NAME:	STUDENT ID#:	LAST UPDATED:

UNIVERSITY OF NEBRASKA AT OMAHA
COLLEGE OF INFORMATION SCIENCE & TECHNOLOGY

Optional Concentrations

MAJOR: COMPUTER SCIENCE

GAME PROGRAMMING & DESIGN (18 CREDIT HRS)

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (9 HRS)				
CSCI 2510	Intro to Game Prgrmng			
CSCI 3510	Adv Game Programming			
CSCI 4620	Computer Graphics			
ELECTIVE COURSES* (9 HRS)				
CSCI 1280	Intro to Computational Science			
CSCI 2310	Video Game Design			
CSCI 2620	2-D Graphics and Image Processing			
CSCI 4250	Human-Comp Interaction			
CSCI 4260	UI Design & Development			
CSCI 4450	Intro to Artificial Intelligence			
CSCI 4660	Automata, Comp & Formal Lang.			
CSCI 4850	Database Mgmt Systems			
ART 3140	Comp Generated Imagery			
ART 3160	Game Design as Art			
Note: Limit of 1 Non-CSCI Elective Course				
Remaining:	18	Compl:	0	

INFORMATION ASSURANCE (18 CREDIT HRS)

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (9 HRS)				
CYBR 3600	Info Security, Policy & Aware			
CYBR 4360	Found of Info Assurance			
CSCI/CYBR 4380	Comp & Network Forensics			
ELECTIVE COURSES* (9 HRS)				
CYBR 2600	Systems Administration			
CSCI/CYBR 3450	Natural Language Processing			
CSCI/MATH 4560	Nmbr Theory&Cryptography			
CYBR 3570	OR Cryptography			
CYBR 4390	Mobile Device Forensics			
CSCI/CYBR 4430	Quantum Computing and Cryptography			
CYBR 4440	Industrial Control System Security			
CYBR 4450	Host-Based Vulnerability			
CYBR 4460	Network-Based Vulnerability			
CYBR/CIST 4540	Computer Security Mgmt			
Remaining:	18	Compl:	0	

INTERNET TECHNOLOGIES (18 CREDIT HRS)

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (9 HRS)				
CSCI 2850	Prgrmming on the Internet			
CSCI 3830	Adv JAVA Programming			
CSCI 3850	Funds of Web Search Tech			
ELECTIVE COURSES* (9 HRS)				
CSCI 3450	Natural Language Proc			
CSCI 4150	Graph Theory & Apps			
CSCI 4250	Interactions			
CYBR 4460	Network Vuln. Discovery			
CSCI 4900	Internet Systems Devlp.			
CSCI 4470	Pattern Rcognitions			
CSCI 4850	Database Management			
CSCI 4890	Data Warehousing & Data Mining			
Remaining:	18	Compl:	0	

ARTIFICIAL INTELLIGENCE CONCENTRATION (18 CREDIT HRS)

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (6 HRS)				
CSCI 3450	Natural Language Processing			
CSCI 4450	Intro to Artificial Intelligence			
ELECTIVE COURSES* (12 HRS)				
CSCI 2410	Intro to Python and Data Analytics			
CSCI 2510	Intro to Game Programming			
CSCI 3510	Adv. Game Programming			
CSCI 3850	Foundations of Web Search Tech			
CSCI 4150	Graph Theory & Application			
CSCI 4250	Human Comp Interaction			
CSCI 4470	Pattern Rcognitions			
CSCI 4850	Database Management			
CSCI 4890	Data Warehousing & Data Mining			
ISQA 4010	Business Ingelligence			
MATH 4450	Machine Learning & Data Mining			
PHIL 2010	Symbolic Logic			
Remaining:	18	Compl:	0	

SOFTWARE ENGINEERING (18 CREDIT HRS)

Course #	Course Name	Grade	Cr	Notes
CORE COURSES (6 HRS)				
CSCI 3830	Adv Java Programming			
CSCI 4250	Human Comp Interaction			
ELECTIVE COURSES* (12 HRS)				
CSCI 2830	Object-Orientated Software Engineering Fund.			
CSCI 4260	UX Design			
CSCI 4850	Database Management			
CSCI 4900	Internet Systems Development			
CIST 4910	Systems Dev. in Open Source Communities			
Remaining:	18	Compl:	0	

*** Elective lists are not exhaustive. Students may take other relevant courses as electives with prior approval of the Computer Science Undergraduate Program Committee (UPC).**

CSCI majors may complete the concentrations above and apply selected courses toward the Core Extension area.

Students are responsible for prerequisite courses.

Last update: March 2023

Advising worksheet corresponds to the 2023-2024 UNO Catalog.

All courses must be C- or higher