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**COMPUTER PROGRAMMING SPECIALIST –
ASSOCIATE IN APPLIED SCIENCE (CPSP.AAS)**

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*Business, Management, Marketing & Technology
Career Pathway*

**COMPUTER PROGRAMMING SPECIALIST –
ASSOCIATE IN APPLIED SCIENCE (CPSP.AAS)**

Programmers write the detailed sets of instructions computers understand and act on. Emphasis is placed on computer information systems, programming language, concepts and designs, logic and theory. Job opportunities may include applications programmer, computer operator, information office systems manager, operations scheduler, systems analyst or programmer.

Minimum credits:.....	65
Minimum cumulative GPA:.....	2.0
Minimum grade in all courses:.....	2.0
Minimum JCC credits:.....	12
MACRAO Agreement:	No

**GENERAL EDUCATION REQUIREMENTS –
(20 CREDITS)**

ADO 1: Write clearly, concisely and intelligibly (3 credits)

Take the following:

ENG 131 Writing Experience I

ADO 2: Speak clearly, concisely and intelligibly (3 credits)

Choose one of the following:

COM 231 Communication Fundamentals

COM 240 Interpersonal Communication

ADO 3: Demonstrate computational skills and mathematical reasoning (3-5 credits)

Take the following:

MTH 131 Intermediate Algebra or higher

ADO 4: Demonstrate scientific reasoning (4-5 credits)

Choose one of the following:

BIO 110 Introductory Biology

BIO 131 General Biology

BIO 132 Human Biology

BIO 155 Anatomy & Physiology

BIO 220 Microbiology

BIO 253 Human Anatomy and Physiology I

CEM 131 Fundamentals of Chemistry

CEM 141 General Chemistry I

GEL 160 Introduction to Geology

NSC 131 Contemporary Science

PHY 131 Conceptual Physics

PHY 151 Astronomy

PHY 231 College Physics I

PHY 251 Modern University Physics

ADO 5: Understand human behavior and social systems, the principles which govern them, and their implications for the present and future (3-4 credits)

Choose one of the following:

ECN 231 Macroeconomics

ECN 232 Microeconomics

HIS 131 Western Civilization to 1555

HIS 132 Western Civilization 1555 to Present

HIS 231 Development of the US through the Civil War

HIS 232 Development of the US from the Civil War

HIS 235 20th Century History

PLS 141 American National Government

PSY 140 Introduction to Psychology

SOC 231 Principles of Sociology

ADO 6: Understand aesthetic experience and artistic creativity (3 credits)

Choose one of the following:

ART 111 Art History: Prehistoric to 1400

ART 112 Art History: Renaissance to Present

ENG 210 Introduction to Film

ENG 246 Short Story and Novel

ENG 247 Poetry and Drama

ENG 252 Shakespeare

ENG 254 Children's Literature

ENG 255 American Literature - 19th Century

ENG 256 American Literature - 20th Century

HUM 131 Cultural Connections

MUS 131 Understanding Music

THR 116 Introduction to Theatre

ADO 7: Think critically

Program courses meet this requirement

ADO 8: Make responsible decisions in personal and professional contexts (1-3 credits)

Choose one of the following:

HPF 160 Wellness

HPF 186 Weight Training and Wellness

HPF 277 Stress Management

HPF 283 Managing Stress and Holistic Health

PHL 236 Ethics

ADO 9: Work productively with others, recognizing individual contributions to group success

Program courses meet this requirement

ADO 10: Understand and respect the diversity and interdependence of the world's peoples and cultures

Program courses meet this requirement



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COMPUTER PROGRAMMING SPECIALIST RELATED REQUIREMENTS – (10 CREDITS)

Take the following:

ACC 216 Financial Accounting Concepts
BUA 100 Contemporary Business
BUA 120 Human Relations in Business

COMPUTER PROGRAMMING SPECIALIST CORE REQUIREMENTS – (35 CREDITS)

Take the following:

CIS 012 Microsoft® Windows® Workshop
CIS 013 Operating Systems: UNIX
CIS 016 Microsoft® DOS® Workshop
CIS 101 Introduction to Computer Systems
CIS 122 Microsoft® Access® Comprehensive
CIS 143 HTML
CIS 158 Programming Logic
CIS 160 Programming in Visual Basic.NET
CIS 165 JAVA Programming
CIS 170 Programming in C++
CIS 174 PC Repair/A+ Hardware Component
or CNS 101 Network+/Networking Fundamentals
CIS 244 Web Programming
CIS 260 Advanced Visual Basic.NET
CIS 273 Systems Concepts and Design