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
  - General education electives: ECO 101 (Soc/Beh Sci elective, MAT 141 (Math elective), PHY 121 (Phys Sci elective).
- 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. 65.

Suggested Full-time Sequence

FALL 1st Semester	SPRING 2nd Semester
CIS 112	*CIS 123 or CSC 140
CIS 122	CIS 152
*CSC 133	CSC 118
Elective (*CSC 179)	CSC 130
	ENG 101

Fall 3rd Semester	Spring 4th Semester
*CSC 125 or CSC 240	CSC 155
CSC 176	CSC 220
Elective (*CSC 115)	Elective (*ELT 155)
Math Elec (MAT 108, MAT 141, or MAT 200)	Phy Sci elec (*PHY 121)
ENG 102	Soc/Beh Sci or Hum/FA elec (*ECO 101)

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 (recommended for UIS transfer)	3

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*