computer Graphics is now a program core subject instead of a program elective earlier.
4. Information Theory and Coding is now program core subject instead of program elective earlier.
5. IPRs & IT Laws has been moved from 6th semester to 8th semester.
6. B. Tech. Project has been advanced to 6th and 7th semester (6 credits in each semester). Earlier it was in 7th and 8th semester. Interested students can stay in campus during summer break after 6th semester and work on the project.
7. There is provision of two independent elective labs now - CSP304 (6th semester) and CSP406 (8th semester). They are not tied to any specific theory course.

8. As such there are no tutorials embedded into the scheme, however, course instructor may take one tutorial of 1 hour per week if required.

Credit adjustments:

1. All theory courses are of 3 credits each (36 to 40 classes per semester).
2. All labs are of 1 credits each (12 to 14 labs per semester).
3. All 3 IT Workshops are of 2 credits each.
4. Maximum credits for a UG course are 3 credits.
5. Minimum credits for a UG course is 1 credit.
6. Total credits have reduced from 203 credits in initial draft curriculum in 2013-14 to 160 credits in ongoing curriculum scheme from 2016-17. This is partly due to making few 4 credits courses as 3 credits courses now and 2 credits labs as 1 credit labs in the latest scheme and partly due to removal of few courses from curriculum.

Note: - A course can be added into / removed from ongoing curriculum scheme with required approval as long as total credits do not fall below 160 credits or does not exceed 176 credits.