NORCO COLLEGE

SCHOOL OF Science, Technology, Engineering & Mathematics

See a Counselor for Your Personalized Educational Plan!

Schedule your counseling appointment online at www.norcocollege.edu/services/counseling
Visit www.norcocollege.edu/stempathways for STEM-related services

2022-23 COMPUTER SCIENCE

AS-T COMPUTER SCIENCE

Pathways for Transfer

(IGETC) NAS650

REQUIRED COURSES (29 semester units)		UNITS
CSC/CIS-5	Programming Concepts and Methodology I: C++	4
CSC/CIS-7	Discrete Structures	3
CSC/CIS-11	Computer Architecture and Organization: Assembly	3
CSC/CIS-17A	Programming Concepts and Methodology II: C++	3
MAT-1A	Calculus I	4
MAT-1B	Calculus II	4
PHY-4A	Mechanics	4
PHY-4B	Electricity and Magnetism	4

This academic plan includes major coursework and recommended general education requirements for transfer. ***Transfer requirements vary based on institution***. Please see a counselor to develop your personal educational plan and determine appropriate work/life/school balance.

TERM 1

CSUSB/CPP		UCR	
COURSE	UNITS	COURSE	UNITS
ENG 1A	4	ENG 1A	4
MAT 1A	4	MAT 1A	4
CIS 5	4	CIS 5	4
BIO 1	4	BIO 1 or ANT 1	3-4
COM 1, 6 or 9	3	COM 1, 6 or 9	3
Total Units	**19**	**Total Units**	**18-19**

TERM 2

COURSE	UNITS	COURSE	UNITS
ENG 1B	4	ENG 1B	4
MAT 1B	4	MAT 1B	4
CIS 17A & 18C	6	CIS 17A & 18A	6
PHY 4A	3	PHY 4A	3
Total Units	**17**	**Total Units**	**17**

TERM 3

COURSE	UNITS	COURSE	UNITS
CIS 7	3	CIS 7	3
CIS 17C	3	CIS 17C	3
PHY 4B	4	PHY 4B	4
COM 12	3	COM 12	3
POL 1	3	POL 1	3
Total Units	**16**	**Total Units**	**16**

TERM 4

COURSE	UNITS	COURSE	UNITS
CIS 11	3	CIS 11	3
PHY 4C (CSUSB only)	4	PHY 4C	4
GAM 2	3	GAM 2	3
ECO 7, 8 or 4	3	ECO 7, 8 or 4	3
HIS 6, 7, 13 or 14	3	HIS 6, 7, 13 or 14	3
POL 5, 4 or ADJ 1, 3	3	POL 5, 4 or ADJ 1, 3	3
Total Units	**19**	**Total Units**	**19**

✓ First Term To-Do List

- [ ] Submit official high school transcripts and AP/IB/CLEP exam scores
- [ ] Visit Engagement Center (ST 107)
- [ ] Meet with a counselor to personalize your EduNav plan and to ***determine if you have already met the IGETC foreign language requirement through high school coursework***
- [ ] Register for ILA-800 each term to receive FREE tutoring

✓ Second Term To-Do List

- [ ] Visit the Counseling Center (2nd floor of CSS)
- [ ] Meet with a Mustang Mentor
- [ ] Get involved in ASNC or other student organizations
- [ ] Look for internship, research or volunteer opportunities in your field (s) of interest

✓ Third Term To-Do List

- [ ] Meet with a counselor to verify your transfer status
- [ ] Attend Transfer Fair, transfer workshops and meet with university reps
- [ ] Submit transfer applications (ask about UC TAG)
- [ ] Complete FAFSA before march 2nd (include all transfer institutions that you applied to)

✓ Fourth Term To-Do List

- [ ] Submit Degree Applications via WebAdvisor
- [ ] Complete transfer application updates
- [ ] Finish strong and order final transcripts for your transfer institution along with CSUGE or IGETC certification

A **COMPUTER SCIENCE** degree provides a solid preparation for computer and information technology careers by learning the methods by which data is accessed, stored and retrieved, including representational computation, programming languages, algorithmic modeling, and software design, testing and development. Students will apply their knowledge of mathematics, physics and logic to solve a variety of problems using current technology. Coursework includes programming languages and concepts, systems analysis, mathematics, physics, computer hardware and data structures.

WHERE CAN I WORK?

- Banking & Finance
- Computer & Software Design Firm
- Data Management Firm
- Education
- Government
- Healthcare
- Insurance Company
- Research Firm
- Telecommunications Industry
- Transportation Industry

WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?

Position Title	*CA Annual Openings*	*CA Median Salary*	*In Riverside County Wages will Support*
Computer Operators	320	$97,600	2 adults, 2 children
Computer Repair Technician	1,200	$41,670	1 adult
Computer Systems Analyst	6,220	$107,550	2 adults, 3 children
Computer User Support Specialist	6,580	$65,410	1 adult, 1 child
Desktop Publishers	160	$57,090	1 adult, 1 child
Web Developer	2,720	$81,470	1 adult, 2 children

WHAT CAN I DO WITH MORE EDUCATION AND TRAINING?

Position Title	*CA Annual Openings*	*CA Median Salary*	*In Riverside County Wages will Support*
Bioinformatic Technician	No Data	$48,090	1 adult
Computer Network Architect	1,310	$125,590	2 adults, 5 children
Comp Network Support Specialist	1,770	$71,220	1 adult, 2 children
Computer Programmer	2,270	$101,110	2 adults, 3 children
Computer Research Scientist	470	$134, 650	2 adults, 5 children
Computer Science Professor	230	$121,730	2 adults, 5 children
Computer System Engineer	2,940	$97,600	2 adults, 3 children
Database Administrator	!,080	$101,560	2 adults, 3 children
Information Security Analyst	840	$112,130	2 adults, 4 children
Network & System Administrator	3,180	$95,160	2 adults, 3 children
Software Developer	7,470	130,440	2 adults, 5 children

ESTIMATED COST TO OBTAIN ASSOCIATE DEGREE

60 Units x $46 per unit (CA residents) = $2,760
Health, ASNC, Parking Fees (x 4 terms) = $360
Books & Supplies = $3,944
Total Cost = $7,064

HOW DO I GET STARTED?

⇒ Visit the **Counseling Center** to learn about opportunities in the field and help determining if it is agood fit for your preferred values, strengths, skills, and interests. SSV 2nd floor.

⇒ Attend annual **TRANSFER FAIR** and **TRANSFER CENTER WORKSHOPS** to determine which university is the best fit for you as well as application requirements and transfer process.

⇒ Build **LABORATORY** and **RESEARCH SKILLS** through courses and/or work with professors.

⇒ **JOB SHADOW** and **NETWORK WITH PROFESSIONALS** in positions you wish to obtain.

⇒ Participate in the STEM Club to gain **TEAMWORK** and **LEADERSHIP SKILLS**.

⇒ Practice interpersonal, small group and public speaking **COMMUNICATION SKILLS.**

⇒ Gain experience through **RESEARCH/INTERNSHIP OPPORTUNITIES** such as a NASA internship, Southern California Edison internship or UCR BCOE TUNE Summer Research opportunity.

⇒ Join **PROFESSIONAL ASSOCIATIONS** such as the Association of Information Technology Professionals or the Computing Research Association to network and maintain current knowledge of opportunities in the field.

WHAT SKILLS DO I NEED?

⇒ **Programming** — writing computer programs for various purposes.

⇒ **Active Listening** — giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

⇒ **Complex Problem Solving** — identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

⇒ **Critical Thinking** — using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

⇒ **Quality Control Analysis** — conducting tests and inspections of products, services, or processes to evaluate quality or performance.

PREFERRED WORK STYLES INCLUDE:

⇒ **Attention to Detail** — being careful about detail and thorough in completing work tasks.

⇒ **Analytical Thinking** — analyzing information and using logic to address work-related issues and problems.

⇒ **Integrity** — being honest and ethical.

⇒ **Cooperation** — being pleasant with others on the job and displaying a good-natured, cooperative attitude.

⇒ **Independence** — developing one's own ways of doing things, guiding oneself with little or no supervision, and depending on oneself to get things done.

For more information about careers, education and training requirements, salary data, and job outlooks visit www.onetonline.org, www.bls.gov or www.labormarketinfo.edd.ca.gov/OccGuides.