

**Curriculum of B.Tech. Program  
in  
Computer Science and Engineering**

**(from AY 2023-24 onwards)**



**Indian Institute of Technology Indore**

## 2<sup>nd</sup> Year B.Tech. (Computer Science and Engineering)

### Semester III

Course Code	Course Name	Weekly Contact Hours L-T-P	Total Credits
ZZ 2XX	Course-I for Minor Program	x-x-x	3
MA 205	Complex Analysis	3-1-0 (1/2 semester)	2
MA 207	Differential Equations-II	3-1-0 (1/2 semester)	2
CS 201	Discrete Mathematical Structures	2-1-0	3
CS 203	Data Structures and Algorithms	2-1-0	3
CS 207	Database and Information Systems	2-1-0	3
CS 209	Logic Design	2-0-2	3
CS 253	Data Structures and Algorithms Lab	0-0-3	1.5
CS 257	Database and Information Systems Lab	0-0-3	1.5
CS 2XX	<b>Department Elective I</b>	x-x-x	3
<b>Total</b>		<b>11-4-8 **</b>	<b>22/25</b>

\*\* Excluding minor programs and electives

### Semester IV

Course Code	Course Name	Weekly Contact Hours L-T-P	Total Credits
ZZ 2XX	Course-II for Minor Program	x-x-x	3
MA 204N	Numerical Methods	2-0-2	3
CS 202	Automata Theory and Logic	2-1-0	3
CS 204	Design and Analysis of Algorithms	2-1-0	3
CS 210	Computer Architecture	2-1-0	3
CS 254	Design and Analysis of Algorithms Lab	0-0-3	1.5
CS 264	Computer Architecture Lab	0-0-3	1.5
CS 2XX	<b>Department Elective II</b>	x-x-x	3
ZZ 2XX	<b>Institute Elective-I</b>	x-x-x	3
<b>Total</b>		<b>8-3-8</b>	<b>21/24</b>

**3<sup>rd</sup> Year B.Tech. (Computer Science and Engineering)**

**Semester V**

<b>Course Code</b>	<b>Course Name</b>	<b>Weekly Contact Hours L-T-P</b>	<b>Total Credits</b>
ZZ 3XX	Course III - Minor Program	x-x-x	3
CS 303	Operating Systems	2-1-0	3
CS 307	Optimization Algorithms and Techniques	2-1-0	3
CS 311	Parallel Computing	2-0-2	3
CS 313	Computer Networks	2-0-2	3
CS 353N	Operating Systems Lab	0-0-2	1
CS 357N	Optimization Algorithms and Techniques Lab	0-0-2	1
CS 3XX	<b>Department Elective III</b>	x-x-x	3
ZZ 3XX	<b>Institute Elective II</b>	x-x-x	3
<b>Total</b>		<b>8-2-8</b>	<b>20/23</b>

**Semester VI**

<b>Course Code</b>	<b>Course Name</b>	<b>Weekly Contact Hours L-T-P</b>	<b>Total Credits</b>
ZZ 3XX	Course IV - Minor Program	x-x-x	3
CS 302N	Computer Graphics and Visualization	2-0-2	3
CS 304N	Computational Intelligence	2-1-0	3
CS 308N	Compiler Techniques	2-0-2	3
CS 310	Software Engineering	2-0-2	3
CS 354N	Computational Intelligence Lab	0-0-3	1.5
CS 3XX	<b>Departmental Elective IV</b>	x-x-x	3
CS 3XX	<b>Departmental Elective V</b>	x-x-x	3
ZZ 3XX	<b>Institute Elective III</b>	x-x-x	3
<b>Total</b>		<b>8-1-9</b>	<b>22.5/25.5</b>

**4<sup>th</sup> Year B.Tech. (Computer Science and Engineering)**

**Semester VII**

<b>Course Code</b>	<b>Course Name</b>	<b>Weekly Contact Hours L-T-P</b>	<b>Total Credits</b>
ZZ 4XX	Course-V for Minor Program	x-x-x	2
CS 493N	B Tech Project (BTP)	0-0-32	16
CS 495	Internship - I	x-x-x	1
CS 497	Internship - II	x-x-x	1
<b>Total</b>		<b>0-0-32</b>	<b>18/20</b>

**Semester VIII**

<b>Course Code</b>	<b>Course Name</b>	<b>Weekly Contact Hours L-T-P</b>	<b>Total Credits</b>
CS 4XX	<b>Department Elective VI</b>	x-x-x	3
CS 4XX	<b>Department Elective VII</b>	x-x-x	3
ZZ 4XX	<b>Institute Elective IV</b>	x-x-x	3
ZZ 4XX	<b>Institute Elective V</b>	x-x-x	3
ZZ 4XX	<b>Institute Elective VI</b>	x-x-x	3
<b>Total</b>			<b>15</b>