

**B.Tech. CSE Course Structure-2025-2029****Software Product Engineering (Kalvium)**

S.No.	Semester		Course Name	Credits	Course Type
1	1	BCO527A	Front-end web development	4	Skilling
2	1	BCO529A	Critical thinking 101	4	Foundation
3	1	DMA021A	Discrete Mathematics	4	Academic
4	1	BCO530A	Professional skills for the workplace	3	Foundation
5	1	BCO531A	The breadth of computer science 1	4	Academic
6	1	BCO532A	Problem solving using programming	4	Skilling
7	1	BCO534A	Design for developers	3	Academic
1	2	BCO538A	Learning how to learn	4	Foundation
2	2	BCO539A	The breadth of computer science 2	4	Academic
3	2		Backend Web Development	4	Skilling
4	2	BCO670A	NoSQL Databases for Web Development	4	Skilling
5	2	BCO540A	Full Stack Web Development	4	Skilling
1	3	BCO542A	Economics, Politics and Rural Society Development	3	Foundation
2	3	DMA023A	Mathematical thinking 101	4	Foundation
3	3	BCO543A	Database Management Systems	5	Academic
4	3	BCO544A	Object Oriented Programming	4	Academic
5	3	BCO545A	Integrated work with a partner company	8	Integrated Work
1	4	BCO564A	How human languages work	4	Foundation
2	4	BCO565A	Tools and techniques for creative thinking	4	Foundation
3	4	BCO566A	Operating Systems	4	Academic
4	4	BCO567A	Data Structure and Algorithms	4	Academic
5	4	BCO568A	Integrated work with a partner company	8	Integrated Work
1	5		English LSRW	3	Foundation
2	5		Principles of Science	4	Foundation
3	5	BCO628A	Computer Organization & Architecture	4	Academic
4	5	BCO629A	Formal Language & Automata Theory	4	Academic
5	5	BCO630A	Design & Analysis of Algorithms	3	Academic
6	5	BCO631A	Integrated work with a partner company	8	Integrated Work
1	6		Discovering Self	3	Foundation
2	6		Fundamentals of Business Management	3	Foundation
3	6	BCO658A	Compiler Design	4	Academic

4	6	BCO659A	Computer Networks	4	Academic
5	6	BCO660A	Integrated work with a partner company	8	Integrated Work
1	7		Introduction to philosophy	3	Foundation
2	7		Foundation Elective	3	Foundation
3	7		Academic Elective #1	4	Academic
4	7		Academic Elective #2	4	Academic
5	7	BCO661A	Integrated work with a partner company	8	Integrated Work
1	8	BCO662A	Integrated work with a partner company	20	Integrated Work

**Academic Elective #1**

- BCO663A Cloud Computing
- BCO664A Distributed systems
- BCO665A Data Mining and Warehousing

**Academic Elective #2**

- BCO666A Cryptography
- BCO667A Internet of things
- BCO668A System Design

**Foundation Elective**

- Human Mind and Behaviour
- Organization behaviour
- Design thinking 101