DATA SYSTEMS AND DEVELOPMENT

DATA SYSTEMS AND DEVELOPMENT A.A.S.
Program Code: T.CPL.AAS

Associate in Applied Science (A.A.S.)
Graduation requirement — 60–63 semester hours

The Data Systems and Development program equips students for a wide range of opportunities as computer programmers and software designers. The program emphasizes fundamental database programming and fundamental web programming. Students begin their training with foundational language courses and then may choose from a wide variety of advanced, industry-specific courses to customize their degree. Students may also choose to select from a number of smaller degree certificates embedded within the software development program. This program transfers to EIU, UIS, and SIU under the 2+2 agreement. Students who are interested in transferring should speak with the department chair.

Program Notes
• Students intending to transfer to EIU’s Computer Information Technology Program should take the following required classes marked with an asterisk:
  • Program courses and electives: CSC 115, CSC 123, CSC 125, CSC 133, CSC 179, ELT 155
• Students intending to transfer to UIS are recommended to take MAT 200 for the math elective.
• General Education electives are chosen from two of the following categories: communications, social/behavioral sciences, humanities/fine arts, mathematics, physical/life sciences. For more information, see General Education requirements on p. 67.

Suggested Full-time Sequence

<table>
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<tr>
<th>FALL 1st Semester</th>
<th>SPRING 2nd Semester</th>
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<tbody>
<tr>
<td>CIS 112</td>
<td>CIS 123 or CSC 140</td>
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<tr>
<td>CIS 122</td>
<td>CIS 152</td>
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<tr>
<td>*CSC 133</td>
<td>CSC 118</td>
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<tr>
<td>Elective (*CSC 179)</td>
<td>CSC 130</td>
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<td>ENG 101</td>
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<tr>
<th>FALL 3rd Semester</th>
<th>Spring 4th Semester</th>
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<tr>
<td>*CSC 125 or CSC 240</td>
<td>CSC 155</td>
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<tr>
<td>CSC 176</td>
<td>CSC 220</td>
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<tr>
<td>Elective (*CSC 115)</td>
<td>Elective (*ELT 155)</td>
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<tr>
<td>Math Elec (MAT 108, MAT 141, or MAT 200)</td>
<td>Phy Sci elec (*PHY 121)</td>
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<tr>
<td>ENG 102</td>
<td>Soc/Beh Sci or Hum/FA elec (*ECO 101)</td>
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Required Program Courses (36–37 hours)  Cr. Hrs.
CIS 112 Computing Essentials ........................................ 4
CIS 122 Introduction to Computer Programming ...... 4
CIS 152 Web Design and Development I .......................... 3
*CSC 123 Computer Science I (C/C++).............................. 4
or CSC 140 Computer Science I (Java) ....................... 3
*CSC 125 Computer Science II (C++) ............................ 3
or CSC 240 Computer Science II (Java) ....................... 3
CSC 118 Introduction to Linux ........................................ 3
CSC 130 Introduction to Computer Networks .................. 3
*CSC 133 PC Hardware and OS Maintenance ................. 4
CSC 155 Systems Development ...................................... 3
CSC 176 SQL Fundamentals I ........................................ 3
CSC 220 Data Structures ............................................. 3

Electives (9–10 hours)
Choose 9–10 hours from the following:
*CSC 115 Networking I – Routers and Switches ................ 3
CSC 151 MS OS Workstation .......................................... 3
CSC 153 MS OS Server ............................................... 3
CSC 171 Linux Installation and Administration .............. 3
CSC 175 JavaScript Development ................................... 3
*CSC 179 Digital Media Foundation .............................. 3
CSC 191 SQL Fundamentals II ....................................... 4
*ELT 155 Digital Control Systems ................................ 3
MAT 128 Calculus and Analytic Geometry I ................... 5
MAT 200 Introduction to Discrete Mathematics .............. 3
(recommended for UIS transfer)

Required General Education Courses (15–16 hours)
ENG 101 Composition I ................................................. 3
ENG 102 Composition II .............................................. 3

General Education Electives (9–10 hours)
Recommended mathematics electives: choose at least one
*MAT 108
*MAT 141 (EIU transfer)
*MAT 200 (UIS transfer)
Recommended Social/Behavioral Sciences elective
*ECO 101 (EIU transfer)
Recommended Physical Sciences elective
*PHY 121 (EIU transfer)

Total Semester Credit Hours 60–63