

## **Bachelor of Science Computer Science**

with Cyber Security Analytics Certificate
Graduation Planning Strategy

Total Program Hours: 120 \* Minimum grade of C required.

# Name & UID:

Year One			31	Total Credit Hours (Fall 15, Spring 16)
Course	Sem.	Grade		Prerequisites
CS1030 Survey of CS & CEG			1	None (General Elective) Freshman Status Only
CS 1180*/1180L Computer Science I			4	MTH 1280 or MPL 40
ENG 1100* Academic Writing & Reading			3	
CS 2200*/2200R Discrete Struct & Algorithms or			4	CS1200 or (MTH 1280 or MPL40)
MTH 2570* Discrete Mth for Comp			4	MTH 1280 or MPL 40
WSU Core Course			3	Suggested Element Global Traditions History
EGR 1900 Exploring Engineering Internships			1	None (Recommended General Elective)
CS 1181*/1181L Computer Science II			4	CS 1180 and (MTH 1280 or MPL 40)
MTH 2300 Calculus I			4	MPL 50 <b>or</b> MTH 1350
CEG 2350/2350L Operating System Concepts and Usage			4	CS 1160 or CS 1180 or CEG 2170
CS 1000 Tech & Society (WSU Core Global Traditions)			3	None
	Course  CS1030 Survey of CS & CEG  CS 1180*/1180L Computer Science I  ENG 1100* Academic Writing & Reading  CS 2200*/2200R Discrete Struct & Algorithms or  MTH 2570* Discrete Mth for Comp  WSU Core Course  EGR 1900 Exploring Engineering Internships  CS 1181*/1181L Computer Science II  MTH 2300 Calculus I  CEG 2350/2350L Operating System Concepts and Usage	Course  CS1030 Survey of CS & CEG  CS 1180*/1180L Computer Science I  ENG 1100* Academic Writing & Reading  CS 2200*/2200R Discrete Struct & Algorithms or  MTH 2570* Discrete Mth for Comp  WSU Core Course  EGR 1900 Exploring Engineering Internships  CS 1181*/1181L Computer Science II  MTH 2300 Calculus I  CEG 2350/2350L Operating System Concepts and Usage	Course  Course  Course  CS1030 Survey of CS & CEG  CS 1180*/1180L Computer Science I  ENG 1100* Academic Writing & Reading  CS 2200*/2200R Discrete Struct & Algorithms or  MTH 2570* Discrete Mth for Comp  WSU Core Course  EGR 1900 Exploring Engineering Internships  CS 1181*/1181L Computer Science II  MTH 2300 Calculus I  CEG 2350/2350L Operating System Concepts and Usage	Course         Sem.         Grade           CS1030 Survey of CS & CEG         1           CS 1180*/1180L Computer Science I         4           ENG 1100* Academic Writing & Reading         3           CS 2200*/2200R Discrete Struct & Algorithms or         4           MTH 2570* Discrete Mth for Comp         4           WSU Core Course         3           EGR 1900 Exploring Engineering Internships         1           CS 1181*/1181L Computer Science II         4           MTH 2300 Calculus I         4           CEG 2350/2350L Operating System Concepts and Usage         4

Make Full Major Admission Appointment with your advisor after successfully completing ENG1100, CS1180, CS1181, and MTH2570 or CS2200 with a 2.25 GPA and 24 or more semester hours. Must be a full major to take the following courses ERG 3350, CS 2210, CS 3200, or any 4000 level technical electives.

#### Year Two

### 31 Total Credit Hours (Fall 15, Spring 16)

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	Course	Sem.	Grade		Prerequisites
	CEG 3310/3310L* Computer Organization			4	CS 1181 or (CEG2170 and(CEG 3320 or EE2000))
_	Natural Science			4	See list on back
Ľ	MTH 2310 Calculus II			4	MTH 2300
	CEG 3400 Introduction to Cyber Security			3	CS 1160* or CS 1180* or CS 2170*
	CS 3100* Data Structures & Algorithms			3	CS1181 and CEG3310 and (MTH2570 or CS2200)
,,	Natural Science			4	See list on back
SNI	ENG 2140 Research, Tech Wrting & Presentation for Sci & Eng or			3	ENG 1100 or ENG 1110 or ENG 1130 or ENG 1140
Ad:	ENG 2140 Research, Tech Wrting & Presentation for Sci & Eng <b>or</b> EGR 3350 Technical Comm for Engineers and Comp Sci			3	ENG 1100
	WSU Core Course			3	Suggested Element Arts or Humanities
	MTH 2530 Elementary Linear Algebra			3	MTH 2300

### **Year Three**

### 31 Total Credit Hours (Fall 16, Spring 16)

		Course	Sem.	Grade		Prerequisites
		WSU Core Course			4	suggested element Science
	CS 3200 Theore	tical Foundations of Computing <b>or</b>			3	CS 3100*
	CS 2210 Logic fo	or Computer Scientists			3	MTH 2570 <b>or</b> CS 2200
FALI		General Elective			3	
_		ics for Engineers <b>or</b>			3	EGR 1010 <b>or</b> MTH 2300
	STT 3600 Applie	ed Statistics I			3	MTH 2310
	CEG 4350 Oper	ating System Internals and Design			3	CS 3100* and CEG 3310*
	CEG 4110 Indro	duction to Software Engineering			3	CS3100*
9		WSU Core Course			3	suggested element Social Science
SPRING		General Elective			3	
SP		CS/CEG 3000 level Tech Elective			3	
	CEG 4424 Secui	rity Attacks and Defenses			3	CEG 4350

Make a Senior Check appointment with the department for permission to register for CEG4980 Team Projects I. Apply for Graduation

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Element

Element VI

	Course	Sem.	Grade		Prerequisites
	CS3180 Comparative Languages			3	CS 3100*
4	CEG4980 Team Projects I			3	CS 3100 and (EGR 3350 or ENG 2140) Department Permission
FA	CEG 4430 Cyber Network Security			3	CS 3100*
	CS/CEG 4000 level Tech Elective			3	
	CEG 4981 Team Projects II			3	CEG 4980
9	CS/CEG 4000 level Tech Elective			3	Cyber Security Analytics Elective - See list below
SPRIN	CS/CEG 4000 level Tech Elective			3	
SP	General Elective			3	
	WSU Core Course			3	suggested element Social Science
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# Consult uAchieve for complete and updated course listings

**Global Traditions (6 credit hours)** 

One History: CLS1500, HST1100, 1200 and CS1000(IW)

Arts or Humanities (3 credit hours)

One Course: ART2140, CLS1600, 2040(IW), ENG2040(IW), 2050(IW,MC), 2310(IW,MC), ML2020(MC), 2040(MC), 2050(MC) MP1310, MUS1210, 2140, 2420(IW,MC), 2900(IW,MC), PHL2040(IW), 2050(IW), 2100, REL2040(IW), TH2140, UH2010(IW)

Social Science (6 credit hours)

Two Courses from Different Disciplines: ATH2200, EC2000(IW), 2040, 2050, 2500(IW,MC), 2900(IW,MC), FIN2050, PLS2000(MC after F15,IW), 2120(MC),PSY1010(IW), SOC2000(IW, MC after SU15), SW2720(IW,MC), UH2020(IW), WGS2000(IW,MC)

Natural Science (8 credit hours)

BIO1120, 1150, CHM1210 & 1210L, 1220 & 1220L, EES2510. EES2550, PHY 2400 & 2400L, 2410 & 2410L

#### Additional Core Courses (7 credit hours)

MTH 2310 Calculus II and one additional course from Element VI CHM1210/1210L, 1220/1220L, BIO1120, 1150, EES2510, 2550, PHY2400/2400L, 2410/2410L

A minimum of two core courses in the major must be designated as MC and IW.

Computer Science or Computer Engineering Tech Electives (21 credit hours) 6 credit hours of 3000 level and 15 credit hours of 4000 level classes from CS or CEG

General Electives (10 credit hours) Including CS 1030 and EGR 1900

#### **Cyber Security Analytics Electives**

Choose one course: CEG 4410, 4420, 4422, 4750, 4426, 4324, 4440. This list is subject to change for most up to date information go to wright.edu/cse and see the Undergraduate Cyber Security Analytics certificate.

#### **Notes**

Technical Electives: Some technical electives require additional pre-requisites please check specific course descriptions.

General Elective courses may be any course taken for credit. KNH courses are excluded