# **Bachelor of Science**

The Bachelor of Science degree with a major in computer science is a professional degree designed to prepare the student for a career of further studies in the technology and application of computers. The BS degree requires more course work in computer science and mathematics and either technical writing or a foreign language.

The Bachelor of Science program in computer science is accredited by the Computer Science Accreditation Commission (CSAC) of the Computing Sciences Accreditation Board (CSAB), a specialized accrediting body recognized by the Commission on Recognition of Postsecondary Education (COPRA).

#### **Degree Requirements**

The Bachelor of Science degree with a major in computer science requires a minimum of 134 semester hours, 42 of which must be advanced, and fulfillment of degree requirements for the Bachelor of Science degree as specified in the College of Arts and Sciences section of this catalog.

#### Major in Computer Science

Following is **one** suggested four-year degree plan. Students are encouraged to see their adviser each semester for help with program decisions and enrollment.

BS with a Major in Computer Science

FRESHMAN YEAR		
FALL HOU	IRS	
CSCI 1110, Program Development*	4	
ENGL 1310, College Writing I	3	
MATH 1710, Calculus I <sup>4</sup>	4	
PSCI 1040, American Government	3	
Oral Communication <sup>2</sup>	3	
Total	17	
SOPHOMORE YEAR		
FALL HOU	IRS	
CSCI 2010, Assembly Language Programmin	g 3	
ELET 2720, Digital Logic**	4	
ENGL 2220, World Literature II	3	
HIST 2610, United States History to 1865 <sup>12</sup>	3	
MATH 1720, Calculus II	3	
CSCI Option	3	
Total	19	
JUNIOR YEAR		
FALL HOU	HOURS	
CSCI 3600, Principles of Systems	3	

CSCI 3600, Principles of Systems	5
MATH 2700, Linear Algebra or	
MATH 3350, Numerical Analysis or	
MATH 3410, Differential Equations	3
PHYS 1710-1730, General Technical Physics	4
CSCI Option <sup>13</sup>	3
Wellness <sup>11</sup>	2-3
Total 15	5-16
SENIOR YEAR	
FALL HOU	JRS
FALL HOU CSCI 4450, Analysis of Algorithms	J <b>RS</b> 3
FALL HOU CSCI 4450, Analysis of Algorithms ENGL 4180, Advanced Technical Writing, or	J <b>RS</b> 3
FALL HOU CSCI 4450, Analysis of Algorithms ENGL 4180, Advanced Technical Writing, or ENGL 4190, Technical Editing, or	J <b>RS</b> 3
FALLHOUCSCI 4450, Analysis of AlgorithmsENGL 4180, Advanced Technical Writing, orENGL 4190, Technical Editing, orENGL 4250, Writing Technical Procedure	J <b>RS</b> 3 s <sup>31</sup> 3
FALLHOUCSCI 4450, Analysis of AlgorithmsENGL 4180, Advanced Technical Writing, orENGL 4190, Technical Editing, orENGL 4250, Writing Technical ProcedureCSCI Option (advanced) <sup>13</sup>	J <b>RS</b> 3 (s <sup>31</sup> 3) 3
FALLHOUCSCI 4450, Analysis of AlgorithmsENGL 4180, Advanced Technical Writing, orENGL 4190, Technical Editing, orENGL 4250, Writing Technical ProcedureCSCI Option (advanced)13Elective (advanced)16	J <b>RS</b> 3 s <sup>31</sup> 3 3 3
FALLHOUCSCI 4450, Analysis of AlgorithmsENGL 4180, Advanced Technical Writing, orENGL 4190, Technical Editing, orENGL 4250, Writing Technical ProcedureCSCI Option (advanced) <sup>13</sup> Elective (advanced) <sup>16</sup> Natural/Life Science <sup>9</sup>	J <b>RS</b> 3 (1) 3 (1) 3 3 4

## 

FRESHMAN YEAR	
SPRING	HOURS
CSCI 1120, Structured Programming	4
ENGL 2210, World Literature I <sup>6</sup>	3
MATH 2770, Discrete Structures	3
PSCI 1050, American Government	3
Visual and Performing Arts <sup>7</sup>	3
Total	16
SOPHOMORE YEAR	
SPRING	HOURS
CSCI 3100. Computer Organization <sup>30, **</sup>	* 3
CSCI 3400, Data Structures***	3
ECON 1110, Principles of Macroeconom	nics 3
ENGL 2700, Technical Writing	3
HIST 2620, United States History Since	186512 3
MATH 1780, Introduction to Statistical	
Analysis	_3
Total	18
JUNIOR YEAR	
SPRING	HOURS
CSCI Option (advanced) <sup>13</sup>	3
CSCI Option (advanced) <sup>13</sup>	3
ENGL 4180, Advanced Technical Writir	ig or
ENGL 4190, Technical Editing, or	0
ENGL 4250, Writing Technical Proce	edures 3
PHYS 2220-2240, General Technical Ph	ysics 4
Understanding of Ideas and Values <sup>8</sup>	3
Total	16
SENIOR YEAR	
SPRING	HOURS
CSCI Option (advanced) <sup>13</sup>	3
CSCI Option (advanced) <sup>13</sup>	3
Elective (advanced) <sup>16</sup>	3
Elective <sup>16</sup>	4
Understanding of Ideas and Values <sup>8</sup>	_3
Total	16

Actual degree plans may vary depending on availability of courses in a given semester. Some courses may require prerequisites not listed.

Taught using C++. If a student transfers with CSCI 1110 (Pascal only) equivalent, the department \* will credit that course as CSCI 2320 and recommend that CSCI 1110 be taken.

\*\* ELET 2720, Digital Logic, is a prerequisite for CSCI 3100.

\*\*\* CSCI 1110, 1120, and 2010 and ELET 2720 are prerequisites for CSCI 3100. MATH 2770 is a prerequisite for CSCI 3400.

See Arts and Sciences folding key (#2) for footnotes.

### Summary of Degree Requirements:

Computer Science (18 advanced):	44
Core:	
Oral Communication	3
English	12
History	6
Political Science	6
Visual and Performing Arts	3
Wellness	2-3
Economics	3
Mathematics	4
Laboratory Science	16
Understanding of Ideas and Values	6
Digital Logic:	4
Mathematics:	12
English or Foreign Language:	6
CSCI:	
Program Development	4
Structured Programming	4
Assembly Language Programming	3
Computer Organization	3
Data Structures	3
Principles of Systems	3
Analysis of Algorithms	3
Computer Science Option	6
Computer Science (advanced)	15

### Note:

12 hours of computer science must be taken at UNT. 42 hours must be advanced; 24 of the 42 hours must be taken at UNT.

24 of the last 30 hours must be completed at UNT.

## UNT Undergraduate Catalog Department of Computer Sciences