

## Computer Science Major Requirements

- I. **Required Computer Science Courses** — The semester [F=Fall], [S=Spring] when a once-per-year course is offered is enclosed in brackets; *prerequisites* in parenthesis.

<b>COSC 199</b>	Introduction to Computer Programming
<b>COSC 220</b>	Computer Science I ( <b>COSC 199</b> )
<b>COSC 221</b>	Computer Science II ( <b>COSC 220</b> & <b>MATH 131</b> )
<b>COSC 302</b>	[F] Advanced Data Structures and Files ( <b>COSC 221</b> )
<b>COSC 306</b>	[S] Operating Systems ( <b>COSC 221</b> )
<b>COSC 307</b>	[F] Artificial Intelligence ( <b>COSC 221</b> )
<b>COSC 310</b>	[F] Systems Programming ( <b>COSC 221</b> )
<b>COSC 312</b>	[S] Database Management Principles ( <b>COSC 221</b> & <b>MATH 211</b> )
<b>COSC 314</b>	[S] Web Programming ( <b>COSC 221</b> )
<b>COSC 316</b>	[S] Assembly Language and Machine Org. ( <b>COSC 221</b> & <b>MATH 211</b> )
<b>COSC 339</b>	[F] Programming with Visual Basic ( <b>COSC 221</b> )
<b>COSC 406</b>	[S] Data Communications Systems ( <b>COSC 221</b> & <b>MATH 211</b> )
<b>COSC 409</b>	[F] Software Engineering ( <b>COSC 221</b> )
<b>COSC 410</b>	[F] Developing Windows Applications Using C++ ( <b>COSC 302</b> & <b>MATH 339</b> )
<b>COSC 417</b>	[S] Computer Science Senior Seminar ( <b>COSC 302</b> )

## II. Required Mathematics Courses

<b>MATH 132</b>	Precalculus I ( <b>MATH 131</b> )
<b>MATH 201</b>	Calculus I ( <b>MATH 132</b> )
<b>MATH 202</b>	Calculus II ( <b>MATH 201</b> )
<b>MATH 211</b>	[F] Discrete Mathematics I ( <b>MATH 131</b> )
<b>MATH 212</b>	[S] Discrete Mathematics II ( <b>MATH 131</b> )
<b>MATH 301</b>	[F] Linear Algebra ( <b>MATH 131</b> )
<b>MATH 302</b>	[S] Numerical Methods ( <b>MATH 202</b> & <b>MATH 301</b> )

III. **Science General Education Requirement (GER)**

\***MATH 131** College Algebra for Mathematics and Science Majors (*prerequisite* **DVMT 109**). This is a 3 credit course. **This course serves as the Mathematics GER (Category IV)**

Also required are 8 credits in calculus-based physics: **PHYS 303** and **PHYS 304**. **These credits serve as the Natural Science GER (Category V).**

IV. **Electives**

**COSC 210** Small Systems Software (**MNSC 150**)

**COSC 420** Special Topics in Computer Science (co-requisite: **COSC 302**)