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 BIOLOGY

AS-T BIOLOGY

Pathways for Transfer

(CSUGE) NAS767 / (IGETC) NAS768

REQUIRED COURSES (32 semester units)		UNITS
BIO-60	Introduction to Molecular and Cellular Biology	5
BIO-61	Introduction to Organismal and Population Biology	5
CHE-1A	General Chemistry I	5
CHE-1B	General Chemistry II	5
MAT-1A	Calculus I	4
Complete ONE Physics sequence as shown below:		
PHY-2A	General Physics I	4
AND		
PHY-2B	General Physics II	4
OR		
PHY-4A	Mechanics	4
AND		
PHY-4B	Electricity & 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
CHE 1A	5	CHE 1A	5
GUI 47	3	POL 1	3
Total Units	**16**	**Total Units**	**16**

TERM 2

COURSE	**UNITS**	**COURSE**	**UNITS**
PHI 32, 11 or ENG 1B	3 - 4	ENG 1B	4
CHE 1B	5	MAT 1B	4
GAM2, ARE 35 or 36	3	CHE 1B	5
COM 1, 6 or 9	3	COM 1, 6 or 9	3
POL 1	3		
Total Units	**17-18**	**Total Units**	**16**

TERM 3

COURSE	**UNITS**	**COURSE**	**UNITS**
BIO 60	5	BIO 60	5
PHY 2A	4	PHY 2A	4
PHI 22 or COM 12	3	GAM2, ARE 35 or 36	3
ECON 8 or ANT 1	3	PHI 22 or COM 12	3
Total Units	**15**	**Total Units**	**15**

TERM 4

COURSE	**UNITS**	**COURSE**	**UNITS**
BIO 61	5	BIO 61	5
PHY 2B	4	PHY 2B	4
HIS 6, 7, 14, 31 or 34	3	HIS 1 or 2	3
HUM 5 or 16	3	SOC 10	3
		HUM 5 or 16	3
Total Units	**15**	**Total Units**	**18**

✓ First Term To-Do List

- [ ] Submit official high school transcripts and AP/IB/CLEP exam scores
- [ ] Visit Engagement Center (ST 108)
- [ ] 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 IGETC certification

A **BIOLOGY** degree introduces the concepts and principles upon which biologic knowledge is based including the biochemistry, structure and function, ecology and evolution of organisms, from the levels of cells through the biosphere. Students will develop skills for critical/analytical thinking, perceptive reading/observation and interpretation. The A.S.-T in Biology degree provides students with a core curriculum that will prepare them with the knowledge and skills required to earn a baccalaureate degree in biology.

WHERE CAN I WORK?

- Biotechnology
- Center for Disease Control
- Conservation Agencies
- Food & Drug Administration
- Hospitals & Healthcare Facilities
- Medical Research
- National Institutes of Health
- Pharmaceutical Companies
- Wildlife Preserves & Parks
- Zoos & Aquariums

WHAT CAN I DO WITH THIS ASSOCIATE DEGREE?

Position Title	*CA Annual Openings*	*CA Median Salary*	*In Riverside County Wages will Support*
Forest & Conservation Tech	920	$47,320	1 adult
Chemical Technician	720	$47,170	1 adult
Clinical Laboratory Technician	1,000	$58,120	1 adult, 1 child
Medical Equipment Repairer	400	$55,080	1 adult, 1 child
Quality Control Analyst	1,120	$53,280	1 adult, 1 child
Teacher's Assistant	17,710	$35,380	1 adult

WHAT CAN I DO WITH MORE EDUCATION AND TRAINING?

Position Title	*CA Annual Openings*	*CA Median Salary*	*In Riverside County Wages will Support*
Biologist	11,800	$79,580	1 adult, 2 children
Biology Professor	530	$120,670	2 adults, 5children
Biomedical Engineer	380	$102,140	2 adults, 3 children
Cell & Molecular Biologists	780	$90,710	1 adult, 3 children
Dentist	840	$137,420	2 adults, 6 children
Geneticists	780	$90,710	1 adult, 3 children
Medical Doctor or DO	620	$201,950	2 adults, 6 children
Microbiologists	510	$111,160	2 adults, 4 children
Physician's Assistant	980	$124,780	2 adults, 5 children
Soil & Plant Scientists	330	$70,820	1 adult, 2 children
Veterinarian	430	$107,880	2 adults, 3 children
Zoologists & Wildlife Biologists	250	$71,580	1 adult, 2 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 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 National Science Foundation REU, UCR CNAS DNA Subway Sequence Internship, UCR's Future Physician Leader's Program, UCR CNAS Paid Summer Internship, UCLA's MEDPEP program, or Riverside Community Hospital Volunteer program.

⇒ Join an engineering **PROFESSIONAL ASSOCIATION** such as Association for the Advancement of Medical Instrumentation, Biomedical Engineering Society or IEEE Engineering in Medicine and Biology Society to network and maintain current knowledge of opportunities in the field.

WHAT SKILLS DO I NEED?

⇒ **Science** — use scientific rules and methods to solve problems.

⇒ **Active Listening** — give 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.

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

⇒ **Reading Comprehension** — understanding written sentences and paragraphs in work related documents.

⇒ **Speaking** — talking to others to convey information effectively.

PREFERRED WORK STYLES INCLUDE:

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

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

⇒ **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.

⇒ **Persistence** — persistence in the face of obstacles.

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.