



## Information Systems Technology – Networking Concentration

Bachelor of Science | Code: S9500 | 120 credits

**CIP** (1101101034)

**Effective Term: Fall 2024 (2247)**

The Bachelor of Science (BS) in Information Systems Technology (IST) degree program prepares students with essential skills and knowledge to effectively support the design, planning and management of information infrastructures and information resources within diverse organizational settings. The Networking Concentration focuses on how to plan, design, implement and maintain network infrastructures to keep organizations running smoothly. Students learn how to select technologies that best suit the client's needs. Students also acquire the technical skills needed to install, maintain, and extend multi-user computer systems and how to develop administrative policies and procedures.

### **GENERAL EDUCATION REQUIREMENTS – 36 Credits Required**

Courses require a grade of "C" or higher to satisfy the general education requirement.

		<b>Credits</b>	<b>Requisites</b>
<b>1. Communications – 6 Credits Required</b>			
ENC 1101	English Composition 1 (W)	3	Appropriate college placement
ENC 1102	English Composition 2 (W)	3	Pre-Req ENC 1101
<b>2. Oral Communications – 3 Credits Required</b>			
Select one course from the following offerings. These courses also fulfill program requirements.			
SPC 1017	Introduction to Communication (W)	3	
SPC 2608	Introduction to Public Speaking (W)	3	
<b>3. Humanities – 6 Credits Required</b>			
Select one course from Group A-State Core <u>AND</u> one course from Group B-MDC Core.			
<b>Group A: State Core (3 credits)</b>			
ARH 1000	Art Appreciation	3	
HUM 1020	Introduction to Humanities	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
MUL 1010	Music Appreciation	3	
PHI 2010	Introduction to Philosophy (W)	3	
THE 2000	Theatre Appreciation (W)	3	
<b>---AND---</b>			
<b>Group B: MDC Core (3 credits)</b>			
ARC 2701	History of Architecture 1	3	
ARC 2702	History of Architecture 2 (W)	3	
ARH 1000	Art Appreciation	3	
ARH 2050	Art History 1	3	
ARH 2051	Art History 2 (W)	3	Pre-Req ARH 2050
ARH 2740	Cinema Appreciation (W)	3	
DAN 2100	Dance Appreciation	3	
DAN 2130	Dance History 1 (W)	3	
HUM 1020	Introduction to Humanities	3	
IND 1100	History of Interiors 1	3	
IND 1130	History of Interiors 2 (W)	3	
LIT 2000	Introduction to Literature (W)	3	Pre-Req ENC 1101
LIT 2120	A Survey of World Literature 2 (W)	3	Pre-Req ENC 1101, 1102
MUH 2111	Survey of Music History 1	3	
MUH 2112	Survey of Music History 2 (W)	3	Pre-Req MUH 2111
MUL 1010	Music Appreciation	3	
MUL 2380	Jazz & Popular Music in America (W)	3	
PHI 2010	Introduction to Philosophy (W)	3	Pre-Req ENC 1101
PHI 2604	Critical Thinking/Ethics (W)	3	Pre-Req ENC 1101
THE 2000	Theatre Appreciation (W)	3	
<b>4. Behavioral and Social Science – 6 Credits Required</b>			

Choose two courses from Option A OR Option B. Within selected option, one course must be State Core and one MDC Core. Selecting AMH2010 or AMH2020 or POS2041 is recommended as these courses also fulfill the civic literacy graduation requirement.

**Option A (6 credits):** Choose one course from State Core A-Behavioral Sciences and one course from MDC Core A-Social Sciences.

**State Core A: Behavioral Sciences (3 credits)**

ANT 2000	Introduction to Anthropology	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3

**AND**

**MDC Core A: Social Sciences (3 credits)**

AMH 2010	History of the US to 1877	3
AMH 2020	History of the US Since 1877 (♦)	3
ECO 2013	Principles of Economics (Macro (W)	3
ISS 1120	The Social Environment	3
POS 2041	American Federal Government (♦)	3
WOH 2012	History of World Civilization to 1789	3
WOH 2022	History of World Civilization from 1789	3

**--- OR ---**

**Option B (6 credits):** Choose one course from State Core B-Social Sciences and one course from MDC Core B-Behavioral Sciences.

**State Core B: Social Sciences (3 credits)**

AMH 2010	History of the US to 1877	
AMH 2020	History of the US Since 1877 (♦)	3
ECO 2013	Principles of Economics (Macro (W)	3
POS 2041	American Federal Government (♦)	3

**AND**

**MDC Core B: Behavioral Sciences (3 credits)**

ANT 2000	Introduction to Anthropology	3
ANT 2410	Introduction to Cultural Anthropology	3
CLP 1006	Psychology of Personal Effectiveness	3
DEP 2000	Human Growth and Development	3
ISS 1161	The Individual in Society	3
PSY 2012	Introduction to Psychology	3
SYG 2000	Introduction to Sociology	3

**5. Natural Science – 6 Credits Required**

Choose two courses from Option A OR Option B. Within selected option, one course must be State Core and one MDC Core. Laboratory courses do not fulfill this area's requirements.

**Option A (6 credits):** Choose one course from State Core A-Life Sciences and one course from MDC Core A-Physical Sciences

**State Core A: Life Sciences (3 credits)**

BSC 1005	General Education Biology	3	
BSC 2010	Principles of Biology	3	Pre/Co-Req CHM 1045/BSC 2010L
BSC 2085	Human Anatomy and Physiology 1	3	Co-Req BSC2085L
EVR 1001	Introduction to Environmental Science	3	

**AND**

**MDC Core A: Physical Sciences (3 credits)**

AST 1002	Descriptive Astronomy	3	
ESC 1000	General Education Earth Science	3	
PSC 1121	General Education Physical Science	3	Pre-Req MAT 1033
PSC 1515	Energy in the Natural Environment	3	
Any course with prefix CHM*, GLY*, MET*, OCE*, PHY*		3	

**--- OR ---**

**Option B (6 credits):** Choose one course from State Core B-Physical Sciences and one course from MDC Core B-Life Sciences

**State Core B: Physical Sciences (3 credits)**

AST 1002	Descriptive Astronomy	3	
CHM 1020	General Education Chemistry	3	
CHM 1045	General Chemistry and Qualitative Analysis	3	Pre/Co-Req CHM1025 & MAC1105/CHM1045L
ESC 1000	General Education Earth Science	3	
PHY 1020	General Education Physics	3	
PHY 2048	Physics with Calculus 1	4	Pre/Co-Req HS physics, or PHY1025 or 2053,

PHY 2053	Physics (without Calculus) 1	3	or dept. approval, and MAC2311/PHY2048L Pre/Co-Req MAC1147, 1114, 1140/PHY2053L
<b>AND</b>			
<b>MDC Core B: Life Sciences (3 credits)</b>			
BOT 1010	Botany	3	Co-Req BOT 1010L
BSC 1005	General Education Biology	3	
BSC 1030	Social Issues in Biology	3	
BSC 1050	Biology & Environment	3	
BSC 1084	Functional Human Anatomy	3	
BSC 2010	Principles of Biology	3	Pre/Co-Req CHM 1045/BSC 2010L
BSC 2020	Human Biology: Fundamental of Anatomy & Physiology	3	
BSC 2085	Human Anatomy and Physiology 1	3	Co-Req BSC 2085L
BSC 2250	Natural History of South Florida	3	
EVR 1001	Introduction to Environmental Sciences	3	
HUN 1201	Essentials of Human Nutrition	3	
OCB 1010	Introduction to Marine Biology	3	
PCB 2033	Introduction to Ecology	3	Pre-Req PSC1515 or BSC2011
PCB 2340C	Field Biology	3	
ZOO 1010	Zoology	3	Co-Req ZOO 1010L

#### 6. Mathematics – 6 Credits Required

MAC 1105 may be replaced by a higher-level mathematics with prefix MAC\*, MAD\*, MAS\*, or MAP\*. These courses also fulfill program prerequisites.

MAC 1105	College Algebra	3	Pre-Req MAT 1033
STA 2023	Statistical Methods	3	Pre-Req MAT 1033 or MGF 1131

#### 7. General Education Elective – 3 Credits Required

Choose one course from the following options. These courses also fulfill program prerequisites.

ECO 2013	Principles of Economics (Macro) (W)	3	
ECO 2023	Principles of Economics (Micro)	3	Pre-Req MAT 1033

#### Computer Competency Requirement

The following course fulfills MDC's computer competency requirement and a program prerequisite:

CGS 1060C	Introduction to Computer Technology & Applications	4	
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#### Foreign Language Competency Requirement

Students must fulfill this requirement via three options:

**Option A:** Successful completion of two (2) credits (i.e., the equivalent of two years) in one (1) foreign language at the secondary (high school) level.

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**Option B:** Successful completion of the following courses at the elementary 2 level: ASL1150C, CHI1121, FRE1121, GER1121, ITA1121, JPN1121, POR1121, RUS1121, SPN1121. These credits count towards the Lower Division Requirements area.

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**Option C:** Students may demonstrate completion of the elementary 2 level through standardized examination that document the required foreign language competency.

#### LOWER DIVISION REQUIREMENTS – 24 Credits Required

##### Group A: 12 credits

CGS 1060C	Introduction to Computer Technology & Applications	4	
CGS 1540C	Database Concepts and Design	4	
COP 1334	Introduction to C++ Programming	4	Pre/Co CGS 1060C

##### Group B: 4 credits

CTS 1134	Networking Technologies	4	
CTS 1650	CCNA: Cisco Fundamentals	4	

##### Group C: 8 credits

Any transferrable type-1 or type-2 courses. Please see academic advisor for support with course selection, including program prerequisites.

#### UPPER DIVISION REQUIREMENTS – 36 Credits Required

##### Professional Core – 12 Credits Required

CGS 3763	Operating System Principles	4	Pre COP 1334
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CIS 3360	Principles of Information Security	4	Pre CTS 1134 or CTS 1650
CIS 3510	IT Project Management	4	

#### **Discipline Content Core – 24 Credits Required**

CIS 4347	Information Storage Management	4	Pre CGS 1540C
CNT 3409C	Network Security	4	Pre CIS 3360
CNT 3526C	Wireless and Mobile Networking	4	Pre CTS 1134 or CTS 1650
CNT 4603	System Administration and Maintenance	4	Pre CTS 1134 or CTS 1650
CNT 4702	Network Design and Planning	4	Pre CIS 3360
CTS 4955	Networking Capstone	4	Department Permission Required

#### **PROGRAM ELECTIVES – 24 Credits Required**

##### **Group A: 8 credits**

CAP \*, CEN \*, CET \*, CGS \*, CIS \*, CNT \*, COP \*, CTS \*

##### **Group B: 16 credits**

CAP 2\*, CAP 3\*, CAP 4\*, CEN 2\*, CEN 3\*, CEN 4\*, CGS 2\*, CGS 3\*, CGS 4\*, CIS 2\*, CIS 3\*, CIS 4\*, CNT 2\*, CNT 3\*, CNT 4\*, COP 2\*, COP 3\*, COP 4\*, CTS 2\*, CTS 3\*, CTS 4\*, CET 2\*, CET 3\*, CET 4\*, MAC 2333

#### **TOTAL CREDITS**

General Education Requirements _____	36 credits
Lower Division/Common Prerequisite Requirements _____	24 credits
Upper Division Requirements _____	36 credits
Electives _____	24 credits
<b>Total _____</b>	<b>120 credits</b>

#### **IMPORTANT INFORMATION**

**Civic Literacy Competency:** First time in college students for the 2018-2019 school year and thereafter must demonstrate competency in civic literacy to earn a baccalaureate. This requirement may be satisfied by passing AMH2020 or POS2041 (listed under the Social Sciences area), or an equivalent AP or CLEP exam.

**Foreign Language:** Students admitted to the baccalaureate degree program without meeting the foreign language admission requirement of at least 2 courses (8-10 credit hours) of sequential foreign language at the secondary level or the equivalent of such instruction at the postsecondary level must earn such credits prior to graduation.

**Computer Competency:** By the **16th earned** college level credit (excluding EAP and college preparatory courses), a student **must take** the Computer Competency Test and pass

**Or**

By the **31st earned** college level credit (excluding EAP and college preparatory courses), a student **must pass** CGS 1060C, an equivalent continuing education or vocational credit course or retest with a **passing score on the Computer Competency Test.**

**Required Credit Hours and GPA:** The baccalaureate requires student to earn a minimum of 120 unduplicated credit hours with a minimum cumulative grade point average of 2.0. All general education and all upper division requirements must be passed with the grade of "C" or better.

**Pursuing or Have Earned an Associate's Degree:** Students entering with an AS or AAS degree may have more than 24 elective credits and may need additional General Education credits to meet the 36 General Education credits required for the baccalaureate degree. Students entering with an AA degree may need additional electives to provide appropriate background for the baccalaureate program.

**Graduation Requirements:** Students should review their individualized Degree Audit Report to determine the specific graduation policies in effect for their program of study for the year and term they entered Miami Dade College. Students are highly encouraged to meet with their academic advisor on a regular basis and review the College Catalog to learn about all graduation requirements. The final responsibility for meeting graduation requirements rests with the student.