TAYLOR UNIVERSITY
1846

Student Name: _____

Student ID: _____

Core Requirements

_____	COS 103	1	Computer Science and Engineering: New Majors Orientation
_____	COS 109	3	Computer and Network Operations
_____	COS 120	4	Introduction to Computational Problem Solving
_____	COS 121	4	Foundations of Computer Science
_____	COS 143	3	Interactive Webpage Development
_____	COS 232	3	Computer and Network Security I
_____	COS 243	3	Multi-tier Web Application Development
_____	COS 265	4	Data Structures and Algorithms
_____	COS 491	1	Computer Science Senior Capstone
_____	MAT 151	4	Calculus I
_____	MAT 210	4	Introductory Statistics

Select <u>one</u> course from the following:

_____	COS 311	3	Ethics in Computer Science
_____	COS 321H	3	Ethics and Technology

Concentrations – *Students must select <u>one</u> of the following concentrations:*

Cybersecurity

_____	COS 284	3	Introduction to Computer Systems
_____	COS 323	3	Computer and Network Security II
_____	COS 331	3	Data Communications
_____	COS 343	3	Database Systems
_____	COS 393	3	Practicum
_____	COS 411	3	Digital Forensics
_____	COS 421	3	Operating Systems
_____	COS 432	3	Software Reverse Engineering and Analysis
_____	COS 492	3	Senior Project
_____	MAT 215	3	Discrete Mathematics for Computer Science
_____	POS 350	3	International Security

Select <u>two</u> courses from the following:

_____	COS 280	3	Introduction to Artificial Intelligence
_____	COS 320	3	Algorithm Design
_____	COS 381	3	Computer Architecture
_____	COS 382	3	Language Structures
_____	COS 435	3	Theory of Computation
_____	COS 436	3	Parallel and Distributed Computing
_____	SYS 411	3	Machine Learning

Digital Media Systems

_____	ART 152	3	Visual Communication
_____	ART 154	1	Digital Tools: Illustrator
_____	ART 156	1	Digital Tools: Photoshop
_____	ART 253	3	Foundations of Photography
_____	ART 456	4	Motion Design
_____	COS 326	3	Data Visualization
_____	COS 350	3	Computer Graphics
_____	COS 393	3	Practicum
_____	COS 492	3	Senior Project
_____	FMA 215	3	Audio Production
_____	FMA 220	3	Film and Video Production
_____	MAT 382	3	Advanced Statistical Methods
_____	SYS 214	3	Principles of Human Computer Interaction
_____	SYS 330	3	Human Relations in Organizations
_____	SYS 390	3	Information Systems Analysis
_____	SYS 394	4	Information Systems Design

Select <u>one</u> course from the following:

_____	COS 331	3	Data Communications
_____	COS 351	3	Computer Vision
_____	COS 424	3	Surfaces and Modeling
_____	COS 486	3	Game Engine Architecture
_____	SYS 310	3	E-Commerce

Select <u>one</u> course from the following:

_____	ART 151	3	Two-Dimensional Design
_____	ART 251	3	Typography
_____	ART 353	3	Commercial Photography
_____	CAC 345	3	Writing for Interactive Media
_____	FMA 230	3	Scriptwriting

Select <u>one</u> course from the following:

_____	ENT 422	3	New Venture Planning
_____	MGT 201	3	Introduction to Business
_____	MGT 403	3	Operations Management
_____	SYS 214	3	Principles of Human Computer Interaction
_____	SYS 310	3	E-Commerce
_____	SYS 352	3	Knowledge Based Systems

Information Systems and Analytics

_____	COS 284	3	Introduction to Computer Systems
_____	COS 326	3	Data Visualization
_____	COS 393	3	Practicum
_____	COS 492	3	Senior Project
_____	MAT 215	3	Discrete Mathematics for Computer Science
_____	MAT 382	3	Advanced Statistical Methods
_____	SYS 330	3	Human Relations in Organizations
_____	SYS 390	3	Information Systems Analysis
_____	SYS 394	4	Information Systems Design

Select one course from the following:

_____	COS 320	3	Algorithm Design
_____	COS 382	3	Language Structures
_____	COS 435	3	Theory of Computation

Select 12 credits from the following:

_____	COS ___	1-12	*Computer Science Elective*
_____	MAT 230	4	Calculus II
_____	MAT 240	4	Calculus III
_____	MAT 251	4	Differential Equations
_____	MAT 310	3	Mathematical Modeling with Numerical Analysis
_____	MAT 345	4	Linear Algebra
_____	MAT 401	3	Operations Research
_____	MGT 403	3	Operations Management
_____	NAS 480	1	Seminar
_____	SYS 214	3	Principles of Human Computer Interaction
_____	SYS 352	3	Knowledge Based Systems
_____	SYS 402	3	Modeling and Simulation
_____	SYS 411	3	Machine Learning

Select one of the following:

_____	MAT 311	3	Introduction to Data Science
_____	MAT 401	3	Operations Research
_____	SYS 402	3	Modeling and Simulation
_____	SYS 411	3	Machine Learning

Select one of the following:

_____	ENT 422	3	New Venture Planning
_____	MGT 201	3	Introduction to Business
_____	MGT 403	3	Operations Management
_____	SYS 214	3	Principles of Human Computer Interaction
_____	SYS 310	3	E-Commerce
_____	SYS 352	3	Knowledge Based Systems

Theory

_____	COS 284	3	Introduction to Computer Systems
_____	COS 310	1	Current Literature Survey
_____	COS 320	3	Algorithm Design
_____	COS 382	3	Language Structures
_____	COS 435	3	Theory of Computation
_____	COS 452	3	Research I
_____	COS 453	3	Research II
_____	MAT 215	3	Discrete Mathematics for Computer Science

Select two courses from the following:

_____	COS 381	3	Computer Architecture
_____	COS 421	3	Operating Systems
_____	COS 436	3	Parallel and Distributed Computing

Select 15 credits from the following:

_____	COS ___	1-15	*Computer Science Elective*
_____	MAT 230	4	Calculus II
_____	MAT 240	4	Calculus III
_____	MAT 251	4	Differential Equations
_____	MAT 310	3	Mathematical Modeling with Numerical Analysis
_____	MAT 345	4	Linear Algebra
_____	MAT 401	3	Operations Research
_____	MGT 403	3	Operations Management
_____	NAS 480	1	Seminar
_____	SYS 214	3	Principles of Human Computer Interaction
_____	SYS 352	3	Knowledge Based Systems
_____	SYS 402	3	Modeling and Simulation
_____	SYS 411	3	Machine Learning

Total Major Hours Required: 76-92

_____   *Attendance at 21 Computer Science and Engineering sanctioned events is required.*

Note: Courses used to meet a core requirement may not double count as an elective

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Degree Requirements

- 128 minimum hours and 42 minimum upper-division hours (3XX/4XX course numbers).
- Fifty percent of the minimum hours must be completed at Taylor—64 hours.
- Fifty percent of the major/minor hours must be completed at Taylor.
- 22 of the last 30 hours earned must be completed at Taylor.
- Cumulative GPA of 2.0; major GPA of 2.3 (higher GPA may be required in certain curricula). (See current catalog for policy).
- All foundational core, major, minor, and proficiency requirements must be completed (including Senior Comprehensive Exam/Paper/Project).
- Two years of one foreign language is required for the BA degree.
- Candidates for 2 degrees must complete a minimum of 158 semester hours and meet all requirements for 2 different majors.