## **PATHWAYS**

# Computer Information Systems (A.A.S. Degree)

Computer Programming Option FALL 2014-SPRING 2015

REMEDIAL SEQUENCE (if required)					
☐ ESL 1 (8) <b>&gt;&gt;</b>	☐ ESL 2 (6) <b>&gt;&gt;</b>	☐ ESL 3 (6) <b>&gt;&gt;</b>	☐ ENG 9 (4)		
☐ ENG 1 (4) <b>→</b>	☐ ENG 2 (4)				
☐ RDL 1 (5) <b>→</b>	☐ RDL 2 (5)				
☐ MTH 1 (4) ▶	☐ MTH 5 (6)				
☐ CHM 2 (4)					
GRADUATION REQUIREMENTS					
☐ CAT-R	☐ CAT-W	☐ CAT-M	☐ GPA ≥ 2.0		
☐ Writing Intensive 1 ☐ Writing Intensive 2		2			
FRESHMAN REQU	JIREMENT				

Flexible Core E: BIO 20/ HLT 20

FYS 11 / OCD 1

<sup>4</sup>Students who have completed MTH 06 (or three years high school mathematics) and intend to transfer to a four-year college may take BUS 41 instead of BUS 111.

<sup>5</sup>CWE 31 is a two (2) credit course. A student should enroll in CWE one year before graduating or when starting the third semester. See the CWE advisor in Loew Hall, Career Services, during the second semester. Students who are employed full-time are not required to complete CWE. A waiver must be obtained from the Department Chairperson by submitting documentation of current full-time employment. After a written waiver of CWE is obtained, the student must substitute the required CWE credits with any course(s) offered by the Business and Information Systems Department. College Work-Study assignments within CUNY may not be used as substitutes for the CWE internship.

### REQUIRED COMMON CORE (course list available online)

ПА	English Composition	
	ENG 10 <b>OR</b> ENG 11; <b>AND</b> ENG 12 <b>OR</b> ENG 14 <b>OR</b> ENG 15 <b>OR</b> ENG 16	6
□в	Mathematical and Quantitative Reasoning <sup>1</sup>	
	MTH 21 Survey of Mathematics I <b>OR</b> MTH 23 Probability and Statistics	3
	Life and Physical Sciences <sup>2</sup>	
□ c	AST 111, BIO 11, CHM 11, CHM 17, ENV 11	
	ESE 11, ESE 12, ESE 13, PHY 110 or PHY 11	3-4
	Subtotal:	12-13

#### FLEXIBLE COMMON CORE (course list available online)

☐ A World Cultures and Global Issues	İ
HIS 10 History of the Modern World <b>OR</b>	ĺ
HIS 11 Introduction to the Modern World	3
☐ B - US Experience in its Diversity³, OR	
☐ C - Creative Expression <sup>3</sup> , OR	
☐ E - Scientific World <sup>3</sup>	3
☐ D Individual and Society	
COMM 11 Fundamentals of Interpersonal Communication	3
Subtotal:	9

#### **SPECIALIZATION REQUIREMENTS**

☐ ACC 111	Fundamental Accounting I	4
☐ BIS 13	Introduction to Internet and Web Development	3
☐ BUS 10	Introduction to Business <sup>3</sup>	3
☐ BUS 111	Applications of Mathematics for Business <sup>4</sup>	3
COMM 12	Voice and Diction: Business and Professional Speech	2
☐ DAT 30	Introduction to Computer Fundamental and Programming	3
□ DAT 33	Microcomputer Applications	2
□ DAT 35	BASIC Language Programming	3
☐ KEY 10	Keyboarding for Computers	1
☐ CWE 31	Cooperative Work Experience <sup>4</sup>	2
□LAB	Lab science credit <sup>2</sup>	0-1
	Subtotal:	26-27

#### COMPUTER PROGRAMMING OPTION:

□ DAT 38	Database Management Applications	3
☐ DAT 47	JAVA Programming	3
☐ DAT 48	Advanced JAVA Programming	3
☐ DAT 49	UNIX Fundamentals	3
	Subtotal:	12
	TOTAL	

TOTAL: 60



 $<sup>^{1}</sup>$  Students planning to transfer to a four-year college should take MTH 30 or 31. The prerequisite for MTH 30 is MTH 6.

<sup>&</sup>lt;sup>2</sup> Students may select either a 4-credit or a 3-credit science course. Students selecting a 3-credit course must also complete an additional 1-credit lab course to fulfill graduation requirements.

<sup>&</sup>lt;sup>3</sup> Flexible Core B: COMM 20, ECO 12, HIS 20, HIS 23, HIS 24, HIS 51, POL 11, and POL 41 Flexible Core C: ART 11, ART 12, ART 55, ART 56, COMM 26, FRN 122, ITL 122, MUS 11, MUS 12, SPN 125, SPN 130, and SPN 131