

**Kolhapur Institute of Technology's
College of Engineering (Autonomous),
Kolhapur**



Department of CSE (DS)

Syllabus for T. Y B. Tech.

Computer Science and Engineering (DS)

Scheme: 2021

SEM V

| SEMESTER V | | | | | | | | |
|------------|-------------|---|---|---|---|-------------|---------|----------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits | Category |
| 1 | UDS0501 | Computer Algorithms | 3 | 1 | | 4 | 4 | PC |
| 2 | UDS0502 | Database Management System | 3 | | | 3 | 3 | PC |
| 3 | UDS0503 | Data Engineering /Exploratory data analysis | 3 | | | 3 | 3 | PC |
| 4 | UDS05** | Program Elective-I | 3 | | | 3 | 3 | PE |
| 5 | UDSO05** | Open Elective-I | 3 | | | 3 | 3 | ILOE |
| 6 | UDS0531 | Database Management Lab | | | 2 | 2 | 1 | PC |
| 7 | UDS0532 | Data Preprocessing /Exploratory data analysis Lab | | | 2 | 2 | 1 | PC |
| 8 | UDS0533 | Web Technology Lab | 2 | | 2 | 4 | 3 | PC |
| 9 | UDS0551 | MiniProject-II | | | 2 | 2 | 1 | PW |
| 10 | UDS0561 | Soft Skills | 2 | | | | | MAC |
| Total: | | | | | | 27 | 22 | |

| PROGRAM ELECTIVE I | | | | | | | |
|--------------------|-------------|-----------------------------|---|---|---|-------------|---------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits |
| 1 | UDSE0521 | Information Security System | 3 | | | 3 | 3 |
| 2 | UDSE0522 | Project Management | 3 | | | 3 | 3 |
| 3 | UDSE0523 | Internet of Things | 3 | | | 3 | 3 |
| 4 | UDSE0524 | Soft Computing | 3 | | | 3 | 3 |
| 5 | UDSE0525 | Adhoc Wireless Networks | 3 | 2 | | 5 | 4 |
| 6 | UDSE0526 | Text Analysis | 3 | | | 3 | 3 |
| 7 | UDSE0527 | Nature Inspired Computing | 3 | | | 3 | 3 |
| Total: | | | | | | 9 | 3 |

| OPEN ELECTIVE I | | | | | | | |
|-----------------|-------------|-------------------|---|---|---|-------------|---------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits |
| 1 | UDS0511 | BioInformatics | 3 | | | 3 | 3 |
| 2 | UDS0512 | Electric Vehicles | 3 | | | 3 | 3 |
| 3 | UDS0513 | Green Technology | 3 | | | 3 | 3 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| Total: | | | | | | 3 | 3 |

SEM VI

| SEMESTER VI | | | | | | | | |
|-------------|-------------|-------------------------------|---|---|---|-------------|---------|----------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits | Category |
| 1 | UDS0601 | Optimization for data science | 3 | 1 | | 4 | 4 | PC |
| 2 | UDS0602 | Cloud Computing | 3 | 1 | | 4 | 4 | PC |
| 3 | UDS0603 | Machine Learning | 3 | | | 3 | 3 | PC |
| 4 | UDS06** | Program Elective-II | 3 | | | 3 | 3 | PE |
| 5 | UDS06** | Open Elective-II | 3 | | | 3 | 3 | ILOE |
| 6 | UDS0631 | Advanced Programming Lab | 1 | | 2 | 3 | 2 | PC |
| 7 | UDS063* | Program Elective Lab-II | | | 2 | 2 | 1 | PE |
| 8 | UDS0632 | Machine Learning Lab | | | 2 | 2 | 1 | PC |
| 9 | UDS0651 | MiniProject-III | | | 2 | 2 | 1 | PW |
| 10 | UDS0661 | Professional Communication | | | 2 | 2 | | MAC |
| Total: | | | | | | 28 | 22 | |

| PROGRAM ELECTIVE II | | | | | | | |
|---------------------|-------------|-----------------------------------|---|---|---|-------------|---------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits |
| 1 | UDSE0621 | NoSQL | 3 | | 2 | 5 | 4 |
| 2 | UDSE0622 | STQA | 3 | | 2 | 5 | 4 |
| 3 | UDSE0623 | Business Intelligence Systems | 3 | | 2 | 5 | 4 |
| 4 | UDSE0633 | NoSQL-Lab | | | 2 | | |
| 5 | UDSE0634 | STQA-Lab | | | 2 | | |
| 6 | UDSE0635 | Business Intelligence Systems-Lab | | | 2 | | |
| 7 | UDSE0636 | Internet of Things | 3 | | 2 | 5 | |
| Total: | | | | | | 20 | 12 |

| OPEN ELECTIVE II | | | | | | | |
|------------------|-------------|------------------------|---|---|---|-------------|---------|
| Sr. No. | Course Code | Course Name | L | T | P | Hrs. / Week | Credits |
| 1 | UDSO0613 | Operational Research | 3 | | | 3 | 3 |
| 2 | UDSO0614 | Remote Sensing and GIS | 3 | | | 3 | 3 |
| 3 | UDSO0615 | E-waste Management | 3 | | | 3 | 3 |
| 4 | | | | | | | |
| 5 | | | | | | | |
| Total: | | | | | | 3 | 3 |