

CONTROL #

Academic Affairs Division

AVP MEMO

R. Ray D. Somera, Ph.D.
Vice President

2013-02

MEMORANDUM

TO: Mary A. Y. Okada, Ed.D.
President

FROM: R. Ray D. Somera, Ph.D.
Vice President for Academic Affairs

SUBJECT: GCC Course Fees

DATE: February 12, 2013

Guam Community College
RECEIVED

FEB 14 2013

PRESIDENT'S OFFICE

Initials: big

The fee adjudication hearings conducted on campus to establish new course fees have just been completed. I am now recommending for BOT approval of these fees. Please transmit this memo to the Board via a Board Resolution.

The tables below indicate the proposed fee changes:

New Course Fees:

Course Number	Course Name	Proposed Fee
CJ126L	Officer Survival laboratory	\$150.00
SI130A	Human Anatomy and Physiology I	\$40.00
SI130B	Human Anatomy and Physiology II	\$40.00
SI103L	Introduction to Marine Biology Lab	\$40.00
SI101L	Introduction to Chemistry with Laboratory	\$40.00
SI102	General Chemistry with Laboratory	\$40.00
SI110L	Environmental Biology Laboratory	\$40.00
SI150L	Introduction to Microbiology	\$40.00
TH101	Introduction to the Theater	\$20.00

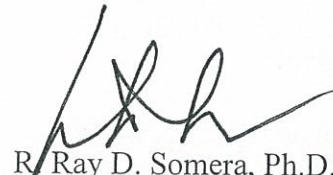
Increase in Existing Courses Fees:

Course Number	Course Name	Existing Fee	Proposed Fee
CJ135	Firearms Use/Safety/Care	\$146.00	\$200.00

Increase in Other Fees:

Course Number	Existing Fee	Proposed Fee
WorkKeys Assessment	\$56.00	\$65.00

The attached documents provide the justification for all these proposed fee increases.



Ray D. Somera, Ph.D.
Vice President for Academic Affairs





GUAM COMMUNITY COLLEGE

Kolebhoñ Kunitariddat Guåhan

MEMORANDUM

TO: R. Ray D. Somera, Ph.D.
Vice President for Academic Affairs

FROM: Reilly Ridgell, Dean, TPS 
Dr. Gina Tudela, Dean, TSS 

SUBJECT: Fee Adjudication Hearing- February 4 & 5, 2013

DATE: February 7, 2013

On February 4 & 5, 2013, a public hearing on fee adjustment was held in the GCC Student Center Training Room (5108). The purpose of the public hearing was to gather feedback regarding the establishment of new course fees for the following classes. These course fees are not currently listed in our College catalog.

- CS126L – Officer Survival Laboratory (\$150.00)
- SI130A – Human Anatomy and Physiology I (\$40.00)
- SI130B – Human Anatomy and Physiology II (\$40.00)
- SI103L – Introduction to Marine Biology Lab (\$40.00)
- SI101L – Introduction to Chemistry Laboratory (\$40.00)
- SI102 – General Chemistry with Laboratory (\$40.00)
- SI110L – Environmental Biology Laboratory (\$40.00)
- SI150L – Introduction to Microbiology (\$40.00)
- TH101- Introduction to the Theater (\$20.00)

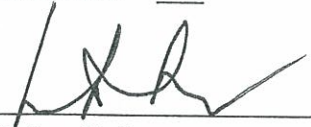
Additionally, the public hearing was held to gather feedback on proposed fee increases for CJ135 – Firearms Use/Safety/Care (from \$146.00 to \$250.00) and the WorkKeys Assessment Fee (from \$56.00 to \$65.00).

On the first day of the public hearing, two administrators and four faculty were present to respond to questions and concerns. Only one student stopped by to inquire about the proposed fee for TH101. His name is Thomas Tudela and he is a Liberal Arts major. He wanted to know what the purpose of the fee was. After the faculty responded to his question, he stated that had no objection to the fee. He can be reached at thomas.tudela@guamcc.edu, tmtudela@hotmail.com, or 632-6371.

On the second day of the hearing, two administrators and six faculty attended. No other testimony was received either for or against the proposed fees.

We respectfully request that the proposed fees be forwarded to the Board of Trustees for final approval.

Recommend Not Recommend




Dr. R. Ray D. Somera
Vice President for Academic Affairs

2/11/2013
Date

November 26, 2012

Memorandum

RECEIVED
NOV 26 2012

To: Reilly Ridgell, Dean TPS
From: Jose U. Munoz, DC CJSS 
Re: Lab Fee Increase for CJ 135, Firearms

The cost for firearms ammunition has risen dramatically over the last several years.

This rise in costs cannot be funded by the current lab fee for CJ 135, Firearms Use/Care/Safety.

My department is requesting an increase in the lab fee for CJ 135 of \$54.00.

This would increase the current lab fee from \$146.00 to \$200.00 per student enrolled.

Fee adjust CJ 126L.135

RECEIVED
NOV 26 2012

November 26, 2012

Memorandum

To: Reilly Ridgell, Dean TPS

From: Jose U. Munoz, DC CJSS 

Re: Initiation of Lab Fee for CJ 126, Officer Survival.

Firearms and other defensive supplies, pepper spray, are used in the instruction for CJ 126, Officer Survival.

The cost for firearms ammunition and these other supplies has risen dramatically over the last several years.

Presently CJ 126 has no lab fee connected to it.

My department would like to initiate a lab fee for CJ 126 in the amount of \$150.00 to offset the cost for ammunition and other supplies.

CJ135 Firearms Use/Safety/Care – offered Fall & Summer

Max Capacity: 30 students

Current Lab fee - \$146

2011 Ammunition Cost: .40 cal., 165 grain, FMJ - \$600/case of 1000 rds.

2012 Ammunition Cost : .40 cal., 165 grain, FMJ – \$640/case or 1000 rds./cs.

1 class needs atleast 15,000 rds.

Current Fee Revenue: \$4,380

Current cost: \$9,600

Proposed fee increase to \$200

Revenue at proposed fee: \$6,000

CJ126L Officer Survival Laboratory – offered Summer only

Max Capacity: 30 students

Current Lab fee – None

2011 Ammunition: .40 cal., 165 grain, FMJ - \$600/case of 1000 rds.

2012 Ammunition Cost: .40 cal., 165 grain, FMJ – \$640/case or 1000 rds./cs.

1 class needs atleast 5,000 rds.

Pepper Spray (OCAT) - \$10 - \$29 (vary in strength)

Police Batons (Expandables) - \$155 ea. (need 30)

Current Fee Revenue: None

Current cost: \$3,200 (ammo) + \$900 (pepper spray) + \$4,650 (batons) = \$7,940

Requested Fee: \$150

Revenue of new fee implementation: \$4,500

NOTE: CJ126 Officer Survival class has never been charged lab fees nor does the CJSS department have the capability to update all necessary supplies/equipment needed to run this course. The teachers have used out dated equipment in the storage from the past cycles that are no longer being used by current law enforcement agencies. Over the past 4 semesters (from SP11 to SU12), the CJSS department has had to borrow from other agencies most of the supplies and equipment if and when it was available for our use and in some cases instructors would purchase their own supplies. These are just a few of the concerns that have been brought up to the department by faculty.

Though the new fee structure will not be enough to cover all anticipated costs, it will help. The remaining cost will be covered by the Criminal Justice Department incentive funds.



Guam Community College

Kolehon Kumunida' Guåhå

Accredited by the
Western Association of
Schools and Colleges

December 24, 2012

Memorandum

To: Dr. Virginia Tudela, Dean, Technology and Student Services

From: Steve Lam, Math and Science Department Chairperson

Re: Justification for implementing laboratory fees for SI130A and SI130B

Dear Dr. Tudela:

Here I provide justification for implementing laboratory fees for the Anatomy and Physiology courses, SI130A and SI130B. To offer high quality, effective teaching, the Science Department proposes implementing a lab fee of \$40 for each course.

These courses offer hands-on lab activities that reinforce and complement lecture material. Currently, due to financial constraints, the college does not provide any budget to pay for the consumable materials and equipment for these courses. Other institutions offer similar courses and charge lab fees to cover expenses for consumables and equipment. Supplies and teaching tools needed for these courses usually include, but are not limited to, the following:

- \$600-750 -15 dissection cats at \$40-50 each (price fluctuations) per semester
- \$100 - Miscellaneous Supplies (scalpel blades, gloves, chemicals - acids, bases, indicator, lens paper, microscope slides, cover slips, toothpicks)
- \$500 - Prepared Tissue slides - slides vary in price from \$4.50 - \$7

As additional justification, attached are schedules with course descriptions and lab fees from three institutions: UOG Course Schedule, North Seattle Community College – Winter 2013 Class Schedule, and Community College of Philadelphia Biology Courses.

Respectively,

Steve
Digitally signed by Steve S. Lam
DN: cn=Steve S. Lam, o=Guam Community College, ou=Math
& Science Dept, email=steve.lam@guamcc.edu, c=GU
Date: 2012.12.24 17:21:39 +10'00'

November 30, 2012

Memorandum

To: Dr. Virginia Tudela, Dean, Technology and Student Services

From: Steve Lam, Math and Science Department Chairperson

Re: Lab Fee Proposal

Dear Dr. Tudela:

After discussions with science faculty of the department, I do want to propose a course Lab Fee of \$40 per semester for the following courses:

SI103L - Introduction to Marine Biology, Environmental Biology,
SI101L- Introductory Chemistry,
SI102L - General Chemistry, and
SI110L – Environmental Biology
SI150 - Microbiology with Lab

This Lab Fee of **\$40 per semester** is based on the following and potential price increases:

- \$10.50 Underwater World
- \$10.00 Jungle Riverboat Cruise
- \$13.00-17.00 Dolphin Watch - this range is provided because of price differences between operators.
- \$70.00 per semester for miscellaneous supplies (fish for dissection, iodine solution, food coloring, salt, M & Ms, spoons, plates) and establishing a fund for replacement/maintenance of field equipment.
- Replacement and maintenance of Lab equipment and peripherals.
- Costs for consumables lab items such as chemicals, filters for the water filtration system, film and lens for microscopes, and other instrumentation and equipment.

Thanks for your consideration.

Respectively,

Steve Lam



SI 150: Introduction to Microbiology: Class Size 20 students


Equipment and Materials:	Price:
1. Petri dishes	\$120
2. Glass Slides and cover slips	\$25
3. Microscope Lab	\$15
4. DNA BioGLO Lab	\$120
5. GEL Electrophoresis Lab	\$100
6. PCR Lab	\$110
7. Agarose	\$100
8. Culture Media	\$175
9. Glass bending Lab	\$15
10. Antibiotic sensitivity lab	\$25
11. Fermentation Lab	\$20
12. Aseptic Techniques Lab	<u>\$15</u>
	\$835



Continuing Education & Workforce Development
(671) 735-5574

received
12-3-12 AB

MEMORANDUM

To: Dr. Ray Somera 
Vice President, Academic Affairs

From: Victor Rodgers 
Assistant Director, Continuing Education & Workforce Development

Date: December 3, 2012

Re: Increase in fees for WorkKeys Assessment

This memo requests an increase to the fee for the WorkKeys Assessment.

The current fee for the WorkKeys Assessment is \$56.00 for the basic foundational skills assessment, which encompasses Reading for Information, Locating Information and Applied Mathematics, and we would like to propose a fee increase to \$65.00.

The current price of \$56.00 per assessment absorbs the following costs:

- The annual KeyTrain License of \$25,000.00
- The annual WorkKeys License fee of \$5,450.00
- \$18.00 per basic foundational skills assessment (\$6.00 per content area)
- \$2.75 per National Career Readiness Certificate registration
- \$3.50 per National Career Readiness Certificate print fee
- \$120 annually for FedEx service

It currently costs GCC \$24.25 for each assessment. The remaining \$31.75 has been allocated to cover the remaining annual fees. Due to the increased financial constraints of the Government of Guam, the administrative costs of providing WorkKeys Assessment for the island of Guam are being shifted to the CE & WD Department. In order for our department to support the WorkKeys Program and the costs for the administration of the program, an increase in fees is necessary. The additional \$9.00 increase will allow us to maintain affordable pricing for essential skill certifications for our community, while supporting the administrative infrastructure required.

DATE: November 30, 2012

TO: Dr. Virginia C. Tudela, Dean
School of Technology and Student Services

FROM: Dr. Lisa Baza-Cruz, Department Chairperson
English Department

SUBJECT: Request for Implementation in Lab Fees for English Course
TH101: Introduction to the Theater

Baza-Cruz

The English Department has and continues to recognize the College's financial situation. However, as new course offerings are implemented, it is then that departments recognize the need to request additional funding to best meet the course description and design. TH101: Introduction to the Theater is a new English course, implemented in Fall 2011, and serves as an fine arts elective for the general education curriculum and Liberal Studies program. Support for this funding request is listed below based on Fall 2011 (to include total number of overrides for closed courses), Spring 2012, Fall 2012, and anticipated Spring 2013 enrollment data.

Fall 2011	Course # and Title	Section(s)	Students Served
TH101	Introduction to the Theater	1	20
	TOTAL:	1	20.
Spring 2012	Course # and Title	Section(s)	Students Served
TH101	Introduction to the Theater	1	20
		Student Overrides	6
	TOTAL:	1	26
Fall 2012	Course # and Title	Section(s)	Students Served
TH101	Introduction to the Theater	1	20
	TOTAL:	1	20
Spring 2013	Course # and Title	Section(s)	Students Served
TH101	Introduction to the Theater	1	20
		Anticipate Opening a 2 nd Section	20
	TOTAL:	2	40
Total # of Courses		5	106

Data demonstrates a gradual increase in sections being offered as students become aware of this new course and enroll as part of their degree programs. It should be noted that TH101 articulates to UOG as a general education course, as well as supports the new program to program articulation between GCC's Liberal Studies Program and UOG's Interdisciplinary Arts and Sciences. As DC, I anticipate enrollment into this course to continue to increase. I continue to work with faculty to identify the essential classroom needs for our students and the supplies and materials that are crucial to TH101. It is through these discussions with theater faculty that we have identified a need to request a lab fee for this course. For the past three semesters, small plays or productions have been performed by the students at the end of each semester. These productions are not required, but students have chosen to develop production practices and perform for small audiences. However, they have found that the purchasing of materials for simple props is costly. Currently, there is no lab fee attached to this course. If this request is

approved, lab fees would be used to purchase the needed supplies and materials for this course and its specific needs.

As Department Chairperson, I would like to request that a lab fee of \$20 per student be implemented for TH101: Introduction to the Theater as soon as possible.

Thank you.

MEMORANDUM

TO: Mary A.Y. Okada, Ed.D., President

VIA: R. Ray D. Somera, Ph.D., *RRD*
Vice President for Academic Affairs

VIA: Carmen Kwek Santos *CKS*
Vice President for Finance and Administration

FROM: Gina Tudela, Ph.D., Dean, TSS *GT*
Reilly Ridgell, Dean, TPS *RR*

SUBJECT: Request for Fee Adjudication

DATE: January 7, 2013

Guam Community College
RECEIVED

JAN 18 2013

PRESIDENT'S OFFICE
Initials: *RR*

We would like to request fee adjudication for the following. Supporting documents are attached.

New Course Fees:

Course Number	Course Name	Proposed Fee
CJ126L	Officer Survival Laboratory	\$150.00
SI130A	Human Anatomy and Physiology I	\$40.00
SI130B	Human Anatomy and Physiology II	\$40.00
SI103L	Introduction to Marine Biology Lab	\$40.00
SI101L	Introduction to Chemistry Laboratory	\$40.00
SI102	General Chemistry with Laboratory	\$40.00
SI110L	Environmental Biology Laboratory	\$40.00
SI150L	Introduction to Microbiology	\$40.00
TH101	Introduction to the Theater	\$20.00

Increase in Existing Courses Fees:

Course Number	Course Name	Existing Fee	Proposed Fee
CJ135	Firearms Use/Safety/Care	\$146.00	\$200.00

Increase in Other Fees:

Type of Fee	Existing Fee	Proposed Fee
WorkKeys Assessment	\$56.00	\$65.00

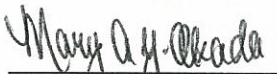
Attached are supporting documents for the above as well as a list of current course fees provided by the Registrar.

Recommend () Do not recommend



R. Ray Somera, Ph.D., Vice President for Academic Affairs

Approved () Disapproved

 01.18.2013

Mary V. Okada, Ed.D., President

November 30, 2012

Memorandum

To: Dr. Virginia Tudela, Dean, Technology and Student Services

From: Joni Kerr, Assistant Professor, Science Department

Re: Justification for implementing laboratory fees for SI103L Introduction to Marine Biology Lab, SI110L Environmental Biology Lab, SI100L Introductory Chemistry Lab and SI102L General Chemistry Lab
SI101L

Dear Dr. Tudela:

Here I provide justification for implementing laboratory fees for biology courses that GCC has offered for many years, as well as new chemistry courses that have been approved by the College.

Introduction to Marine Biology, Environmental Biology, Introductory Chemistry and General Chemistry are 3-credit science courses with 1 credit co-requisite laboratory components. Requirements to pass the labs include conducting hands-on laboratory exercises that reinforce lecture material, and participating in field trips (SI103L and SI110L).

Usually, for SI103L and SI110L, equipment and consumables are purchased when funds are available to the department, or, instructors purchase supplies and submit receipts for reimbursement if funds are available. Additionally, students are offered a variety of experiences that include trips that require fees, such as Jungle Riverboat Cruise, Underwater World and boat charters to observe dolphins, sea turtles, and nearshore reef habitats. Students now pay \$10 each for Jungle Riverboat Cruise and Underwater World, while the boat charters cost \$14-\$17 per student, depending on the company. For the latter, instructors pay the charter company a deposit, and are reimbursed when students pay the fee.

As for the new chemistry courses, just to set up equipment and chemicals for SI100L will cost an estimated \$15,000. Furthermore, most chemicals can only be sourced off-island and hazardous shipping charges add to the cost of these supplies.

Other foreseeable costs for these labs include maintenance of equipment, such as the water filtering system (\$411), microscopes, balances and disposal of chemical waste.

Currently, no fees are assessed for these courses at GCC. Other institutions with similar courses, including the University of Guam, have lab fees that pay for equipment, maintenance of equipment, supplies and field trips.

Below are institutions that apply lab and/or course fees:

- UOG – assesses a lab fee of \$42 for each science lab course. (See attachments)
- Southern Maine Community College – assesses a Course Fee of \$8.60 per credit hour and Lab/Tech Fee of \$17.20 per credit hour. (See attachments)

(Source: SMCC College Catalog 2012-2013

URL address: <http://www.smccme.edu/academics-a-registration/departments-a-programs/college-catalog.html>

<u>Course Description</u>	<u>Fee</u>	<u>Student Fees</u>	<u>Fee</u>
Automotive courses	37		
Auto Body Repair courses	59	Registration	22
AE150	59	Student ID	7
ASL 100,110,120,130 Am Sign Lang I,II,III,IV	27	Library	15
CD110 Early Childhood Orientation	27	Student Activity	15
CD180 Physical & Language Development	67	Health	15
CD240 Cognitive and Creative Development	67	Parking	15
CD260 Social and Emotional Development	67	Technology	73
CJ135 Firearms Use/Safety/Care	146		162
CM Cosmetology Lab (per credit hr)	146		
CS courses (except CS152)	22		
CS152 Macintosh Application	37		
ED180 Teaching Methods	67		
EE courses (per course)	51		
EM 111 Electrical Wiring (Residential)	51		
EM 113, EM114, EM115	51		
EN 100 B/R/W Fundamentals of English	15		
HL 130 First Aid & Safety	66		
HL 131 BLS for Healthcare Providers	66		
HL 140 Introduction to Clinical Lab	176		
HS 206 Beverage Management	110		
HS 245 Food Production Principles	220		
MS 141 Medical Assisting	176		
NU 101 Nursing Assistant	66		
NU 110 Nursing Foundations	439		
OA 101,103,109,130,210,211,220,230,240,250	22		
SP 051 Driver 's Education (Behind-the-Wheel)	124		
VC 102, 103	59		
VC 125,126,131,135,161,165,167,172	73		
VC 171,182	37		
All WE courses (except WE 102, 220, 228)	66		
G.E.D. Retest (per subject)	10		
Appraisal Test (A.H.S., E.S.L., A.B.E.)	37		

INTERSESSION SCHEDULE

COLLEGE OF NATURAL AND APPLIED SCIENCES

AGRICULTURE

031633	AG-101-01	INTRO TO AGRICULTURE	09:00-09:50	ALS 127	4.00	CRUZ J	\$24.00
	AG-101L-01	INTRO TO AGRICULTURE LAB	10:00-12:50	ALS 124			
031824	AG-102-01	INTRODUCTION TO PLANT SCIENCE	TBA	INT INTERNET	4.00	MCCONNELL J	\$24.00
	AG-102L-01	INTRODUCTION TO PLANT SCIENCE LAB	TBA	INT INTERNET			
031569	AG-109-01	THE INSECT WORLD	17:30-18:50	ALS 124	4.00	MOORE A	\$24.00
	AG-109L-01	THE INSECT WORLD LAB	09:00-11:50	ALS 124			
031586	AG-136-01	SCIENCE OF AQUACULTURE	12:30-13:50	ALS 127	4.00	GONG H	\$24.00
	AG-136L-01	SCIENCE OF AQUACULTURE LAB	12:00-14:50	ALS 124			
031567	AG-281-01	PRIN OF HORTICULTURAL SCIENCE	09:30-10:50	ALS 125B	4.00	MARUTANI M	\$24.00
	AG-281L-01	PRIN OF HORTICULTURAL SCIENCE LAB	12:30-15:20	ALS 124			
031518	AG-342-01	PRIN OF AGRICULTURAL ENGINEER	09:00-10:20	ALS 125A	4.00	SINGH P	\$24.00
	AG-342L-01	PRIN OF AGRICULTURAL ENGINEER LAB	15:00-17:50	ALS 124			
031565	AG-392-01	LAB TEACHING ASSISTANTSHIP	TBA	TBA	1.00	MARUTANI M	\$24.00
031841	AG-443-01	ENGINEERING TECH FOR SUST AGR	09:00-10:20	ALS 125A	4.00	SINGH P	\$24.00
	AG-443L-01	ENGINEERING TECH FOR SUST AGR LAB	15:00-17:50	ALS 124			
031680	AG-481-01	ENVIRONMENTAL SOIL SCIENCE	09:30-10:50	ALS 125B	4.00	GOLABI M	\$24.00
	AG-481L-01	ENVIRONMENTAL SOIL SCIENCE LAB	13:00-16:00	TBA			
031512	AG-486-01	ORNAMENTAL CROP PROD IN TROPIC	TBA	TBA	4.00	MCCONNELL J	\$24.00
	AG-486L-01	ORNAMENTAL CROP PROD IN TROPIC LAB	TBA	TBA			
031835	AG-491-01	SEMINAR	12:00-12:50	TBA	1.00	GOLABI M	
031563	AG-492-01	PRACTICUM	TBA	TBA	3.00	BARBER L	
031529	AG-498-01	INTERNSHIP	TBA	TBA	1.00	STAFF	
031557	AG-498-02	INTERNSHIP	TBA	TBA	2.00	STAFF	
031562	AG-498-03	INTERNSHIP	TBA	TBA	3.00	STAFF	

BIOLOGY

031730	BI-100-01	ENVIRONMENTAL BIOLOGY	14:00-15:20	SC 101	3.00	LINDSTROM D	\$42.00
	BI-100-02	ENVIRONMENTAL BIOLOGY	14:00-15:20	SC 101	3.00	LOFDAHL K	\$42.00
031731	BI-100-01	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	STAFF	\$42.00
031732	BI-100L-01	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	LINDSTROM D	\$42.00
031733	BI-100L-02	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	FIEDLER G	\$42.00
031734	BI-100L-03	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	LOFDAHL K	\$42.00
031735	BI-100L-04	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	STAFF	\$42.00
031736	BI-100L-05	ENVIRONMENTAL BIOL LAB	08:00-10:50	TBA	1.00	STAFF	\$42.00
031737	BI-103-01	MARINE BIOLOGY	11:00-12:20	ML 205	3.00	BIGGS J	\$42.00
031738	BI-103L-01	MARINE BIOLOGY LAB	13:00-15:50	ML 205	1.00	BIGGS J	\$42.00
031739	BI-125-01	HUMAN ANATOMY & PHYSIOLOGY II	11:00-12:20	SC 101	3.00	FIEDLER G	\$42.00
031742	BI-125-02	HUMAN ANATOMY & PHYSIOLOGY II	12:30-13:50	SC 101	3.00	FIEDLER G	\$42.00
031743	BI-125L-01	HUMAN ANATOMY & PHYSIO II LAB	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031744	BI-125L-02	HUMAN ANATOMY & PHYSIO II LAB	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031745	BI-125L-03	HUMAN ANATOMY & PHYSIO II LAB	08:00-10:50	SC 112	1.00	ROTH M	\$42.00
031746	BI-125L-04	HUMAN ANATOMY & PHYSIO II LAB	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031747	BI-125L-05	HUMAN ANATOMY & PHYSIO II LAB	14:00-16:50	SC 112	1.00	RIGHETTI T	\$42.00
031748	BI-157-01	PRINCIPLES OF BIOLOGY I	09:00-09:50	SC 101	3.00	MOOTS K	\$42.00
031749	BI-157L-01	PRINCIPLES OF BIOLOGY I LAB	14:00-16:50	SC 110	1.00	RIGHETTI T	\$42.00
031750	BI-157L-02	PRINCIPLES OF BIOLOGY I LAB	08:00-10:50	SC 110	1.00	RIGHETTI T	\$42.00
031751	BI-157L-03	PRINCIPLES OF BIOLOGY I LAB	08:00-10:50	SC 110	1.00	RIGHETTI T	\$42.00
031752	BI-201-01	NATURAL HISTORY OF GUAM	10:00-10:50	SC 101	3.00	CAMACHO F	\$42.00
031753	BI-303-01	ANIMAL DIVERSITY	10:00-10:50	SC 101	3.00	MOOTS K	\$42.00
031754	BI-303L-01	ANIMAL DIVERSITY LABORATORY	08:00-10:50	SC 112	1.00	MOOTS K	\$42.00
031755	BI-310-01	EVOLUTION	17:00-18:20	SC 110	3.00	LOFDAHL K	\$42.00
031756	BI-321-01	SCIENTIFIC AGUMENTS	11:00-12:20	SC 110	2.00	STAFF	\$42.00
031757	BI-392-01	LAB TEACHING & ASSISTING	TBA	TBA	1.00	LOFDAHL K	\$42.00
031758	BI-392-02	LAB TEACHING & ASSISTING	TBA	TBA	1.00	LOFDAHL K	\$42.00
031759	BI-412-01	BIOMETRICS	11:00-12:20	SC 110	3.00	CAMACHO F	\$42.00
031760	BI-412L-01	BIOMETRICS LABORATORY	14:00-16:50	SC 110	1.00	CAMACHO F	\$42.00
031761	BI-419-01	BIOCHEMISTRY	11:00-12:20	SC 101	3.00	GHOSH S	\$42.00
031763	BI-419L-01	BIOCHEMISTRY LAB	14:00-16:50	SC 103	1.00	GHOSH S	\$42.00
031765	BI-425-01	MOLECULAR BIOLOGY	11:00-12:20	SC 120	3.00	GHOSH S	\$42.00
031767	BI-425L-01	MOLECULAR BIOLOGY LABORATORY	14:00-16:50	SC 103	2.00	GHOSH S	\$42.00

COLLEGE OF NATURAL AND APPLIED SCIENCES

CHEMISTRY

031714	CH-100-01	INTRO TO INORGANIC CHEMISTRY	MWF	09:00-09:50	SC 221	3.00	BALAKRISHNAN N	
031715	CH-100-02	INTRO TO INORGANIC CHEMISTRY	TTH	09:30-10:50	SC 101	3.00	BALAKRISHNAN N	
031716	CH-100L-01	INTRO CHEMISTRY LAB	M	11:00-13:50	SC 230	1.00	BALAKRISHNAN N	\$42.00
031717	CH-100L-02	INTRO CHEMISTRY LAB	W	11:00-13:50	SC 230	1.00	BALAKRISHNAN N	\$42.00
031718	CH-101-01	INTRO TO ORGANIC CHEMISTRY	MW	12:30-13:50	SC 101	3.00	VUKI M	
031719	CH-101L-01	INTRO TO ORGANIC CHEMISTRY LAB	M	14:00-16:50	SC 221	1.00	VUKI M	\$42.00
031720	CH-103-01	GENERAL CHEMISTRY	MWF	10:00-10:50	SC 221	3.00	BALAKRISHNAN N	
031577	CH-103-02	GENERAL CHEMISTRY	TTH	12:30-13:50	SC 221	3.00	VUKI M	
031721	CH-103L-01	GEN CHEMISTRY II LAB	F	11:00-13:50	SC 221	1.00	BALAKRISHNAN N	\$42.00
031722	CH-103L-02	GEN CHEMISTRY II LAB	W	14:00-16:50	SC 221	1.00	VUKI M	\$42.00
031723	CH-103L-03	GEN CHEMISTRY II LAB	TH	08:00-10:50	SC 112	1.00	VUKI M	\$42.00
031724	CH-310B-01	ORGANIC CHEMISTRY	MW	11:00-12:20	SC 221	3.00	SULEMAN N	\$42.00
031725	CH-312-01	LABORATORY TECH IN ORGANIC CH LAB	TTH	14:00-16:50	SC 221	2.00	SULEMAN N	\$42.00
031726	CH-392-01	LAB TEACHING & ASSISTING	M	11:00-13:50	SC 230	1.00	BALAKRISHNAN N	\$42.00
031727	CH-450B-01	PHYSICAL CHEMISTRY	TBA	TBA	TBA	4.00	STAFF	
031728	CH-451-01	PHYSICAL CHEMISTRY I LAB	TBA	TBA	TBA	2.00	STAFF	\$42.00
031729	CH-491-01	SEMINAR	TBA	TBA	TBA	1.00	STAFF	

COMPUTER SCIENCE

031511	CS-200-01	COMPUTER APPLICATIONS	MW	09:30-10:50	WB 2	3.00	ZOU Y	\$30.00
031513	CS-200-02	COMPUTER APPLICATIONS	MW	11:00-12:20	WB 2	3.00	ZOU Y	\$30.00
031514	CS-201-01	INTRODUCTION TO PROGRAMMING	MW	16:00-17:50	WB 2	4.00	SWANSON JR C	\$30.00
031516	CS-303-01	DATA STR & ALGORITHM ANALYSIS	TTH	11:00-12:20	WB 2	3.00	LEE F	\$30.00
031517	CS-315-01	INTRO FILE PROC & DATABASE MA	TTH	09:30-10:50	WB 2	3.00	LEE F	\$30.00
031519	CS-365-01	COMPUTER ARCHITECTURE	TTH	16:00-17:20	WB 2	3.00	SWANSON JR C	\$30.00
031520	CS-380-01	ORG OF PROGRAMMING LANGUAGES	TTH	14:00-15:20	TBA	3.00	SWANSON JR C	\$30.00
031521	CS-403-01	DATA CO AND NETWORKING	TTH	14:00-15:20	WB 2	3.00	ZOU Y	\$30.00
031524	CS-410-01	COMPILER DESIGN & CONSTRUCTION	MW	14:00-15:20	WB 2	3.00	LEE F	\$30.00
031525	CS-492-01	PRACTICUM IN COMPUTER SCIENCE	F	14:00-16:50	WB 2	1.00	ZOU Y	\$30.00

CONSUMER & FAMILY SCIENCE

031677	CF-120-01	CLOTHING CONSTRUCTION	T	14:00-16:50	ALS 125A	3.00	MOGUEL M	
031587	CF-230-01	NUTRITION AND HEALTH	TTH	15:30-16:50	ALS 127	3.00	DIAMBRA ODI H	
031588	CF-230-02	NUTRITION AND HEALTH	TTH	17:00-18:20	ALS 127	3.00	DIAMBRA ODI H	
031594	CF-231-01	HUMAN NUTRITION FOR HEALTH PRO	MW	15:30-16:50	ALS 125A	3.00	TAM Y	
031599	CF-309-01	PREVENTION PROGRAMM FOR YOUTH	MW	17:30-18:50	ALS 125A	3.00	IYECHAD T	
031679	CF-315-01	INTERIOR DESIGN	TTH	12:30-13:50	ALS 125B	3.00	MOGUEL M	
031589	CF-339-01	COMMUNITY NUTRITION	TTH	09:30-10:50	ALS 127	3.00	LEONGUERRERO R	
031595	CF-342-01	FOOD SAFETY AND SANITATION	MW	12:30-13:50	ALS 125B	3.00	YANG J	
031598	CF-450-01	FAMILY RESOURCES	MW	14:00-16:00	ALS 125B	3.00	BARCINAS P	

ENGINEERING SCIENCE

031508	ES-101-01	ENGINEERING GRAPHICS	TTH	11:00-12:20	ALS 127	3.00	MORADI M	
031510	ES-202-01	ENGINEERING DYNAMICS	MW	11:00-12:20	ALS 127	3.00	ROUSE J	
031509	ES-203-01	MECHANICS OF MATERIALS	TTH	12:30-13:50	ALS 127	3.00	MORADI M	

MATHEMATICS

031774	MA-085-01	FUND OF MATH I II (NDU)	MW	08:00-09:20	WB 1	3.00	DATUIN T	
031775	MA-085-02	FUND OF MATH I II (NDU)	MW	09:30-10:50	SC 121	3.00	CUMMINGS L	\$30.00
031776	MA-085-03	FUND OF MATH I II (NDU)	MW	11:00-12:20	WB 1	3.00	DATUIN T	\$30.00
031777	MA-085-04	FUND OF MATH I II (NDU)	TTH	14:00-15:20	SC 121	3.00	MORADI M	\$30.00
031778	MA-085-05	FUND OF MATH I II (NDU)	MW	16:00-17:20	SC 101	3.00	DE BEER M	\$30.00
031780	MA-085-06	FUND OF MATH I II (NDU)	MW	17:30-18:50	SC 101	3.00	ZOU Y	\$30.00
031781	MA-085-07	FUND OF MATH I II (NDU)	TTH	08:00-09:20	WB 1	3.00	SZEKELY Z	\$30.00
031782	MA-085-08	FUND OF MATH I II (NDU)	TTH	09:30-10:50	SC 121	3.00	CUMMINGS L	\$30.00
031783	MA-085-09	FUND OF MATH I II (NDU)	TTH	11:00-12:20	WB 1	3.00	SINGH P	\$30.00
031784	MA-085-10	FUND OF MATH I II (NDU)	TTH	16:00-17:20	SC 101	3.00	DE BEER M	\$30.00
031785	MA-085-11	FUND OF MATH I II (NDU)	TTH	17:30-18:50	SC 101	3.00	ZOU Y	\$30.00
031786	MA-110-01	FINITE MATHEMATICS	MW	09:30-10:50	WB 1	3.00	CHONG M	
031787	MA-110-02	FINITE MATHEMATICS	MW	14:00-15:20	SC 305	3.00	DE BEER M	
031788	MA-110-03	FINITE MATHEMATICS	TTH	09:30-10:50	WB 1	3.00	CHONG M	
031789	MA-110-04	FINITE MATHEMATICS	TTH	14:00-15:20	WB 1	3.00	TAKENOUCI Y	
031790	MA-110-05	FINITE MATHEMATICS	TTH	14:00-15:20	SC 305	3.00	DE BEER M	
031793	MA-110-06	FINITE MATHEMATICS	MW	16:00-17:20	SC 121	3.00	BLAS F	
031794	MA-110-07	FINITE MATHEMATICS	MW	17:30-18:50	SC 120	3.00	BLAS F	
031791	MA-115-01	INTRODUCTORY COLLEGE ALGEBRA	MW	15:30-16:50	WB 1	3.00	AGUON A	
031792	MA-115-02	INTRODUCTORY COLLEGE ALGEBRA	TTH	15:30-16:50	WB 1	3.00	AGUON A	
031796	MA-151-01	INTRODUCTORY STATISTICS	MW	08:00-09:20	SC 121	3.00	AGUON A	
031797	MA-151-02	INTRODUCTORY STATISTICS	MW	17:30-18:50	SC 121	3.00	REKDAHL K	
031798	MA-151-03	INTRODUCTORY STATISTICS	TTH	08:00-09:20	TBA	3.00	AGUON A	
031530	MA-161A-01	COLLEGE ALGEBRA AND TRIG	MW	11:00-12:20	SC 121	3.00	SUN S	
031531	MA-161A-02	COLLEGE ALGEBRA AND TRIG	MW	14:00-15:20	SC 121	3.00	SUN S	
031532	MA-161B-01	COLLEGE ALGEBRA & TRIG	TTH	14:00-15:20	TBA	3.00	SUN S	
031533	MA-165-01	PRECALCULUS	MTWTH	09:30-10:45	WB 3	5.00	NAGAHASHI H	
031534	MA-165-02	PRECALCULUS	MTWTH	11:00-12:15	SC 305	5.00	DE BEER M	
031535	MA-203-01	CALCULUS I	MTWTH	11:00-12:15	TBA	5.00	TAKENOUCI Y	
031536	MA-203-02	CALCULUS I	MTWTH	12:30-13:45	SC 305	5.00	SZEKELY Z	
031537	MA-204-01	CALCULUS II	MTWTH	11:00-12:15	WB 3	5.00	NAGAHASHI H	
031538	MA-302-01	FOUNDATIONS OF HIGHER MATH	MW	14:00-15:20	WB 3	3.00	NAGAHASHI H	
031539	MA-351-01	DISCRETE STRUCTURES	TTH	14:00-15:20	TBA	3.00	SZEKELY Z	
031541	MA-375-01	NUMERICAL METHODS & SOFTWARE	TTH	12:30-13:50	WB 2	3.00	SUN S	
031542	MA-385-01	APPLIED STATISTICS	MW	11:00-12:20	TBA	3.00	BADOWSKI G	
031543	MA-387-01	STATISTICS FOR SCIENCES	MTH	12:30-13:50	WB 3	4.00	BADOWSKI G	
		STATISTICS FOR SCIENCES	W	12:30-13:20	WB 3			

Attachment – Anatomy and Physiology Lab Fees Charged by other institutions for courses similar to SI130A and SI130B.

1. UOG Human Anatomy and Physiology Course Descriptions

Source URL:

<http://www.uog.edu/dynamicdata/CNASCourseDescriptions.aspx?siteid=2&p=20>

UOG requires that nursing students take a year of anatomy and physiology lecture with a concurrent lab. Below are the course descriptions with the labs highlighted. (Lab Fee is \$42 according to UOG Spring Schedule).

BI124 (3) HUMAN ANATOMY AND PHYSIOLOGY I F This is the first part of a two-semester course in the study of the structure and functions of the systems of the human body. In this part, the structure and functions of tissues are examined, as well as the anatomy and physiology of the integumentary, skeletal, muscular, and portions of the nervous systems. The course consists of three hours of lecture weekly. The lab, BI124L, MUST be taken concurrently. Prerequisite/Corequisite: EN110 Corequisite: BI124L

BI124L (1) HUMAN ANATOMY AND PHYSIOLOGY I LABORATORY F
BI124L is the laboratory portion of BI124 and MUST be taken concurrently. The course consists of one three-hour laboratory period per week. Corequisite: BI124

BI125 (3) HUMAN ANATOMY AND PHYSIOLOGY II SP This is the second part of a two-semester course in the study of the structure and functions of the systems of the human body. In this part, aspects of the nervous, circulatory, immune, digestive, reproductive, and excretory systems are investigated. The course consists of three hours of lecture weekly. The lab, BI125L, MUST be taken concurrently. Prerequisite: BI124-124L Corequisite: BI125L

BI125L (1) HUMAN ANATOMY AND PHYSIOLOGY II LABORATORY SP
BI125L is the laboratory portion of BI125 and MUST be taken concurrently. The course consists of one three-hour laboratory period per week. Corequisite: BI125

2. Community College of Philadelphia

Source URL:

http://www.ccp.edu/site/academic/catalog/courses/biology_courses.php

CCP offers 2 semesters of A & P (BIOL 109-110) with lab fees of \$150

BIOL 109-110 Anatomy and Physiology I & II

3-2-4 Human physiology and biochemistry are studied systematically in lectures while anatomy is stressed in laboratory experiences requiring extensive dissection. This two semester sequence follows the recommendations of the Human Anatomy and Physiology Society. BIOL 109 is designed for students who have had high school biology and chemistry within 10 years or who have passed BIOL 106. BIOL 109 is a prerequisite for BIOL 110. *Additional course fee (BIOL 109 and BIOL 110): \$150.**

*Effective Fall 2011.

3. North Seattle Community College

Below are descriptions for Human A & P (Biol& 241) parts 1 and 2. Both courses are assessed an additional lab fee of \$46.

Source URL:

<https://northseattle.edu/schedule/B233/search/749872%3F22853>

Human A & P 1

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

- CCN

Common Course Number

This class is part of the **Common Course Numbering** system, which indicates that it's essentially equivalent at all Community Colleges in Washington. If this class is part of a series, it is strongly recommended that you complete the entire series at North Seattle Community College.

- NW-L

Natural World-Lab S

This class fulfills the Natural World Lab Science requirement for some transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- NW

Natural World

This class fulfills the Natural World requirement for AA and AS transfer degrees. Read the description of the degree you are pursuing, check 4-Yr

college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- NW-AB

Natural World -AB

This class fulfills the Natural World requirement for AB DTA/MRP degree. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- \$FN

Science Lab Fee (FN)

\$46.00

Covers costs associated with maintenance of equipment and supplies for science laboratories.

Fee is charged per course.

Human A & P 2

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

- CCN

Common Course Number

This class is part of the **Common Course Numbering** system, which indicates that it's essentially equivalent at all Community Colleges in Washington. If this class is part of a series, it is strongly recommended that you complete the entire series at North Seattle Community College.

- NW-L

Natural World-Lab S

This class fulfills the Natural World Lab Science requirement for some transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- NW

Natural World

This class fulfills the Natural World requirement for AA and AS transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- NW-AB

Natural World -AB

This class fulfills the Natural World requirement for AB DTA/MRP degree. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

- \$FN

Science Lab Fee (FN)

\$46.00

Covers costs associated with maintenance of equipment and supplies for science laboratories.

Fee is charged per course.



Winter 2013 Class Schedule

Search Results

There are 26 classes matching your search.

2011 Survey of Biology

BIOL&100.01 5 AS1622 TWTh 8:00A-9:50A Sheridan, C 15 seats left
 Additionally, meets AS1622 F 9:00A-9:50A

Intro to biological principles and concepts; cell biology; application of biological knowledge to problems of society; and development of an awareness of science with an emphasis on human health and disease. Lab included. For biotechnology and non-science majors. Transfer class.

CCN NW-L NW NW-AB \$FN

2013 General Biology W/Lab

BIOL&160.01 5 AS1614 T 8:00A-9:50A Murkowski, A Only 1 seat left
 Additionally, meets AS1617 WF 8:00A-9:50A
 Additionally, meets AS1617 Th 9:00A-9:50A

Basic biological concepts with emphasis on general cell processes, plant and animal diversity, morphology, limited reproduction, phylogeny of the living organisms, exploration of molecular genetics. Lab fee. Transfer class.

CCN NW-L NW NW-AB \$FN

2021 General Biology W/Lab

BIOL&160.H3 5 AS1617 WF 10:00A-11:50A Murkowski, A Only 1 seat left

Basic biological concepts with emphasis on general cell processes, plant and animal diversity, morphology, limited reproduction, phylogeny of the living organisms, exploration of molecular genetics. Lab fee. Transfer class.

CCN eL/OC NW-L NW NW-AB \$FN

2029 General Biology W/Lab

BIOL&160.H5 5 AS1614 T 12:00P-1:50P Goulet, E 9 seats left
 Additionally, meets AS1617 WF 12:00P-1:50P

Basic biological concepts with emphasis on general cell processes, plant and animal diversity, morphology, limited reproduction, phylogeny of the living organisms, exploration of molecular genetics. Lab fee. Transfer class.

CCN eL/OC NW-L NW NW-AB \$FN

2037 General Biology W/Lab

BIOL&160.H7 5 AS1617 M 2:00P-3:50P Goulet, E 13 seats left
 Additionally, meets AS1617 W 2:00P-4:50P

Basic biological concepts with emphasis on general cell processes, plant and animal diversity, morphology, limited reproduction, phylogeny of the living organisms, exploration of molecular genetics. Lab fee. Transfer class.

CCN eL/OC NW-L NW NW-AB \$FN

2045 General Biology W/Lab

BIOL&160.08 5 AS1617 MW 6:00P-9:20P Barndt, K Waitlist: 1

25

2053 Majors Cellular

BIOL&211.05 5 AS1617 MT 12:00P-1:50P Fox, T
 Additionally, meets AS1617 Th 1:00P-1:50P
 Additionally, meets AS1614 W 12:00P-1:50P

Waitli:

Initial course in majors biology series, a three-quarter sequence that introduces biology in preparation for advanced study in areas of biological science such as medicine, dentistry, cell biology, microbiology, or veterinary medicine. BIOL& 211 has emphasis on cellular biology including cell structure organization, metabolism, energetics and genetics. Prereq: One quarter of college-level chemistry with a 2.0 or higher. Transfer class.

CCN **NW-L** **NW** **NW-AB** **\$FN**

2061 Majors Animal

BIOL&212.01 5 AS1617 MT 8:00A-9:50A Goulet, E
 Additionally, meets AS1617 Th 8:00A-8:50A
 Additionally, meets AS1614 W 8:00A-9:50A

10 seats

Continuation of the three-quarter majors series. Integrated study of basic concepts concerning animal biology. Emphasizes animal classification, evolution, histology, embryology and examination of animal systems. Includes labs. Prereq: BIOL& 211 with a 2.0 or better. Lab fee. Transfer class

CCN **NW-L** **NW** **NW-AB** **\$FN**

2069 Majors Animal

BIOL&212.03 5 AS1617 MT 10:00A-11:50A Saunders, B
 Additionally, meets AS1614 W 10:00A-10:50A
 Additionally, meets AS1617 Th 10:00A-11:50A

4 seats

Continuation of the three-quarter majors series. Integrated study of basic concepts concerning animal biology. Emphasizes animal classification, evolution, histology, embryology and examination of animal systems. Includes labs. Prereq: BIOL& 211 with a 2.0 or better. Lab fee. Transfer class

CCN **NW-L** **NW** **NW-AB** **\$FN**

2075 Majors Animal

BIOL&212.09 5 AS1617 TTh 6:00P-9:20P Bauman, L

Waitlist

Continuation of the three-quarter majors series. Integrated study of basic concepts concerning animal biology. Emphasizes animal classification, evolution, histology, embryology and examination of animal systems. Includes labs. Prereq: BIOL& 211 with a 2.0 or better. Lab fee. Transfer class

N **CCN** **NW-L** **NW** **NW-AB** **\$FN**

2105 Human A & P 1

BIOL&241.01 5 AS1615 MW 8:00A-9:50A Hays, L
 Additionally, meets AS1627 Th 8:00A-8:50A
 Additionally, meets AS1627 T 8:00A-9:50A

Waitli:

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

CCN Common Course Number

This class is part of the **Common Course Numbering** system, which indicates that it's essentially equivalent at all Community Colleges in Washin. If this class is part of a series, it is strongly recommended that you complete the entire series at North Seattle Community College.

NW-L Natural World-Lab S

26

NW Natural World

This class fulfills the Natural World requirement for AA and AS transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

NW-AB Natural World -AB

This class fulfills the Natural World requirement for AB DTA/MRP degree. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

\$FN Science Lab Fee (FN)

\$46.00

Covers costs associated with maintenance of equipment and supplies for science laboratories.

Fee is charged per course.

2111 Human A & P 1

BIOL&241.03	5	AS1615	MW	10:00A-11:50A	Iverson, H	Waitli:
Additionally, meets	AS1627	T		10:00A-11:50A		
Additionally, meets	AS1627	Th		11:00A-11:50A		

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

CCN **NW-L** **NW** **NW-AB** **\$FN**

2117 Human A & P 1

BIOL&241.05	5	AS1615	MW	12:00P-1:50P	Iverson, H	Waitli:
Additionally, meets	AS1627	T		12:00P-1:50P		
Additionally, meets	AS1627	Th		12:00P-12:50P		

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

CCN **NW-L** **NW** **NW-AB** **\$FN**

2119 Human A & P 1

BIOL&241.H7	5	AS1615	MW	2:00P-4:20P	Iverson, H	22 seats
Additionally, meets	AS1521	T		2:00P-2:50P		

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

CCN **NW-L** **NW** **NW-AB** **\$FN**

2123 Human A & P 1

BIOL&241.08	5	AS1521	MW	6:00P-7:40P	Price, J	Waitli:
Additionally, meets	AS1615	MW		7:50P-9:30P		

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

N **CCN** **NW-L** **NW** **NW-AB** **\$FN**

27

Elementary human anatomy and physiology described and illustrated in lecture and lab. Designed to establish a basis for studying clinically related subjects in the paramedical fields. Prereq: BIOL& 160 or CHEM& 121 with a 2.0 or better and ENGL& 101 eligibility. Lab fee. Transfer class.

N **CCN** **NW-L** **NW** **NW-AB** **\$FN**

2135 Human A & P 2

BIOL&242.01 5	AS1627	M	8:00A-8:50A	Sargizi, M	11 seats
Additionally, meets	AS1627	W	8:00A-9:50A		
Additionally, meets	AS1615	TTh	8:00A-9:50A		

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

CCN Common Course Number

This class is part of the **Common Course Numbering** system, which indicates that it's essentially equivalent at all Community Colleges in Washin. If this class is part of a series, it is strongly recommended that you complete the entire series at North Seattle Community College.

NW-L Natural World-Lab S

This class fulfills the Natural World Lab Science requirement for some transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

NW Natural World

This class fulfills the Natural World requirement for AA and AS transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

NW-AB Natural World -AB

This class fulfills the Natural World requirement for AB DTA/MRP degree. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

\$FN Science Lab Fee (FN)

\$46.00

Covers costs associated with maintenance of equipment and supplies for science laboratories.

Fee is charged per course.

2141 Human A & P 2

BIOL&242.03 5	AS1627	M	10:00A-10:50A	Sargizi, M	2 seats
Additionally, meets	AS1627	W	10:00A-11:50A		
Additionally, meets	AS1615	TTh	10:00A-11:50A		

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

CCN **NW-L** **NW** **NW-AB** **\$FN**

2157 Human A & P 2

BIOL&242.08 5	AS1615	MW	6:00P-7:40P	Johnson, K	
Additionally, meets	AS1521	MW	7:50P-9:30P		

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

N **CCN** **NW-L** **NW** **NW-AB** **\$FN**

82

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

N CCN NW-L NW NW-AB \$FN

2165 Human A & P 2

BIOL&242.10 5 AS1615 Sa 8:30A-3:00P Dahms, J

9 seats

Continuation of BIOL& 241 . Prereq: BIOL& 241 with a 2.0 or better, ENGL& 101 eligibility. Lab fee. Transfer class.

CCN Common Course Number

This class is part of the **Common Course Numbering** system, which indicates that it's essentially equivalent at all Community Colleges in Washin. If this class is part of a series, it is strongly recommended that you complete the entire series at North Seattle Community College.

NW-L Natural World-Lab S

This class fulfills the Natural World Lab Science requirement for some transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

NW Natural World

This class fulfills the Natural World requirement for AA and AS transfer degrees. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

NW-AB Natural World -AB

This class fulfills the Natural World requirement for AB DTA/MRP degree. Read the description of the degree you are pursuing, check 4-Yr college/university transfer and program requirements and speak with an adviser to ensure this course fulfills your requirements.

\$FN Science Lab Fee (FN)

\$46.00

Covers costs associated with maintenance of equipment and supplies for science laboratories.

Fee is charged per course.

COLLEGE OF LIBERAL ARTS AND SOCIAL SCIENCES

THEATRE

030845	TH-101-01	INTRO TO THEATRE	MW	09:30-10:50	FA AUD	3.00	BLAS M	\$4.50
030846	TH-101-02	INTRO TO THEATRE	TTH	09:30-10:50	FA AUD	3.00	BLAS M	\$4.50
030847	TH-102-01	ACTING I	MW	12:30-13:50	FA AUD	3.00	ARIAY T	\$4.50
030848	TH-292-01	THEATER PRACTICUM	TBA	TBA	FA AUD	1.00	BLAS M	\$4.50
030849	TH-316-01	LIGHTING DESIGN	MW	11:00-12:20	FA AUD	3.00	MCVEY T	\$4.50
030850	TH-426-01	THEATER HISTORY II	TTH	11:00-12:20	FA AUD	3.00	BLAS M	

WOMEN & GENDER STUDIES

WG-101-01	INTRO TO WOMEN & GENDER STUD	TBA	TBA	INT INTERNET	3.00	THOMPSON H	031095	\$4.50
031096	WG-101-02	INTRO TO WOMEN & GENDER STUD	TBA	TBA	ON-LINE LEARNING (INTERNET)	3.00	THOMPSON H	\$4.50
031097	WG-101-03	INTRO TO WOMEN & GENDER STUD	TBA	TBA	INT INTERNET	3.00	THOMPSON H	\$4.50
031099	WG-101-04	INTRO TO WOMEN & GENDER STUD	MW	12:30-13:50	HSS 203	3.00	SMITH S	\$4.50
031100	WG-101-05	INTRO TO WOMEN & GENDER STUD	TTH	12:30-13:50	HSS 301	3.00	HARTIG A	\$4.50
031101	WG-101-06	INTRO TO WOMEN & GENDER STUD	TTH	14:00-15:20	HSS 301	3.00	ODEN A	\$4.50
031102	WG-201-01	GENDER AND SOCIETY	TBA	TBA	INT INTERNET	3.00	THOMPSON H	
031093	WG-230-01	MARRIAGE AND THE FAMILY	TTH	11:00-12:20	ON-LINE LEARNING (INTERNET)	3.00	AMES A	\$4.50
031104	WG-391-01	SELECTED STUDIES IN WGS: GENDER, SEX AND REPRODUCTIVE HEALTH	MW	09:30-10:50	HSS 303	3.00	SMITH S	
031106	WG-455-01	PSYCHOLOGY OF WOMEN	TTH	12:30-13:50	HSS 203	3.00	SMITH S	

COLLEGE OF NATURAL AND APPLIED SCIENCES

AGRICULTURE

031633	AG-101-01	INTRO TO AGRICULTURE	MWF	09:00-09:50	ALS 127	4.00	CRUZ J	\$24.00
	AG-101L-01	INTRO TO AGRICULTURE LAB	W	10:00-12:50	ALS 124			
031824	AG-102-01	INTRODUCTION TO PLANT SCIENCE	TBA	TBA	INT INTERNET	4.00	MCCONNELL J	\$24.00
	AG-102L-01	INTRODUCTION TO PLANT SCIENCE LAB	TBA	TBA	INT INTERNET			
031569	AG-109-01	THE INSECT WORLD	TTH	17:30-18:50	ON-LINE LEARNING (INTERNET)	4.00	MOORE A	\$24.00
	AG-109L-01	THE INSECT WORLD LAB	S	09:00-11:50	ALS 124			
031586	AG-136-01	SCIENCE OF AQUACULTURE	MW	12:30-13:50	ALS 127	4.00	GONG H	\$24.00
	AG-136L-01	SCIENCE OF AQUACULTURE LAB	F	12:00-14:50	ALS 124			
031567	AG-281-01	PRIN OF HORTICULTURAL SCIENCE	MW	09:30-10:50	ALS 125B	4.00	MARUTANI M	\$24.00
	AG-281L-01	PRIN OF HORTICULTURAL SCIENCE LAB	TH	12:30-15:20	ALS 124			
031518	AG-342-01	PRIN OF AGRICULTURAL ENGINEER	TTH	09:00-10:20	ALS 125A	4.00	SINGH P	\$24.00
	AG-342L-01	PRIN OF AGRICULTURAL ENGINEER LAB	F	15:00-17:50	ALS 124			
031565	AG-392-01	LAB TEACHING ASSISTANTSHIP	TBA	TBA	TBA	1.00	MARUTANI M	
031841	AG-443-01	ENGINEERING TECH FOR SUST AGR	MW	09:00-10:20	ALS 125A	4.00	SINGH P	\$24.00
	AG-443L-01	ENGINEERING TECH FOR SUST AGR LAB	M	15:00-17:50	ALS 124			
031680	AG-481-01	ENVIRONMENTAL SOIL SCIENCE	TTH	09:30-10:50	ALS 125B	4.00	GOLABI M	\$24.00
	AG-481L-01	ENVIRONMENTAL SOIL SCIENCE LAB	T	13:00-16:00	TBA			
031512	AG-486-01	ORNAMENTAL CROP PROD IN TROPIC	TBA	TBA	TBA	4.00	MCCONNELL J	\$24.00
	AG-486L-01	ORNAMENTAL CROP PROD IN TROPIC LAB	TBA	TBA	TBA			
031835	AG-491-01	SEMINAR	TH	12:00-12:50	TBA	1.00	GOLABI M	
031563	AG-492-01	PRACTICUM	TBA	TBA	TBA	3.00	BARBER L	
031529	AG-498-01	INTERNSHIP	TBA	TBA	TBA	1.00	STAFF	
031557	AG-498-02	INTERNSHIP	TBA	TBA	TBA	2.00	STAFF	
031562	AG-498-03	INTERNSHIP	TBA	TBA	TBA	3.00	STAFF	

BIOLOGY

031730	BI-100-01	ENVIRONMENTAL BIOLOGY	MW	14:00-15:20	SC 101	3.00	LINDSTROM D	
031731	BI-100-02	ENVIRONMENTAL BIOLOGY	TTH	14:00-15:20	SC 101	3.00	LOFDAHL K	
031732	BI-100L-01	ENVIRONMENTAL BIOL LAB	T	08:00-10:50	TBA	1.00	STAFF	\$42.00
031733	BI-100L-02	ENVIRONMENTAL BIOL LAB	TH	08:00-10:50	TBA	1.00	LINDSTROM D	\$42.00
031734	BI-100L-03	ENVIRONMENTAL BIOL LAB	F	08:00-10:50	TBA	1.00	FIEDLER G	\$42.00
031735	BI-100L-04	ENVIRONMENTAL BIOL LAB	F	08:00-10:50	TBA	1.00	LOFDAHL K	\$42.00
031736	BI-100L-05	ENVIRONMENTAL BIOL LAB	S	08:00-10:50	SC 101	1.00	STAFF	\$42.00
031737	BI-103-01	MARINE BIOLOGY	MW	11:00-12:20	ML 205	3.00	BIGGS J	
031738	BI-103L-01	MARINE BIOLOGY LAB	F	12:00-15:50	ML 205	1.00	BIGGS J	\$42.00
031739	BI-125-01	HUMAN ANATOMY & PHYSIOLOGY II	MW	11:00-12:20	SC 101	3.00	FIEDLER G	
031742	BI-125-02	HUMAN ANATOMY & PHYSIOLOGY II	TTH	12:30-13:50	SC 101	3.00	FIEDLER G	
031743	BI-125L-01	HUMAN ANATOMY & PHYSIO II LAB	M	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031744	BI-125L-02	HUMAN ANATOMY & PHYSIO II LAB	T	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031745	BI-125L-03	HUMAN ANATOMY & PHYSIO II LAB	W	08:00-10:50	SC 112	1.00	ROTH M	\$42.00
031746	BI-125L-04	HUMAN ANATOMY & PHYSIO II LAB	W	14:00-16:50	SC 112	1.00	ROTH M	\$42.00
031747	BI-125L-05	HUMAN ANATOMY & PHYSIO II LAB	TH	14:00-16:50	SC 112	1.00	RIGHETTI T	\$42.00
031748	BI-157-01	PRINCIPLES OF BIOLOGY I	MWF	09:00-09:50	SC 101	3.00	MOOTS K	
031749	BI-157L-01	PRINCIPLES OF BIOLOGY I LAB	M	14:00-16:50	SC 110	1.00	RIGHETTI T	\$42.00
031750	BI-157L-02	PRINCIPLES OF BIOLOGY I LAB	T	08:00-10:50	SC 110	1.00	RIGHETTI T	\$42.00
031751	BI-157L-03	PRINCIPLES OF BIOLOGY I LAB	TH	08:00-10:50	SC 110	1.00	RIGHETTI T	\$42.00
031752	BI-201-01	NATURAL HISTORY OF GUAM	MWF	10:00-10:50	SC 101	3.00	CAMACHO F	
031753	BI-303-01	ANIMAL DIVERSITY	MWF	10:00-10:50	SC 110	3.00	MOOTS K	
031754	BI-303L-01	ANIMAL DIVERSITY LABORATORY	T	08:00-10:50	SC 112	1.00	MOOTS K	\$42.00
031755	BI-310-01	EVOLUTION	TTH	17:00-18:20	SC 110	3.00	LOFDAHL K	
031756	BI-321-01	SCIENTIFIC AGRUMENTS	TTH	11:00-12:20	SC 110	2.00	STAFF	
031757	BI-392-01	LAB TEACHING & ASSISTING	TBA	TBA	TBA	1.00	LOFDAHL K	
031758	BI-392-02	LAB TEACHING & ASSISTING	TBA	TBA	TBA	1.00	LOFDAHL K	
031759	BI-412-01	BIOMETRICS	MW	11:00-12:20	SC 110	3.00	CAMACHO F	\$42.00
031760	BI-412L-01	BIOMETRICS LABORATORY	F	14:00-16:50	SC 110	1.00	CAMACHO F	\$42.00
031761	BI-419-01	BIOCHEMISTRY	TTH	11:00-12:20	SC 101	3.00	GHOSH S	
031763	BI-419L-01	BIOCHEMISTRY LAB	M	14:00-16:50	SC 103	1.00	GHOSH S	\$42.00
031765	BI-425-01	MOLECULAR BIOLOGY	MW	11:00-12:20	SC 120	3.00	GHOSH S	
031767	BI-425L-01	MOLECULAR BIOLOGY LABORATORY	TTH	14:00-16:50	SC 103	2.00	GHOSH S	\$42.00

College Catalog 2012-2013

Biology Courses

NOTE: Prerequisites and transfer courses must be no older than 10 years and must have been passed with a grade of "C" or better. All biology courses require ENGL 101 placement.

BIOL 106 General Biology I

3-2-4

Introduction to the general principles of biology using the human organism as the model for study. Topics include structural organization, metabolism and energy, reproduction and inheritance, and evolution and ecology. This course is designed for non-majors, health career and transfer students.

*Additional course fee: \$150.**

BIOL 107 General Biology II

3-2-4

This course is designed to provide students with an understanding of the diversity of plant and animal life, and animal behavior. This is the second of two courses in the General Biology series. These courses are designed for the non-biology major. Prerequisite: BIOL 106.

*Additional course fee: \$150.**

BIOL 108 Essentials of Human Anatomy and Physiology

3-2-4

The purpose of this course is to provide students with a comprehensive one semester course on the structure and function of the human body. Basic anatomy and physiology of all major organ systems will be covered in lecture and laboratory settings. Lab includes dissection demonstrations by course instructor.

BIOL 109-110 Anatomy and Physiology I & II

3-2-4

Human physiology and biochemistry are studied systematically in lectures while anatomy is stressed in laboratory experiences requiring extensive dissection. This two semester sequence follows the recommendations of the Human Anatomy and Physiology Society. BIOL 109 is designed for students who have had high school biology and chemistry within 10 years or who have passed BIOL 106. BIOL 109 is a prerequisite for BIOL 110.

*Additional course fee (BIOL 109 and BIOL 110): \$150.**

BIOL 123 Cellular and Molecular Biology

3-2-4

Designed for majors in the sciences and students interested in careers in science and technology, this course is an introduction to the fundamentals of modern cellular and molecular biology. Prerequisites: CHEM 121 or CHEM 110 and high school biology or permission of the department head.

*Additional course fee: \$150.**

BIOL 124 Organismal Biology

3-2-4

This course explores the major groups of organisms with an emphasis on plant and animal structural, functional, ecological and evolutionary themes. *Dissection required. Prerequisite: BIOL 123.

*Additional course fee: \$150.**

BIOL 211 Genetics

3-2-4

Basic principles of genetics using biochemical and molecular models are presented in lecture and laboratory experience. Collection and statistical analysis of data are an integral part of laboratory. Prerequisite: BIOL 106 or BIOL 107 or BIOL

3-2-4

Bacteria and viruses are studied. An emphasis is placed on the growth, metabolism, physiology and genetics of bacteria and viruses in lecture and laboratory experiences. Clinical aspects of selected microbes are discussed. Prerequisite: BIOL 106 or BIOL 107 or BIOL 109 or BIOL 123.

*Additional course fee: \$150.**

BIOL 255 Biotchnology I: Basic Laboratory Techniques in Biotechnology

2-4-4

This course focuses on foundation knowledge and lab competencies that are critical to success in the biotechnology industry. Learning to perform lab functions, such as making solutions, performing serial dilutions, making buffers, balancing pH, performing gel electrophoresis, and packing liquid chromatography columns, requires that students develop an understanding of the concepts and mathematics involved, practice the procedures, and demonstrate the competency to execute them. Prerequisites: MATH 118 or higher or MATH 161 placement; CHEM 110 or CHEM 121; BIOL 123.

*Additional course fee: \$150.**

BIOL 256 Fermentation, Bioprocessing and Biomanufacturing

2-4-4

This course is primarily project-based. Working in teams, students use fermentation and bioprocessing technologies to produce recombinant proteins in a biomanufacturing industry setting. They are expected to follow standard operating procedures (SOPs), utilize aseptic technique, properly document their activities and apply current good manufacturing practice (cGMP). They need to work effectively in their teams and demonstrate good time management. Students draw upon essential knowledge and skills developed in BIOL 255 to complete projects. Prerequisite: BIOL 255 with a grade of "C" or better.

*Additional course fee: \$150.**

BIOL 271 Pathophysiology I

4-0-0-4

Pathophysiology I offers an overview of abnormal physiological processes leading to human disease. Particular emphasis is placed on the etiology, pathogenesis, diagnostic findings, and clinical manifestations of specified illnesses. Also included are general overviews of risk factors, disease incidences and therapeutic managements as they apply to each pathophysiological condition discussed. Prerequisites: BIOL 110 and BIOL 241.

BIOL 272 Pathophysiology II

4-0-0-4

This course provides an overview of abnormal physiological processes leading to human disease. Particular emphasis is placed on the etiology, pathogenesis, diagnostic findings and clinical manifestations of specified illnesses. Also included are general overviews of risk factors, disease incidences and therapeutic managements as they apply to each pathophysiological condition discussed. Topics covered in this course include alterations in hematology, and diseases of the cardio-vascular, respiratory, digestive, urinary and reproductive systems. Prerequisites: BIOL 271.

Unless otherwise noted, all college level courses require English 101 placement.

*Effective Fall 2011.