# Wright State University

# Bachelor of Science

College of Engineering and Computer Science
Department of Computer Science & Engineering

# COMPUTER SCIENCE with Cyber Security Analytics Certificate

Name & UID

Term One, Fall	Credit Hours	Pre-Requisites
CS1180 Comp Sci I*	4	MTH1280 or Level 40
ENG1100 Academic Writing & Reading*	3	
MTH2570 Discrete Mth for Comp or CS2200 Discrete Struct & Algorithms*	4	For MTH2570 - MTH1280 or Level 40 For CS2200 - CS1200
CS1030 Survey of CS & CEG	1	
CS1000 Tech & Society	3	WSU Core Global Traditions
Total Hours	15	

Term Two, Spring	Credit Hours	Pre-Requisites
CS1181 Comp Sci II*	4	(CS1180 or CS1161) & (MTH1280 or Level 40)
MTH2300 Calc I	4	MTH1340 <b>or</b> Level 50
EGR1900 Intro to Co-Op and Internship	1	Recommended
CEG2350 OS Concepts & Usage	4	CS1180 or CS1160 or CEG2170
WSU Core	3	
Total Hours	16	

Term Three, Fall	Credit Hours	Pre-Requisites
CEG3310 Comp Org*	4	CS1181*
Natural Science	4	See list on back
MTH2310 Calc II	4	MTH 2300
CEG 3400 Intro to Cyber Security	3	CS1181*
Total Hours	15	

Term Four, Spring	Credit Hours	Pre-Requisites
CS3100 Data Struct & Algorithms*	3	CS1181 & CEG3310 & CEG2350 & (MTH2570 or CS2200*)
Natural Science	4	See list on back
EGR3350 Tech Comm <b>or</b> ENG 2140	3	ENG1100
WSU Core	3	
MTH2530 Elem Linear Alg	3	MTH2300
Total Hours	16	

Term Five, Fall	Credit Hours	Pre-Requisites
CS3200 Theory Foundation Comp <b>or</b> CS2210 Logic Comp Sci	3	CS3100 & (MTH2570 <b>or</b> CS2200*)
General Elective	3	
CS3180 Comparative Lang	3	CS3100*
ISE2211 <b>or</b> STT3600	3	MTH2300
CEG4350 Os Internals & Desg	3	CS3100
Total Hours	15	

Term Six, Spring	Credit Hours	Pre-Requisites
CEG4110 Intro to Software Eng	3	CS3100*
WSU Core	3	
General Elective	3	
CS or CEG Tech Elective 3000 level	3	
CEG 4424 Attacks & Defenses	3	CEG 4350
Total Hours	15	

Term Seven, Fall	Credit Hours	Pre-Requisites
General Elective	3	
CEG4980 Team Projects I	3	CS3100* and (EGR3350 or ENG2140) Advisor Approval
CEG 4430 Network Security	3	CS3100*
WSU Core (Mth or Sci Elec)	3	
Total Hours	12	*Minimum and of Committee

Term Eight, Spring	Credit Hours	Pre-Requisites
CS or CEG Tech Electives 4000 level (total 9 crdt hrs)	3  3	
CEG4981 Team Projects II	3	CEG 4980
WSU Core	3	
General Elective	1	
Cyber Security Tech Elective Choose 1:CEG4410, 4420, OR 4422	3	Varies based on class chosen
Total Hours	16	

**Program Total Hours: 120** 

## Wright State Core

#### Element III. Global Traditions (6 hours)

One Global Traditions: AFS2000,ATH2500, CS1000, CST2210, 2310, 2320, 2410, 2420, 2430, 2510, EC2100, 2500, 2900, RST2610, 2620, 2710, 2810, 2910, 2920, URS2000

One History: CLS1500, HST1100, HST1200

#### Element IV. Arts or Humanities (3 hours)

**One Course:** ART2140, CLS2040, CST2310, 2420, ENG2040, 2050, MP1310, MUS1210, 2140, 2900, PHL2040, REL2040, UH2010

#### Element VI. Natural Science (8 hours)

Select two of the following laboratory science courses: CHM1210 & 1210L, 1220 & 1220L, BIO1120, 1150, with labs PHY 2400 & 2400L, 2410 & 2410L, EES 2510,2520

#### Additional Core Courses (7 hours)

MTH 2310 Calculus II , additional courses in MTH, STT, CHM, BIO, PHY, or EES appropriate for Computer Science or Engineering majors.

A minimum of two courses must be designated as MC and IW.

#### Element V. Social Science (6 hours)

Two Courses from Different Disciplines: ATH2200, EC2100, 2040, 2050, 2500, 2900, PLS2000, PSY1010, SOC2000, UH2020, WMS2000

### Consult DARS for complete and updated course listing

#### Computer Science or Computer Engineering Tech Electives: (21 hours)

Upper Level (15 hours) - 4000 level courses from CS or CEG

#### Notes:

- 1 Technical Electives: Some technical electives require additional pre-requisites please check specific course descriptions.
- 2 MTH2570 is the entry level math course for the BA degree program. Pre-requisite math courses may be necessary for students with math skills below this level.
- ${\mathfrak Z}$  General Elective courses may be any course taken for credit and for a grade. KNH courses are excluded