

SCHEME OF STUDY FOR B.TECH.(COMPUTER SCIENCE)

Admission year : 2009

Notes:

1. As per the institute-level guidelines, the credit structure for students admitted in 2009 or later, is as below (Ref - Notice on student notice board, www.vnit.ac.in, Date - March 20, 2012, **Ref** : No. Acad/Regn/Odd (July) Term /2012-13/):

| | Category | Symbol | B.Tech (4-year) |
|---|--------------------------|---------------------------------|--------------------|
| 1 | Departmental core | DC | 152 |
| 2 | Departmental Elective | DE | 72-90 |
| 3 | Humanities & Management | HM | 0-6 |
| 4 | Open course | OC | 0-12 |
| | TOTAL REQUIREMENT | Total =(DC+DE+HM+OC) | 320 |

1. As per this latest credit structure, the credits reserved for OC-HM are 0-18 (0 minimum - 18 maximum).
2. The OC-HM courses can be registered *only in the semesters identified* in the scheme below, that is, **3rd, 4th, 7th and 8th semesters**.
3. If a student does not register for an OC-HM course in one of these (3rd/4th/7th/8th) semesters, he/she should compensate for those 6 credits in the *same* semester by registering for one more DE subject in that semester.
4. As per the latest guideline, the 6 credits for the course on “Technical Communication” in 6th semester (offered by Humanities deptt), will be considered as part of the maximum 18 credits reserved for OC-HM courses. A student if registers for “technical Communication”, cannot register for any other HM course.

Semester III

| Course Code | Course Title | Credits | Cat. |
|-------------|--|---------|------|
| MAL 201 | Integral Transforms and Partial Differential Equations | 6 | DC |
| ECL 2xx | Analog Circuits | 8 | DC |
| EEL 2xx | Electrical Sciences | 6 | DC |
| PHL 2xx | Physics II | 6 | DC |
| CSL 2xx | Data Structures and Program Design | 10 | DC |
| | OC -HM | 6 | |
| | DC: 36; DE + OC-HM: 6 | 42 | |

Semester IV

| Course Code | Course Title | Credits | Cat. |
|-------------|---|---------|--------------------|
| CSL 2xx | Discrete Mathematics and Graph Theory | 6 | DC |
| MAL 205 | Numerical Analysis and Probability Theory | 6 | DC |
| ECL 2xx | Digital Circuits and Logic Design | 6 | DC |
| CSL 2xx | Concepts in Programming Languages | 6 | DC |
| CSL 2xx | Introduction to OO Methodology | 8 | DC |
| CSL 2xx | Business Information Systems | 6 | DE |
| CSL 2xx | Internet Technologies | 6 | DE |
| | DC: 68; DE + OC-HM: 12 | 38 | DEs: 1 of 2 DEs |

Semester V

| Course Code | Course Title | Credits | Cat. |
|-------------|------------------------------|---------|---|
| CSL 3xx | Microprocessor-based Systems | 8 | DC |
| CSL 3xx | Computer Organization | 6 | DC |
| ECL 3xx | Signals and Systems | 6 | DE |
| CSP 3xx | Software Lab I | 2 | DC |
| CSL 3xx | Neurofuzzy Techniques | 6 | DE |
| CSL 3xx | Computer Graphics | 6 | DE |
| CSL 3xx | Software Engineering | 6 | DC |
| | OC - HM | 6 | |
| | DC: 90; DE + OC-HM: 30 | 40 | DEs: (2 of 3 DEs + 1 OC-HM) OR (3 of 3 DEs) |

Semester VI

| Course Code | Course Title | Credits | Cat. |
|-------------|---------------------------|---------|---------------------|
| CSL 3xx | Operating Systems | 6 | DC |
| CSL 3xx | Theory of Computation | 6 | DC |
| CSL 3xx | System Programming | 8 | DC |
| CSL 3xx | Computer Networks | 6 | DC |
| CSP 3xx | Software Lab II | 2 | DC |
| CSL 3xx | Paradigms in Programming | 6 | DE |
| HUL 3xx | Technical Communication | 6 | DE |
| EEL 3xx | Control Systems | 6 | DE |
| ECL 3xx | Digital Signal Processing | 6 | DE |
| | DC: 118; DE + OC-HM: 42 | 40 | DEs : 2 of 4 DEs |

Semester VII

| Course Code | Course Title | Credits | Cat. |
|-------------|----------------------------------|---------|--|
| CSL 4xx | Analysis of Algorithms | 6 | DC |
| CSL 4xx | Language Processors | 8 | DC |
| CSL 4xx | Database Management Systems | 8 | DC |
| CSD 4xx | Project Phase I | 4 | DC |
| CSL 4xx | Artificial Intelligence | 6 | DE |
| CSL 4xx | Formal Methods in Program Design | 6 | DE |
| CSL 4xx | Topics in Embedded Systems | 6 | DE |
| CSL4xx | Information Retrieval | 6 | DE |
| CSL4xx | Human Computer Interface | 6 | DE |
| | OC - HM | 6 | |
| | DC: 144; DE + OC-HM: 60 | 44 | DEs : (2 of 5 DEs + 1 OC-HM) OR (3 of 5 DEs) |

Semester VIII

| Course Code | Course Title | Credits | Cat. |
|-------------|----------------------------------|---------|--|
| CSD 4xx | Project Phase II | 8 | DC |
| CSL 4xx | Network Security | 6 | DE |
| CSL 4xx | Data Mining and Data Warehousing | 6 | DE |
| CSL 4xx | Topics in Graph Theory | 6 | DE |
| CSL 4xx | Software Project Management | 6 | DE |
| CSL 4xx | Topics in Distributed Systems | 6 | DE |
| | OC - HM | 6 | |
| | DC: 152; DE + OC-HM: 90 | 38 | DEs : (4 of 5 DEs + 1 OC-HM) OR (5 of 5 DEs) |