

**Institute of Engineering & Technology**  
**DEVI AHILYA VISHVAVIDYALAYA, INDORE**

**Bachelor of Technology in**  
**Computer Science & Business Systems [CSBS]**

**Introduction:**

Computer Science & Business System (CSBS) Program/Course is designed to provide a blend of technical and business skills to students by combining Computer Science knowledge with Management and Business Concepts. It aims to prepare students for careers at the intersection of technology and business, equipping them with a well-rounded skill set. With the recently announced National Education Policy 2020, India has taken a giant leap forward in its journey of modernizing its education system. This type of Program/Course aims to promote an individual's holistic development by exploring various facets of knowledge.

The extent to which the program is market-driven may vary over time, depending on various factors such as industry trends, market demands, and feedback from employers. This Bachelor of Technology (B.Tech.) Program in Computer Science & Business System (CSBS) incorporates business and management subjects into the curriculum. It covers areas like finance, marketing, operations, strategy, entrepreneurship, and leadership alongside computer science topics. The aim is to equip students with a broader skill set that includes not only technical expertise but also an understanding of business principles, enabling them to make informed decisions in a business context in the era of Business 4.0.

**Program Outcomes:**

The students graduating from the CSBS program will be industry and society ready. They will have the following knowledge / skill and attitude and will be in a position to make a meaningful contribution to the growth of the Indian economy:

1. Understanding of Contemporary Technology
2. Understanding of Technology Abstraction
3. Knowledge of Common Business Principles
4. Business Discipline and Service Orientation
5. Innovation Ability
6. Strong in Ethics and Life Values

**Objectives:**

Technical education is at crossroads today. The knowledge industry expects computer science graduates to know not only the core topics of Computer Science but also develop an inherent capacity for liberal arts, innovative mindset, life values and an appreciation of sustainability issues. Emerging topics such as Cyber Security, Machine Learning, Cloud Computing, IoT, Analytics etc. need to become part of the curriculum to help students to be future-ready. The need of the age is 'business engineers', a breed of engineering talent tuned to the needs of Business 4.0. Apart from appreciating the technologies of the future, these graduates now need to understand the fundamental concepts of business management and have the 'innovation' mindset. Computer Science & Business System (CSBS) Program/Course addresses the above-mentioned needs of current-age engineering education

### **Eligibility:**

Higher Secondary (10+2) with science stream and mathematics as a subject with at least 50% marks in aggregate or an equivalent grade for General/OBC candidates, and 45% marks in aggregate or an equivalent grade for SC/ST and Differently Abled (DA) category candidates from a recognized Board.

### **Age Limit:**

As per the provisions of Devi Ahilya Vishwavidyalaya / State Govt. norms for U.G. programmes.

### **Admission Procedure:**

Based on ranking of JEE-Mains Exam being conducted by IIT's

### **Seats:**

Seats for Indian Students: 60 (Reservation as per the State Govt. rules) + Additional with EWS quota: Total : 75

Seats for NRI students: 03 (Inclusive in 60)

Seats for PIO/ Foreign Students: 03 (Over and above 60)

### **Fee Structure for Batch 2024-28:**

Semester	Academic Fee	Development & Maintenance Fee	Students' Services Fee		Total (Rs.)	
			Boys	Girls	Boys	Girls
First	42000	- -	-	-	42000	42000
Second	- -	36000	6832	6416	42832	42416
Third	42000	- -	-	-	42000	42000
Fourth	- -	36000	6832	6416	42832	42416
Fifth	42000	- -	-	-	42000	42000
Sixth	- -	36000	6832	6416	42832	42416
Seventh	42000	- -	-	-	42000	42000
Eighth	- -	36000	6832	6416	42832	42416

- Caution Money Rs. 4000/- Once at admission time. (Refundable)
- Examination fees Rs. 2750/- per semester.
- Hostel Fee and Central Library Fee will be extra and as per University norms.
- For NRI/ NRI Sponsored/ PIO/ Foreign Nationals Belong to SAARC or BIMSTEC: Fee in each semester will be 2.5 times of the above mentioned existing total fee.
- Foreign Nationals Belong to other than SAARC or BIMSTEC: Fee of US\$ 3500 per annum shall be payable on yearly basis.
- Caution Money (Refundable) and Alumni Fee (Chargeable in the First Semester):

Category	Caution Money	Alumni Fee
For Indian Nationals	Rs. 4,000	Rs. 500
For NRI/ NRI Sponsored/ PIO/ Foreign Nationals Belong to SAARC or BIMSTEC	Rs. 10,000	Rs. 1,000
Foreign Nationals Belong to other than SAARC or BIMSTEC	Rs. 10,000	Rs. 1,000

## Course Structure – B.Tech. (CSBS) – First Year

<b>SEMESTER - I</b>				
S.NO	Subject Code	Subject Name	Number of Credit L-T-P	Subject Type
1.	1CBRC1	Discrete Mathematics	3-1-0	PC1
2.	1DBRC2	Introductory Topics in Statistics, Probability and Calculus	3-0-0	PC2
3.	1CBRC3	Fundamentals of Computer Science	3-0-1	PC3
4.	1CBRC4	Principles of Electrical Engineering	3-0-1	PC4
5.	1CBRC5	Physics for Computing Science	2-0-1	PC5
6.	1CBRS1	Business Communication and Value Science-I	2-0-0	SS1
7.	1CBRV1	Comprehensive Viva I	0-0-4	Viva1
<b>Total Credit for SEM I</b>			<b>20 actual + 4 Virtual credits</b>	

<b>SEMESTER - II</b>				
S.NO	Subject Code	Subject Name	Number of Credit L-T-P	Subject Type
1.	2CBRC1	Linear Algebra	3-1-0	PC1
2.	2CBRC2	Statistical Methods	3-1-0	PC2
3.	2CBRC3	Data Structures & Algorithms	3-0-1	PC3
4.	2CBRC4	Principles of Electronics	3-0-1	PC4
5.	2CBRC5	Fundamentals of Economics	2-0-0	PC5
6.	2CBRS2	Business Communication and Value Science-II	2-0-0	SS2
7.	2CBRV2	Comprehensive Viva II	0-0-4	Viva 2
<b>Total Credit for SEM II</b>			<b>20 actual + 4 Virtual credits</b>	

## **Learning Outcomes:**

Computer Science & Business Systems (CSBS) provide a strong foundation for individuals interested in start-ups and entrepreneurship. Here are some possibilities and benefits that CSBS graduates can leverage in the field of start-ups and entrepreneurship:

- (i) **Technical Expertise:** CSBS graduates possess technical skills and knowledge in computer science, programming, and technology. This expertise enables them to develop and create innovative products or services in the tech industry, which is often a key component of many start-ups.
- (ii) **Business Acumen:** CSBS programs offer business studies, including courses in finance, marketing, strategy, and entrepreneurship. This knowledge equips graduates with a solid understanding of business principles, market analysis, customer needs, and competitive strategies—essential for starting and managing a successful venture.
- (iii) **Interdisciplinary Perspective:** CSBS graduates have the advantage of an interdisciplinary perspective, combining technical and business knowledge. This unique skill set allows them to bridge the gap between technology and business, making informed decisions and finding innovative solutions to problems.
- (iv) **Networking Opportunities:** CSBS programs often provide networking opportunities, connecting students with industry professionals, mentors, and fellow aspiring entrepreneurs. Building a strong network can help individuals find potential co-founders, investors, and collaborators for their start-up ventures.
- (v) **Access to Resources:** Some CSBS programs or affiliated institutions may offer access to incubators, accelerators, funding opportunities, or entrepreneurship support services. These resources can provide guidance, mentorship, infrastructure, and financial support to help turn entrepreneurial ideas into viable businesses.
- (vi) **Industry Connections:** CSBS programs often have strong ties to the industry, including partnerships with technology companies, start-ups, and established businesses. These connections can provide CSBS graduates with valuable insights, internship opportunities, industry exposure, and potential partnerships for their own ventures.
- (vii) **Problem-Solving Mindset:** The combined technical and business education in CSBS programs cultivates a problem-solving mindset. Start-ups often face unique challenges, and CSBS graduates are equipped with the skills and mindset to identify and solve these challenges effectively.
- (viii) **Adaptability and Agility:** CSBS graduates are exposed to both the dynamic world of technology and the rapidly changing business landscape. This exposure enhances their adaptability and agility in responding to market trends, technological advancements, and customer demands—crucial qualities for entrepreneurial success. After completing the programme, the students can have possible career paths.

**REGULATION FOR BACHELOR OF TECHNOLOGY IN  
COMPUTER SCIENCE & BUSINESS SYSTEMS [CSBS]**

<b>1.</b>	<b>Degree Title</b>	:	Bachelor of Technology (B.Tech.) in <i>Computer Science &amp; Business Systems</i> [CSBS]
<b>2.</b>	<b>Name of Faculty</b>	:	Faculty of Engineering
<b>3.</b>	<b>Name of the School of Studies</b>	:	Institute of Engineering & Technology
<b>4.</b>	<b>Duration</b>	:	<b>Minimum:</b> Four Years <b>Maximum:</b> Eight Years As per Ordinance No. 14 applicable to UTDs.
<b>5.</b>	<b>Eligibility</b>	:	Higher Secondary (10+2) with Physics and Mathematics as a subject with at least 50% marks in aggregate or an equivalent grade for General/OBC candidates, and 45% marks in aggregate or an equivalent grade for SC/ST and Differently Abled (DA) category candidates from a recognized Board.
<b>6.</b>	<b>Age Limit</b>	:	As per the provisions of Devi Ahilya Vishwavidyalaya / State Govt. norms for U.G. programmes.
<b>7.</b>	<b>Admission Procedure</b>	:	Based on ranking of JEE-Mains Exam being conducted by IIT's
<b>8.</b>	<b>Seats</b>	:	Seats for Indian Students: 60 (Reservation as per the State Govt. rules) + Additional with EWS quota: Total : 75 Seats for NRI students: 03 (Inclusive in 60) Seats for PIO/ Foreign Students: 03 (Over and above 60)
<b>9.</b>	<b>Fee</b>	:	As decided by Devi Ahilya Vishwavidyalaya from time to time.
<b>10.</b>	<b>Examination</b>	:	As per Ordinance No. 14 applicable to UTDs.
<b>11.</b>	<b>Curriculum</b>	:	As decided by the Departmental Committee from time to time.
<b>12.</b>	<b>Eligibility for Degree</b>	:	A student will be eligible for award of B. Tech. Degree when he/ she earns minimum required number of valid and virtual credits specified for the programme within maximum duration of the programme, but not before minimum duration of the programme. <b>Minimum Required Valid Credits : 160</b> <b>Minimum Required Virtual Credits : 32</b>
<b>13.</b>	<b>Attendance Requirement</b>	:	Requirement of attendance will be as per University Ordinance governing the Examinations (No. 6). In general, attendance of at least seventy-five percent of lectures and practical separately, will be required in each course to sit in the semester end examination.  For special reasons such as prolonged illness deficiency in percentage of attendance not exceeding fifteen percent of the total number of lectures delivered and practical/sessional held in each course may be condoned by the Vice Chancellor.
<b>14.</b>	<b>General Instructions and Specific Provision</b>	:	No branch transfer is permissible in any other branch during the course of studies. For any other matter not covered in this Regulation, General Rules of Devi Ahilya Vishwavidyalaya as applicable in Semester Examination shall apply. In other matters, Executive Council of Devi Ahilya Vishwavidyalaya shall be competent to take decision.