**Bachelor of Science in Computer Science: Data Analytics Concentration (Starting with Calculus)**

Required Semester Credit Hours (SCH): 120

Refer to the University Catalog for all degree all requirements at catalog.utep.edu.

Many core curriculum courses are also offered in the summer (Su) semester. Students are encouraged to register early and check Goldmine for course availability.

The flowchart below may not reflect all student schedules; courses can be shifted to different semesters where applicable.

> **Catalog Year 2021-2022**

Sample Degree Plan

<table>
<thead>
<tr>
<th>Freshman Year</th>
<th>Sophomore Year</th>
<th>Junior Year</th>
<th>Senior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td><strong>Second Semester</strong></td>
<td><strong>Second Semester</strong></td>
<td><strong>First Semester</strong></td>
</tr>
<tr>
<td>(14 SCH)</td>
<td>(16 SCH)</td>
<td>(16 SCH)</td>
<td>(14 SCH)</td>
</tr>
</tbody>
</table>

**University Core Curriculum**

- **RWS 1301**
  - Rhetoric & Composition I
  - 3 SCH
  - F/Sp

- **HIST 1301**
  - History of U.S. to 1865
  - 3 SCH
  - F/Sp

- **HIST 1302**
  - History of U.S. since 1865
  - 3 SCH
  - F/Sp

- **POLS 2310**
  - Introduction to Politics
  - 3 SCH
  - F/Sp

- **POLS 2311**
  - American Gov. and Politics
  - 3 SCH
  - F/Sp

**University Core Curriculum**

- **MATH 1411**
  - Calculus I
  - 4 SCH
  - F/Sp

- **UNIV 1301**
  - Seminar/Critical Inquiry
  - 1 SCH
  - F/Sp

**Foundational Electives**

**Computer Science Major**

- **CS 1310**
  - Intro to Comp. Thinking
  - 4 SCH
  - F/Sp

- **CS 1311**
  - Calculus II
  - 3 SCH
  - F/Sp

**Math**

- **MATH 1312**
  - Elementary Data Struct./Algorithms
  - 4 SCH
  - F/Sp

**Computer Science Major**

- **CS 2101**
  - Discrete Structures I
  - 4 SCH
  - F/Sp

- **CS 2202**
  - Discrete Structures II
  - 4 SCH
  - F/Sp

**Computer Science Major**

- **EE 2369 & 2169**
  - Digital Sys. Design I & Lab
  - 3 SCH
  - F/Sp

**Computer Science Major**

- **CS 2302**
  - Data Structures
  - 3 SCH
  - F/Sp

- **CS 3305**
  - Automata/Comp/Formal Lng
  - 3 SCH
  - F/Sp

**Computer Science Major**

- **CS 3350**
  - Advanced Operating Systems
  - 3 SCH
  - F/Sp

- **CS 3331**
  - Jr Professional Orientation
  - 3 SCH
  - F/Sp

**Computer Science Major**

- **CS 3432**
  - Theory of Operating Sys.
  - 3 SCH
  - F/Sp

- **CS 4341**
  - Software Eng: Req Eng
  - 3 SCH
  - F/Sp

**Computer Science Major**

- **CS 4350**
  - Machine Learning
  - 4 SCH
  - F/Sp

**Open Elective**

- **MATH or SCI Option**
  - 3 SCH
  - F/Sp

**Technical Elective**

**Open Elective**

- **See University Catalog**

**Technical Elective**

- **See University Catalog**

**Catalog Year 2021-2022**

* C or better required

Arrow indicates a prerequisite.

Color-coded boxes group the course subject.

Open Elective

Date Last Updated: June 2021