![Kent State University logo]

Roadmap: Digital Sciences – Digital Systems Software Development – Bachelor of Science
DS-BS-DS-DSSD
School of Digital Science
Catalog Year: 2015-2016

This roadmap is a recommended semester-by-semester plan of study for this major. However, courses and milestones designed as critical (!) must be completed in the semester listed to ensure a timely graduation.

Critical	Course Subject and Title	Credit Hours	Min. Grade	Major GPA	Attribute	Notes
Semester One [16 Credits]						
!	**DSCI 10010 Society, Culture and the Digital Sciences** [1]	**3**		■		
	DSCI 10310 My Story on the Web	3		■		
	US 10097 Destination Kent State: First Year Experience [2]	1				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semester Two [15 Credits]						
!	**DSCI 10410 Information Ethics and Social Responsibility** [3]	**3**		■		
!	**DSCI 13210 Design Processes and Principles** [3]	**3**		■		
!	**DSCI 15310 Computational Thinking and Programing**	**3**		■		
!	**MIS 24053 Introduction to Computer Applications**	**3**		■		
	Kent Core Requirement	3				
Semester Three [16 Credits]						
!	**MIS 24065 Web Programming**	**3**		■		
	CS 13001 Computer Science I-Programming And Problem Solving (4) *or* CS 13011 Computer Science IA-Procedural Programming (2) *and* CS 13012 Computer Science IB-Object Oriented Programming (2)	4		■		
	DSCI 23410 Cognition in Technology [1]	3		■		
	Kent Core Requirement	3				
	Kent Core Requirement	3				
Semester Four [16 Credits]						
!	**DSCI 34410 Digital Information Management and Processing** [3]	**3**		■		
	CS 23001 Computer Science II-Data Structures and Abstraction	4		■		
	CS 23022 Discrete Structures for Computer Science	3		■		
	DSCI 33310 Human-Computer Interaction [3]	3		■		
	Kent Core Requirement	3				
Semester Five [15 Credits]						
!	**DSCI 41610 Digital Systems Security** [1]	**3**		■		
	CS 33901 Software Engineering [1]	3		■		
	Kent Core Requirement	3				
	Kent Core Requirement	3				
	Approved Electives in Digital Sciences or Related Area [6]	3		■		
Semester Six [15 Credits]						
!	**CS 33007 Introduction to Database System Design (3)** *or* **MIS 44043 Database Management Systems (3)**	**3**		■		
!	**DSCI 41510 Project Management and Team Dynamics** [3]	**3**	C [5]	■	WIC	
!	**TECH 46411 Requirements Engineering and Analysis**	**3**		■		
	Kent Core Requirement	3				
	Approved Electives in Digital Sciences or Related Area [6]	3		■		
Semester Seven [15 Credits]						
!	**DSCI 40910 Capstone in Digital Sciences** [1]	**3**		■	ELR	
	Kent Core Requirement	3				
	Kent Core Requirement	3				
	General Electives [4]	6				
Semester Eight [12 Credits]						
	Approved Electives in Digital Sciences or Related Area [6]	3		■		
	General Electives [4]	9				

Graduation Requirements Summary

Minimum Total Hours	Minimum Upper-Division Hours 30000 – 40000 level course	Minimum Kent Core Hours	Minimum	
			Major GPA	Overall GPA
120	39	36	2.000	2.000

1. Offered in fall only.

2. US 10097 is not required of transfer students with 25 credits (excluding College Credit Plus and dual-enrollment credit) or students age 21+ at time of admission.

3. Offered in spring only.

4. Total credit hours depend on meeting minimum 120 credit hours and minimum 39 upper-division hours.

5. Minimum C (2.000) grade required in DSCI 41510 to fulfill the writing-intensive requirement.
6. Approved Electives in Digital Sciences or Related Area (9 credit hours)

Choose from the following pre-approved electives or consult with a DSCI advisor for alternatives:	
CADT 22005 Multimedia and Game Design (2)	ENG 20002 Introduction to Technical Writing (3)
COMM 21008 Social Media Strategies (3)	ENG 30062 Principles of Technical Writing (3)
COMM 26001 Public Communication in Society (3)	ENG 30063 Professional Writing (3)
COMM 35600 Communication in Small Groups and Teams (3)	ENTR 27056 Introduction to Entrepreneurship (3)
COMM 41000 Sports Communication (3)	GEOG 49070 Geographic Information Science (4)
COMM 43000 Communication Technology and Human Interaction (3)	GEOG 49076 Spatial Programming (3)
COMM 45006 Media Use and Effects (3)	GEOG 49080 Advanced Geographic Information Science (3)
COMM 45957 Language, Meaning and Cognition (3)	GEOG 49085 Web and Mobile Geographic Information Science (3)
COMT 21200 Ethical Hacking (3)	ITEC 47413 Digital Video in Education (3)
COMT 36308 Ergonomics in Computer Systems (3)	ITEC 47427 Technology and Learning (3)
COMT 36310 Multimedia Development Tools (3)	ITEC 47430 Computer Applications in Education (3)
COMT 36318 Survey of Information Security, Internet Fraud and Computer Forensics (3)	JMC 20001 Media, Power and Culture (3)
	JMC 21001 Principles of Advertising (3)
COMT 36320 Computer Forensics (3)	JMC 21008 Social Media Strategies (3)
COMT 36321 Network Forensics (3)	JMC 28001 Principles of Public Relations (3)
COMT 36330 Local Area Network Security Fundamentals (3)	MIS 24163 Principles of Management (3) [1]
CS 10001 Computer Literacy (3)	MIS 34036 Enterprise Systems (3)
CS 10051 Introduction to Computer Science (4) KMC	MIS 34054 Using Information Systems for Solving Business Problems (3)
CS 13001 Computer Science I-Programming and Problem Solving (4)	MIS 34060 Operations Management (3)
CS 13011 Computer Science IA - Procedural Programming (2)	MIS 34068 System Analysis and Design (3)
CS 13012 Computer Science IB - Object Oriented Programming (2)	MIS 34070 Programming Theory and Applications (3)
CS 13401 User Level Computer Security (3)	MIS 34158 Managerial and Technological Aspects of Healthcare Systems Management (3)
CS 23001 Computer Science II-Data Structures and Abstraction (4)	
CS 23022 Discrete Structures for Computer Science (3)	MIS 34165 Dynamics of Leadership (3)
CS 33007 Introduction to Database System Design (3)	MIS 44042 Network Theory and Applications (3)
CS 33101 Structure of Programming Languages (3)	MIS 44043 Database Management Systems (3)
CS 33211 Operating Systems (3)	MIS 44045 Information Systems Management (3)
CS 33223 Unix Tools (3)	MIS 44062 Supply Chain Management (3)
CS 33901 Software Engineering (3)	PSYC 11762 General Psychology (3) KSS
CS 35101 Computer Architecture (3)	PSYC 40445 Cognitive Psychology (3)
CS 43202 Systems Administration (3)	TECH 10001 Information Technology (3)
CS 43203 Systems Programming (3)	TECH 26010 Introduction to Computer Engineering Technology (3)
CS 46101 Design and Analysis of Algorithms (3)	TECH 26301 Networking Hardware I (3)
DSCI 10310 My Story on the Web (3)	TECH 33010 Computer Hardware (3)
DSCI 19995 Special Topics in Digital Sciences (1-4)	TECH 36302 Networking Hardware II (3)
DSCI 23410 Cognition in Technology (3)	TECH 43050 Inventive Problem Solving (3)
DSCI 26010 Telecommunication Infrastructure (3)	TECH 43222 Computer Hardware Engineering and Architecture (3)
DSCI 29995 Special Topics in Digital Sciences (1-4)	TECH 46312 Wireless Network and Telecommunication Systems (3)
DSCI 31010 Enterprise Architecture (3)	TECH 46330 Visual Basic Programming in Engineering Technology (3)
DSCI 33310 Human-Computer Interaction (3)	TECH 46350 Network Management and Design Technology (3)
DSCI 39995 Special Topics in Digital Sciences (1-4)	VCD 14001 Visual Design Literacy (3)
DSCI 49910 Emerging Technologies in Digital Sciences (1-3)	VCD 14002 Communicating with Color (3)
DSCI 49992 Internship in Digital Sciences (1-6)	VCD 34004 Visual Ethics (3)
DSCI 49995 Special Topics in Digital Sciences (1-4)	VCD 37000 Visual Design for Media: Advanced (3)
DSCI 49996 Individual Investigation in Digital Sciences (1-3)	1. Equivalent to BMRT 11009 Introduction to Management Technology

University Requirements: Bachelor's degree-seeking students must meet Kent Core (general education requirements), diversity, writing-intensive and experiential learning requirements. For more information about these requirements, please read the following sections in the University Catalog: Kent Core – www.kent.edu/catalog/kent-core; Diversity Course Requirement – www.kent.edu/catalog/diversity; Writing-Intensive Course Requirement – www.kent.edu/catalog/wic; Experiential Learning Requirement – www.kent.edu/catalog/elr.

Attribute Legend: **DD** Diversity–Domestic; **DG** Diversity–Global; **ELR** Experiential Learning; **KAD** Kent Core Additional; **KBS** Kent Core Basic Sciences; **KCM** Kent Core Composition; **KFA** Kent Core Fine Arts: **KHU** Kent Core Humanities; **KMC** Kent Core Mathematics and Critical Reasoning; **KSS** Kent Core Social Sciences; **WIC** Writing Intensive