

**MAJOR: COMPUTER SCIENCE  
EFFECTIVE SPRING 2020**

NAME \_\_\_\_\_ E-NUMBER \_\_\_\_\_ CATALOG \_\_\_\_\_

**I. CHECKLIST OF GRADUATION REQUIREMENTS**

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|---|--|
| _____ 120 Semester Hours (SH)   | _____ 42 SH in residence at EIU                        |
| _____ 2.00 Cumulative GPA   | _____ 32 SH junior-senior residency at EIU             |
| _____ 2.00 Major GPA  | _____ 12 SH senior residency at EIU                    |
| _____ 40 SH of upper division courses (3000+)                                       | _____ Culture Diversity (designated with * in catalog) |
| _____ Senior Seminar (after completion of 75 SH)                                    |  |
| _____ Application for degree. Review requirements by first semester of junior year. |  |

New freshmen entering in Fall 2000 must successfully complete the Electronic Writing Portfolio by creating and submitting a portfolio of four writing samples written under guidance of faculty members in writing-centered or writing-intensive courses.

EWP I \_\_\_\_\_ EWP II \_\_\_\_\_ EWP III \_\_\_\_\_

**II. GENERAL EDUCATION REQUIREMENTS** – Students transferring to EIU who have received an AA or AS degree in a baccalaureate-oriented program from an Illinois public community college, Lincoln College, or Springfield College in Illinois or who completed the IAI General Education Core Curriculum are considered as having met lower division general education requirements. *EXCEPT*, they must complete a Senior Seminar and must meet the Foreign Language Requirement, either by exemption or with course work.

<u>Grade</u>	<u>Semester</u>	<u>Course#</u>	<u>SH</u>	<u>Component</u>
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HUMANITIES AND FINE ARTS (9 SH – at least one course in fine arts and one in humanities; courses must represent at least two different disciplines)

_____	_____	_____	_____	Fine Arts
_____	_____	_____	_____	Humanities
_____	_____	_____	_____	Fine Arts or Humanities

FOREIGN LANGUAGE (0–8 SH) Exempt? Yes No (Two years in a single foreign language in high school with an average grade of C or better.)

_____	_____	_____	_____	
_____	_____	_____	_____	

SOCIAL AND BEHAVIORAL SCIENCES (9 SH from two different disciplines)

_____	_____	_____	_____	
_____	_____	_____	_____	
_____	_____	_____	_____	

LANGUAGE (9 SH; grade of C or better required)

_____	_____	ENG 1001G	3 SH	Composition and Language
_____	_____	ENG 1002G	3 SH	Composition and Literature
_____	_____	CMN 1310G	3 SH	Introduction to Speech Communication

MATHEMATICS (3 SH)

_____	_____	_____	_____	
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SCIENTIFIC AWARENESS (7 SH)

_____	_____	_____	_____	Physical Science
_____	_____	_____	_____	Biological Science
_____	_____	_____	_____	Lab

SENIOR SEMINAR (3 SH)

_____	_____	_____	_____	_____
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TAKE COURSES IN A LOGICAL SEQUENCE WITH THE PROPER PREREQUISITES COMPLETED. LOOK CAREFULLY AT THE SEMESTERS IN WHICH COURSES ARE TAUGHT SO DEGREE REQUIREMENTS CAN BE COMPLETED ON SCHEDULE (Semester(s) offered subject to change)

### Required Mathematics Courses

<u>Grade</u>	<u>Semester</u>				<u>Prereq.</u>
_____	_____	MAT 1441G	(5 SH; F,S)	Calculus I	
_____	_____	MAT 2442	(5 SH; F,S)	Calculus II	MAT 1441
_____	_____	MAT 2550	(3 SH; F,S)	Linear Algebra	MAT 1441
_____	_____	MAT 2345	(3 SH; F)	Discrete Math	MAT 1441
_____	_____	MAT 3701	(3 SH; F)	Prob & Stat I	MAT 2442

### Required Computer Science Courses

<u>Grade</u>	<u>Semester</u>				<u>Prereq.</u>
_____	_____	CSM 2170	(4 SH; F,S)	Computer Science I	MAT 1441 (co-req)
_____	_____	CSM 2670	(3 SH; F,S)	Computer Science II	CSM 2170
_____	_____	CSM 3570	(3 SH; F)	Numerical Analysis	CSM 2170, MAT 2550
_____	_____	CSM 3670	(3 SH; F)	Computer Systems	CSM 2670
_____	_____	CSM 3770	(3 SH; S)	Combinatorial Computing	MAT 2345
_____	_____	CSM 3870	(3 SH; F)	Data Structures	MAT 2345, CSM 2670
_____	_____	MIS 4700	(3 SH; F)	Advanced Networking	CSM 3870
_____	_____	MIS 4770	(3 SH; F)	Database and Data Management	CSM 3870
_____	_____	CSM 4885	(3 SH; F)	Theory of Computation	MAT 2345, CSM 2670
_____	_____	CSM 4985	(3 SH; S)	Artificial Intelligence	MAT 2345, CSM 2670, MAT 3701
_____	_____	CSM 4970	(3 SH; S)	Operating Systems	CSM 3670
_____	_____	CSM 4270	(3 SH; F)	Principles of Languages	CSM 2670, CSM 3670
_____	_____	CSM 4880	(3 SH; S)	Algorithms	CSM 3870
_____	_____	CSM 3980	(3 SH; S)	Parallel Programming	CSM 3570, CSM 3870
_____	_____	CSM 4275	(3 SH)	Internship	CSM 3870, Junior standing

### Elective courses

Ten additional semester hours of mathematics or computer science courses are needed. These must be at the 3000 or higher level. Independent Study hours are possible and subject to instructor and chair approval. Some possible options are listed below, please consult your advisor or a computer science faculty to find out when these course might be offered or for possible additional courses being offered.

CSM 4873 (3 SH, S) - Introduction to Cryptography

CSM 4370 (3 SH, F) - Topics in Computer Science (repeatable for up to 6 SH)

CSM 3070 (1 SH, F, S) - Competitive Programming (repeatable for up to 2 SH)