

Computer Science (CS)
Minor Checklist
2024-2025 Catalog

Name: _____ Student ID: _____

Course Number & Title (units)	Prerequisites†
Complete FIVE of the following upper division courses:	
At least 12 units must be specific ECS courses	
<input type="checkbox"/> BIM 155: Machine Learning for Biomedical Engineering (4)*	a 'C-' or higher in ENG 006; either MAT 022A or MAT 027A; BIM 105; BIM 108 (can be concurrent); ECS 032B recommended
<input type="checkbox"/> DES 157B: Interactive Media III (4)	DES 001; either DES 014 or DES 021; DES 015; DES 016; DES 021; DES 111; DES 112; DES 117; and either DES 157 or DES 157A
<input type="checkbox"/> ECS 111: Applied Machine Learning for Non-Majors OR ECS 171: Machine Learning (4)*	ECS 111 : ECS 32B or ECS 36C; MAT 135A or STA 35C or MAT/BIS 107; MAT 22A or 27A or 67 ECS 171 : ECS 32B or 36C; STA 32 or STA 35B or STA 131A or ECS 132 or MAT 135B or EEC 161; MAT 22A or 27A or 67
<input type="checkbox"/> ECS 113: Computer Security for Non-Majors (4)	ECS 32A or 36A
<input type="checkbox"/> ECS 115: Computer Networks for Non-Majors (4) OR ECS 152A: Computer Networks (4)*	ECS 115 : ECS 32B or 36C ECS 152A : ECS 32B or 36C; ECS 132 or EEC 161 or MAT 135A or STA 32 or STA 35B or STA 131A
<input type="checkbox"/> ECS 116: Databases for Non-Majors OR ECS 165A: Database Systems (4)*	ECS 116 : ECS 32B or ECS 36C ECS 165A : ECS 32B or 36C
<input type="checkbox"/> ECS 117: Algorithms for Data Science OR ECS 122A: Algorithm Design & Analysis (4)*	ECS 117 : ECS 17 or 20; ECS 32B or 36C ECS 122A : ECS 20; ECS 32B or 36C
<input type="checkbox"/> ECS 119: Data Processing Pipelines (4)	ECS 116 or 165A
<input type="checkbox"/> ECS 120: Theory of Computation (4)	ECS 20 or MAT 108
<input type="checkbox"/> ECS 122B: Algorithm Design & Analysis (4)	ECS 122A; ECS 34 or 36C
<input type="checkbox"/> ECS 124: Theory & Practice of Bioinformatics (4)	ECS 32A or 36A or ENG 6; STA 32 or 35B or 100 or 131A or MAT 135A or BIM 105 or ECS 132 or EEC 161; BIS 2A or MCB 10
<input type="checkbox"/> ECS 127: Cryptography (4)	ECS 20 or MAT 108; ECS 32A or 36A
<input type="checkbox"/> ECS 129: Computational Structural Bioinformatics (4)	BIS 2A or MCB 10; ECS 32A or 36A
<input type="checkbox"/> ECS 130: Scientific Computation (4)	ECS 32A or ECS 36A or ENG 6; MAT 22A or 27A or 67
<input type="checkbox"/> ECS 132: Probability & Statistical Modeling for Computer Science (4)	ECS 34 or 36B; ECS 17 or 20; MAT 21C; MAT 22A or 27A or 67
<input type="checkbox"/> ECS 160: Software Engineering (4)	ECS 140A
<input type="checkbox"/> ECS 161: Modern Programming Tools (4)	ECS 32B or 36B
<input type="checkbox"/> ECS 162: Web Programming (4)	ECS 34 or 36B
<input type="checkbox"/> ECS 163: Information Interfaces (4)	ECS 32B or 36C
<input type="checkbox"/> ECS 164: Human-Computer Interaction (4)	none
<input type="checkbox"/> ECS 170: Introduction to Artificial Intelligence (4)	ECS 32B or 36C
<input type="checkbox"/> ECS 172: Recommender Systems (4)	ECS 32B or 36B; ECS 132 or STA 130A or STA 131A or ECN 140; MAT 22A or 27A or 67
<input type="checkbox"/> ECS 173: Image Processing & Analysis (4)	a 'C-' or higher in MAT 22A or 27A or 67; ECS 32B or 36C
<input type="checkbox"/> ECS 174: Computer Vision (4)	ECS 32B or 36C
<input type="checkbox"/> ECS 175: Computer Graphics (4)	ECS 34 or 36C; MAT 22A or 27A or 67
<input type="checkbox"/> ECS 177: Scientific Visualization (4)	ECS 175
<input type="checkbox"/> ECS 178: Geometric Modeling (4)	ECS 175
<input type="checkbox"/> ECS 179: Gameplay Programming (4)	ECS 32B or ECS 36C
<input type="checkbox"/> ECS 189: Special Topics (4)	instructor consent
<input type="checkbox"/> ECS 192: Internship in Computer Science OR ECS 199: Special Study OR ECS 197T: Tutoring (3-5)	varies; see department website
<input type="checkbox"/> EEC 100: Circuits II (5)	a 'C-' or higher in ENG 17; MAT 22B or 27B
<input type="checkbox"/> EEC 171: Parallel Computer Architecture (4)	EEC 170 or ECS 154B
<input type="checkbox"/> EEC 172: Embedded Systems (4)	EEC 100; EEC 170 or ECS 154A
<input type="checkbox"/> EEC 180: Digital Systems II (5)	EEC 18 or 180A
<input type="checkbox"/> ECN 122: Theory of Games & Strategic Behavior (4)	MAT 16A & 16B, or MATH 21A & 21B, or MAT 17A & 17B, or instructor consent
<input type="checkbox"/> LIN 127: Text Processing & Corpus Linguistics (4)	none
<input type="checkbox"/> LIN 177: Computational Linguistics (4)	instructor consent
<input type="checkbox"/> PSC 120: Agent-Based Modeling (4)	none
<input type="checkbox"/> STA 131A: Introduction to Probability Theory (4)	a 'C-' or better in MAT 21C and in either MAT 22A or 27A or 67
<input type="checkbox"/> STA 131B: Introduction to Mathematical Statistics (4)	a 'C-' or better in STA 131A or MAT 135A; instructor consent
<input type="checkbox"/> STA 141B: Data & Web Technologies for Data Analysis (4)	a 'C-' or better in STA 141A
<input type="checkbox"/> STA 141C: Big Data & High Performance Statistical Computing (4)	a 'C-' or better in STA 141B, or a 'C-' or better in STA 141A and ECS 32A
<input type="checkbox"/> Any MAT course numbered between 100-189, excluding MAT 111* (3-4)	varies; see university catalog

†Prerequisites are subject to change; consult the University Catalog (<https://catalog.ucdavis.edu/>) for the most recent updates

*Courses have credit limitations; consult the University Catalog for more information

✓Total units required for CS minor: 20