	ACADEMIC YR: 2014-15	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--



LOS ANGELES HARBOR COLLEGE

College Mission:

Los Angeles Harbor College fosters learning through comprehensive programs that meet the educational needs of the community as measured by student success, personal and institutional accountability, and integrity.


Science Family & Consumer Studies Division

Unit Plan

2014 – 2015

Joyce Parker
Division Chair

Contact: **310 233-4556**

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Unit Plan “Part A”

1. Assessment of Program/Discipline Review:

Astronomy:

The mission of the Los Angeles Harbor College's Planetarium is not only to create transparency and enrichment in astronomical subjects, but also to stimulate reflective thought and practicum preparation for our astronomy students. Presenting a variety of **Astronomy Shows** which include marketing support materials and Educator's Guides with a variety of pre- and post-visit activities will develop and implement innovative domain concept ideas and activities. In addition, these shows can also be presented in workshops to further professional development that is essential for faculty to gain knowledge into current trends/research and to update course content.

As there has been great positive response and enthusiasm from attending faculty and astronomy students in watching the Astronomy Shows, I would like the following additional **Astronomy Shows** to be purchased for the planetarium.

Chemistry:


The mission of the Los Angeles Harbor Chemistry Department is to provide the students with college level courses that are transferable to the UC and CSU systems. Currently the courses have the option of honors through the use of Honors Contracts. Currently the development of honors sections is being developed by the HTCC (Honors Transfer Council of California) in order to full-fill UCLA-TAP (Transfer Alliance Program) requirements.

The chemistry program contains two pathways:

1. Allied Health – These are the non-science majors who are seeking a career in the health fields such as nursing. The students in this pathway take chemistry 065-*Introduction to Chemistry* and chemistry 066 – *Introduction to Organic and Biochemistry*.
2. Science – These are the science majors who are seeking to transfer to a 4 year college to major in a science field such as Engineering, Chemistry, Physics, and Biology. The students in this pathway take Chemistry 101 – *General Chemistry 1*, Chemistry 102 – *General Chemistry 2*, Chemistry 211 – *Organic Chemistry 1*, and Chemistry 212 – *Organic Chemistry 2*. In addition to the transfer students, these courses are also used as pre-requisites for medical school, pharmacy school, and dental school.

Chemistry - <http://www.lahc.edu/slo/ChemistryAssessment.html>

We are in desperate need to incorporate a yearly budget of at least \$500 in order to repair damaged equipment and to buy essential supplies so we can provide suitable lodgings to our current course offerings.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Child Development:

The mission of the LAHC Child Development Department is to provide quality vocational, transfer, and continuing education programs in the field of Early Childhood Education (ECE) in a supportive, educational environment. Coursework is offered that meets California Child Development Permit requirements for associate teacher, teacher, master teacher, site supervisor, and program director positions.

A curriculum that enables the students to successfully meet the Program’s Learning Outcomes will insure the mission of the Child Development Department is reached. The Child Development Department outcomes are as follows:

- ♣ PLO #1 (ILO 2) Demonstrate the use of developmentally appropriate practices for young children.
- ♣ PLO #2 (ILO 5) Evaluate and demonstrate the roles of Early Childhood Education professionals in preparing children for school success. Assessment: Spring 2012
- ♣ PLO #3 (ILO 1) Plan and implement curriculum domain experiences/activities for preschool and/or school-age children.
- ♣ PLO #4 (ILO 5) Advocate for children’s rights to develop their potential for becoming productive, well-adjusted members of society.
- ♣ PLO #5 (ILO 5) Implement a plan for professional success to include obtaining a California Child Development Permit to qualify for employment in programs receiving funding from Federal, State, private (profit and non-profit), and family child care sources. Assessment: Spring 2010
- ♣ PLO #6 (ILO 4) Develop practical ideas for implementing culturally relevant and anti-bias education in core curriculum areas.
- ♣ PLO #7 (ILO 3) Collect data from a variety of resources including the Internet , then transfer and/or apply information into a product or an action.


The need to train students for employment in the ECE Industry is supported by research. A \$210,000 study funded by a collaboration of LAUP, Los Angeles County Child Care Planning Committee, and the City of Los Angeles Workforce Investment Board found that the Early Child Care and Education sector generates more than \$1.9 billion annually in Los Angeles County and employs more than 65,000 people. Yvonne B. Burke, chair of First 5 LA Commission and the county’s Children’s Planning Council, stated, “Small ECE businesses not only educate and care for our children, but lay the groundwork for the county’s future economic success by preparing the next generation for constructive participation in the economy, which will help in attracting business to the area.”

September 2008-Governor Arnold Schwarzenegger signed two bills, SB 1629 and AS 2759. The bills streamline funding for preschools and improve program quality. They are the result of research that indicates children that attend quality early childhood care programs are better prepared for kindergarten and elementary school and are at a lower risk of dropping out of school. The need for teachers with higher level permits and degrees will become even greater.

Culinary Arts:

The mission of the LAHC Culinary Arts Department is to provide quality career technical and continuing education programs in the field of Culinary Arts in a supportive, educational environment.

A curriculum that enables the students to successfully meet the Program’s Student Learning Outcomes (PSLOs) will insure the mission of the Culinary Arts Department is met. The Culinary Arts Department has identified the following as PSLOs.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Students will be able to:

- Demonstrate proficiency in any station of a commercial kitchen including the Garde Mange, butcher, savory, pastry, and short order areas.
- Execute the art of cooking as needed by commercial and institutional segments of the hospitality industry at production and supervisory/management levels.
- Manage a small restaurant operation including the aspects of facilities design, marketing, menu planning, hosting, serving, purchasing, cost controlling, bookkeeping, cashiering, and human resource development.

Employment in foodservice will continue to be in demand despite the economic downturn. The demand for entry level, skilled, and managerial foodservice workers remains very optimistic based on the LACCD Los Angeles Harbor College Occupation Report -Culinary Arts, the April 2009 External SCAN 2008-2018 Economic Trends Report and the National Restaurant Association 2009 and the California Restaurant Industry Forecast.

Restaurant jobs in California will represent 10% of total employment in California with a forecasted 14.9% job growth for the 2009-2019 cycle. In 2009 California restaurants will register \$56.2 billion in sales with each additional \$1million spent in California eating and drinking establishments will generate an additional 27.2 jobs in California.

Curriculum will continue to be developed to provide students with the opportunity to prepare for supervisory and management level positions. In the future students will be able to transition from their culinary training to courses in food and beverage management.

A systemized plan for curriculum development of new courses to complete a Skills Certificate in Baking and Pastry Arts will be developed. The courses to be completed in order for a student to earn said certificate include:

- Breads of the World,
- Cake Design,
- Advanced Baking Skills,
- Retail Bakery Management,
- Cooperative Education in Baking and Pastry Arts I.

A long range plan is to develop an associate's degree in Baking and Pastry Arts. Additional advanced classes planned for such a degree include:


- Pastry Arts,
- Introduction to Chocolate Cookery,
- Introduction to Sugar Arts,

Principles of Quantity Baking

Geography:

The new Science Complex Geography Room 109 is a fantastic classroom: students like to come, and some don't want to leave because the learning atmosphere and plant beauty are like magnets.

Geography is not merely "general education": a global perspective, thinking critically and geographically are survival skills in today's world: we aim to expand students' global and spatial thinking and 'brain inter-connectivity' with comparative world and regional map analysis, nature observations, drawings of landforms, rocks, plants, comparisons of resources and economic livelihoods. Weekend field trips take advantage of nearby canyons, Pacific Ocean coast, local interpretive centers, plus the great multicultural diversity of Los Angeles ethnic neighborhoods for '3-D' enrichment and long-term memory. Outdoor observations are especially vivid; writing about and drawing them foster longevity and connections in the brain. Students regularly report several

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

years later, "I love those field trips we went on!," "I still watch the sky!," and "I go hiking all the time now."

in Fall 2013, 68% of Geography 1 students passed comprehensive final exams (by Scantron summaries), and many now are top A's. In both Geography 7 World Regional Geography and Geography 15 Physical Geography Laboratory (evening courses), A's and B's dominate final grades; and students are more prepared to transfer.

December 2013 Geography course evaluations showed that most students praise the courses, field trips, classroom, and many admitted they did not study as hard as they should have. The two Geography 1 books, Smithsonian Earth and Physical Geography, A Self-Teaching Guide, have saved students money, but because a 2014 goal is to specifically increase their success rate, the new Visualizing Physical Geography text can help students with many online resources and practice test questions, to try to raise up their thinking skills and retention. In Spring 2014, course SLO's will be re-assessed and reworded to match the Transfer Model Curriculum Geography Programs around the state.

Geology/Oceanography:

Despite being a pair of non-major, elective course offerings, Geology and Oceanography classes have been steadily growing in student enrollment over the past ten years. Student learning outcomes have been established and are in the process of being synchronized with SLOs of other pathways that are categorized with Geology/Oceanography in the Earth Sciences and Physical Sciences. The classroom (SCI 210) used for these courses needs audio video improvements. We are eagerly awaiting the completion of the new Science Building Complex which will add much needed classroom technology. Additionally this classroom lacks a proper cooling system making it very uncomfortable during warm days. The new building will be a solution to this issue. As housing/storing of many currently owned geological pieces equipment and rock samples in the New Science Complex is an issue, storage in the new facility will be a solution to this problem. The two courses are intimately related to students attending numerous field classes, funding for transportation, and support materials. The Geology/Oceanography courses will be taught in the new Science Complex beginning in Fall 2012.


Life Science:

Los Angeles Harbor College Mission: Los Angeles Harbor College fosters learning through comprehensive programs that meet the educational needs of the community as measured by student success, personal and institutional accountability, and integrity. The mission of the Los Angeles Harbor College Life Sciences Program is to provide a supportive, quality, educational environment for students transitioning or transferring into a variety of biological and medical science-related programs, and students fulfilling general associate degree and transfer requirements.

A curriculum that enables the students to successfully meet the program's learning outcomes will ensure the mission of the Life Science Program is reached. The Life Science Program are as follows:

- PLO #1(ILO 2): Students comprehend proper microscope components and functions.
- PLO #2(ILO 2): Students comprehend cells as a common thread in all living organisms.
- PLO #3(ILO 3): Students can evaluate the validity and limitations of scientific theories and claims.
- PLO #4(ILO 5): Students demonstrate continued academic preparedness.

Some of our faculty members (Sue Yoder and Randy Wade) have completed some requirements for teaching online courses (ETUDES certification). This will allow our department to offer more courses to students that potentially live in more remote areas and can better fit online schedules into their lives.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Our faculty will continue to regularly attend workshops, seminars, and conferences to update curriculum and improve instruction. Faculty members actively participate in several campus committees, we are part of the STEM grant program, and are involved in community issues.

We have purchased some new anatomical models, skeletons, and loose bone collections to replace damaged items, but we still need more to continue replacing damaged items. We also need more equipment and supplies to fully accommodate our current course offerings, especially in the Majors Biology courses. This includes the following:

Physics Department

The inventory of Physics Department equipment is not complete. The inventory may not be completely fixed until summer 2014. The plan is to not only provide an accurate inventory, but to list the equipment and equipment location for each lab, for each course. A professor would only have to go to that listing to find the equipment for the day's lab, and use that listing to return the equipment to the proper location when the lab is finished.


The descriptions of the Physics and Physical Science courses in the Schedule of Classes need to be updated. Professor Morris proposed a new set of descriptions to the Division Chairperson for fall 2014 Schedule of Classes.

A blockage has developed in moving students through the system. Currently, Physics 11 or its high-school equivalent is required for Physics 37 (the first of the three calculus-based engineering courses), because otherwise too many students would attempt to enroll at the start of the semester and be turned away, and those that did get in would experience a high failure rate because so many of them would be unprepared. Unfortunately, so many students are now applying to enroll in Physics 11 that we are turning away dozens every semester, as there is not enough lab equipment for more than 35 students. As a result, students can't get the Physics 11 preparation they need, and the Physics 37, 38 and 39 sequence is under-utilized.

Some new equipment should be purchased, to replace old and worn-out equipment such as the vernier calipers and micrometers. An informal 'wish list' was used in the past to keep track of needed purchases. Such a list would be useful, if a yearly budget were provided for such purchases. We are in desperate need to incorporate a yearly budget of at least \$1000 in order to repair damaged equipment and to buy essential supplies so we can provide suitable lodgings to our current course offerings.

2.Activities to address program needs:

1. The Science/Family and Consumer Studies maintains and adds offerings essential to providing students with courses needed for 1) pre-requisites to health fields; 2) general education requirements that lead to certificates, AA and AS degrees, and transfer certification; 3) CTE degree requirements.
2. Our division continues assessment at the course, program, and institutional level.
3. Our division continues collecting, purchasing equipment, and supplies needed to maintain and enrich classroom environments that stimulate reflective thought in all SCI/F&CS Departments.
4. Our division attends conferences and workshops to further professional development that is essential for faculty to gain knowledge into current trends/research and to network to update course content.
5. Access training for use of software and/or equipment.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

6. Our division supports student success by providing detailed syllabi and participating in campus activities that provide techniques for students to improve in essential skills.
7. Continue to present the annual LAHC Child Development Conference in addition to various other workshops which provide present and future ECE educators (LAHC students, Mentor Teachers, and community early care providers) with innovative domain concept ideas and activities.
8. Promote professionalism by encouraging students to join NAEYC (National Association for the Education of Young Children) and affiliates that provide training workshops, networking, and employment leads. (A NAEYC representative will be asked to speak in Child Development classes to advise students of the benefits associated with membership.)
9. Develop a one-unit elective course every two years to meet a graduation requirement or professional growth hours (105 hours required every five years to renew California Child Development Permits). Proposed topics include Music and Movement, Positive Discipline, and Learning Disabilities. Additional topics will be delivered at the advice of the Child Development Vocational Advisory Committee.
10. Present new course outline for CH DEV 007 to the Campus Curriculum Committee to replace CH DEV 004.
11. The Culinary Arts department will begin preparation to apply for program accreditation with the American Culinary Federation.
12. The Culinary Arts department hires student workers/tutors to assist in curriculum and practicum laboratories.
13. Develop curriculum to establish a Culinary Arts Certificate with a baking emphasis.
14. Purchase a service contract for equipment for life and physical science laboratories to maintain the quality and precision of the instruments.
15. Research, investigate, and develop STEM curricula that will be used to update the appropriate courses, 2) begin acquiring supplies and equipment that will be used now and in the future to prepare practicum students to integrate STEM activities in lesson planning, 3) Plan and host a workshop for future and current educators (representing LAHC and local community members) that exposes participants to STEM activities.


3. How are your program improvements associated with your SLOs:

We moved into a new State-of-the-Art Science Complex, which includes internet access, multimedia projection capability, and some new equipment. A computer is available in every lab. Laboratory instruction includes state-of-the-art software, basic biotechnology equipment, microscopes for non-majors and anatomy laboratories, and digital microscopes for microbiology laboratories. Our faculty is working to incorporate the new technology into our curricula to enhance instruction and increase student success. Students are actively utilizing the student collaborative learning areas for group study and tutoring sessions.

4. Staffing requirements:

Chemistry – A full-time laboratory technician is needed to prepare the laboratory solutions and to set up the laboratory equipment. Other responsibilities include keeping an up dated inventory list and ordering supplies as needed.

A sufficient number of qualified faculty members are also required in order to staff the laboratory sections of each course.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Child Development –The Child Development Department experienced two retirements during the 2010-2011 Academic Year. Budget cuts mandated reducing the number of classes taught in the Department during the 2011-2012 Academic Year. Adjunct faculty were assigned to cover the few remaining classes originally assigned to the retirees. The need for a full-time faculty position will be dictated by the future economic state of the college. Certainly the reduction of faculty impacts the presence of the Department in governance and standing committee meetings.

Culinary Arts- We are currently in need of at least two (2) full time faculty and four (4) adjunct faculty positions in order to maintain a quality education delivery for our students. We also need seven (7) to eight (8) student workers and two (2) instructional lab assistants to assist in the laboratory component of the curriculum.

Geography- In order to meet the demands of course offerings, staffing positions could be added to teach Geography 1, 2 and 7.

Life Science-Upon retirement of any fulltime faculty member, replacement will be essential to conduct the varied responsibilities associated with keeping the Life Science Program viable and respected. Additionally, a second fulltime or part-time laboratory technician would improve our ability to meet students laboratory needs. Also, it is imperative that a tutor is hired to assist instructors in the anatomy labs.

Physics

In order to meet the demands of course offerings the department is in the need to hire at least one other full-time professor. Years ago, the Department had three full-time professors (Morris, Bob Fielding and Joan Fu).


The Department also needs a stockroom technician to replace Russ Whiting, who retired a couple of years ago and was not replaced. Broken equipment (e.g. the free-fall apparatus) is not being repaired, and the professors are often at a loss to know what equipment is required for the labs, or where that equipment is. More significantly, the professors may not know where to return the equipment that has been taken out of storage for use by the students, and there is a danger that equipment will be hidden away at an incorrect location.

5. Technological requirements:

Chemistry – Provide the students with updated technology. In addition to working with a standard laboratory set-up, the following should also be available:

1. Computers – The students must be computer literate upon completing a STEM major. This includes word processing, spread sheets, graphing programs, and molecular modeling software.
2. Instrumentation – pH meters, UV-vis spectrometers, GC, HPLC, FT-IR, NMR.

Child Development - Information technology will be needed to meet needs for use/update of computers, programs, email accounts, and voice mail.

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--


Culinary Arts – The Culinary Arts Department additionally needs IT support for continued computer usage. Plant Facilities is called upon frequently to maintain and repair the equipment essential to the operation of the Culinary Arts Program. Refrigerators, freezers, ovens, mixers, slicers, etc. receive heavy use, and preparation of work orders for Plant Facility representatives’ assistance is a weekly occurrence.

Life Science

A limited number of new laptops and desktop computers are available in the new Science Complex. These new devices require consistent maintenance, service, and upgrades to keep pace with ever-changing technology.

Additionally, we need approximately 40 more laptops and appropriate software to effectively meet student needs. In addition, a supply and equipment list is included below.

item	quantity	vendor	price/item	total
mini microcentrifuges				
SC1008-blue	3	Southwest Science	214.00	1,712.00
SC1008-purple	2	Southwestscience.com		
SC1008-red	3			
SC1008-A5 – 8 adapters for 1.5 ml tubes	1		24.00	24.00
gel/blot rockers				
BenchBlotter 2D Rocker with flat mat BR1000	8	SOCAL Biomedical socialbiomedical.com	359.00	2,872.00
tube rotators				
Variable Speed Tube Rotator STR200-V	4	Southwest Science Southwestscience.com	319.00	1,276.00
balances				
Cole-Parmer Symmetry ED Portable Balance, 2000g x 0.1g, 115VAC WU-10000-05	8	Cole Palmer coleparmer.com	250.00	2,000.00
horizontal electrophoresis				
Horizontal Dual Electrophoresis Cell # 365175	8	Ward’s Science wardsci.com	251.45	2,011.60
water baths				
MyBath Laboratory Mini Water Bath #142212	2	Ward’s Science wardsci.com	825.35	1,650.70
dry baths and blocks				
Digital Dry Bats, Single Dry Bath #158018	2	Ward’s Science wardsci.com	449.30	898.60
Digital Dry Baths, Block, 24 x 0.5 ml centrifuge tubes #158096	2		115.25	230.50
Digital Dry Baths, Block, 24 x 1.5 ml	2		115.25	230.50


	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

centrifuge tubes #158098				
Digital Dry Baths, Block, 20 x 2.0 ml centrifuge tubes #158997	2		110.70	221.40
gel imaging system				
Gel Doc EZ System 170-8270	1	BioRad biorad.com	7,725.00	7,725.00
UV sample tray 170-8271	1		1,030.00	1,030.00
White Light Sample Tray 170-8272	1		1,030.00	1,030.00
Blue Sample Tray 170-8273	1		1,030.00	1,030.00
Sample Tray Holder 170-8276	1		300.00	300.00
tube racks				
Round floating microcentrifuge rack (8 tubes capacity) 60986-099	1 case of 16	VWR International https://us.vwr.com	104.57	104.57
microplate reader				
<u>iMark Microplate Absorbance Reader with Microplate Manager software</u> 168-1135EDU	1	BioRad biorad.com	5,296.00	5,296.00
power supply				
PowerPac HC Power Supply 164-5052EDU	4	BioRad biorad.com	640.00	2,560.00

Oceanography/Geology – Up-grades are essential to the use of the class set of laptops.

Reinstatement of the wireless Internet is needed to present current material in the class with the use of the class set of laptops.

Maintenance of department copiers is an ongoing need of all faculty of the Science/Family & Consumer Studies Division.


	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

6. Facilities requirements:

The Culinary Arts program is in great need of (classrooms, labs) new facilities in order to provide students with the space necessary to practice their cooking skills.

7. Implementation plan:

With faculty involvement, quality courses and training, and continued funding, the department will be able to provide students with courses necessary for transfer, graduation requirements, and admission to allied health programs. This goal will be achieved by the activities cited in question 2 of this document. The move to the new Science Complex which houses our Life Science Program enriches learning environments and opportunities benefiting both faculty and students.

	ACADEMIC YR: 2014-15	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Unit Plan “Part B”

		Approx. Yearly Cost (2015/16)
Divisions Core Personnel/Permanent Staff	13	
Resulting # of sections to be assigned permanent staff per semester*	65	\$1,300,000
Reassigned time per semester (in section equivalents)	0	(13x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	65	per sem.)
*as part of regular full load		

Discipline: Anatomy		Approx. Yearly Cost (2015/16)
Discipline's Core Personnel/Permanent Staff	1	
Resulting # of sections to be assigned permanent staff per semester*	5	\$100,000
Reassigned time per semester (in section equivalents)	0	(1x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	5	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":		Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":		Approx. Yearly Cost (2015-16)
ANATOMY	1	INTRODUCTION TO HUMAN ANATOMY	6	1	0	1	1	1	0	1	1	
ANATOMY	001 L	INTRODUCTION TO HUMAN ANATOMY	1	3	3	0		3	3	0		\$60,000
ANATOMY	001 L	INTRODUCTION TO HUMAN ANATOMY	1	1	1	0		1	1	0		\$20,000
ANATOMY	001 L	INTRODUCTION TO HUMAN ANATOMY	1	1	1	0		1	1	0		

Discipline: Astronomy		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	0	
Resulting # of sections to be assigned permanent staff per semester*	0	\$
Reassigned time per semester (in section equivalents)	0	(2x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	0	per sem.)

Discipline: Biology		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	2	
Resulting # of sections to be assigned permanent staff per semester*	10	\$200,000
Reassigned time per semester (in section equivalents)	0	(2x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	10	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":		Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":		Approx. Yearly Cost (2015-16)
BIOLOGY	3	INTRODUCTION TO BIOLOGY	6	8	8	0		8	8	0		
BIOLOGY	5	INTRODUCTION TO HUMAN BIOLOGY	6	1	1	0		1	1	0		
BIOLOGY	33	MEDICAL TERMINOLOGY	3	1	0	1	1	1	0	1	1	
BIOLOGY	101	BIODIVERSITY AND ENVIRONMENTAL BIOLOGY	7	1	1	0		1	1	0		\$20,000
BIOLOGY	102	MOLECULAR CELL BIOLOGY AND EVOLUTION	7	1	1	0		1	1	0		
BIOLOGY	103	MOLECULAR GENETICS AND PHYSIOLOGY	7	0	0	0		0	0	0		\$0
BIOLOGY	103	MOLECULAR GENETICS AND PHYSIOLOGY	7	0	0	0		0	0	0		

Discipline: Child Development		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	4	
Resulting # of sections to be assigned permanent staff per semester*	20	\$400,000
Reassigned time per semester (in section equivalents)	0	(4x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	20	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":		Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":		Approx. Yearly Cost (2015-16)
CH DEV	1	CHILD GROWTH AND DEVELOPMENT	3	0	2	-2		0	2	-2		\$40,000
CH DEV	2	EARLY CHILDHOOD: PRINCIPLES AND PRACTICES	3	1	1	0		1	1	0		\$20,000
CH DEV	3	CREATIVE EXPERIENCES FOR CHILDREN I	3	0	2	-2		0	2	-2		
CH DEV	4	CREATIVE EXPERIENCES FOR CHILDREN II	3	1	1	0		1	1	0		



ACADEMIC YR:
2015-16

DIVISION/AREA:
Science/Family &
Consumer Studies

DIVISION CHAIR/DIRECTOR:
Joyce Parker

CH DEV	5	PUPPETRY I	3	0	0	0	0	0	0	0	
CH DEV	10	HEALTH, SAFETY AND NUTRITION	3	1	0	1	1	0	1	1	\$0
CH DEV	11	HOME, SCHOOL AND COMMUNITY RELATIONS	3	1	1	0	1	1	0		
CH DEV	12	PARENT-TEACHER-CHILD INTERACTION	3	1	0	1	1	0	1	1	\$0
CH DEV	22	PRACTICUM IN CHILD DEVELOPMENT I	8	2	2	0	2	2	0		
CH DEV	23	PRACTICUM IN CHILD DEVELOPMENT II	8	0	0	0	0	0	0		
CH DEV	30	INFANT AND TODDLER STUDIES I	3	0	0	0	0	0	0		
CH DEV	31	INFANT AND TODDLER STUDIES II	3	0	0	0	0	0	0		
CH DEV	36	LITERATURE FOR EARLY CHILDHOOD	1	1	1	0	1	1	0		
CH DEV	38	ADMINISTRATION & SUPERVISION OF EARLY CHILDHOOD PROGRAMS I	3	0	0	0	0	0	0		
CH DEV	39	ADMINISTRATION & SUPERVISION OF EARLY CHILDHOOD PROGRAMS II	3	0	0	0	0	0	0		\$0
CH DEV	42	THE CHILD IN A DIVERSE SOCIETY	3	1	0	1	1	0	1	1	
CH DEV	45	PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS II	3	1	1	0	1	1	0		\$20,000
CH DEV	65	ADULT SUPERVISION/EARLY CHILDHOOD MENTORING	2	1	1	0	1	1	0		
CH DEV	75	CHILD SAFETY	1	0	0	0	0	0	0		
CH DEV	185	DIRECTED STUDY - CHILD DEVELOPMENT	1	1	0	1	1	0	1	1	


Discipline: Culinary Arts		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	2	
Resulting # of sections to be assigned permanent staff per semester*	10	\$200,000
Reassigned time per semester (in section equivalents)	0	(2x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	10	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
CLN ART	113	CULINARY SKILLS I	7	2	2	0	2	2	0	
CLN ART	114	AROMATICS	6	2	2	0	2	2	0	
CLN ART	115	FOOD FABRICATION	4	1	1	0	1	1	0	
CLN ART	116	PRODUCT IDENTIFICATION AND PURCHASING	4	1	1	0	1	1	0	
CLN ART	117	FOOD SANITATION AND SAFETY	5	1	1	0	1	1	0	
CLN ART	123	CULINARY SKILLS II	7	1	0	1	1	0	1	\$0
CLN ART	124	MENU PLANNING AND NUTRITION	5	1	0	1	1	0	1	1
CLN ART	125	BREAKFAST AND LUNCH COOKERY	7	1	0	1	1	0	1	\$0
CLN ART	126	BAKING SKILLS	5	0	0	0	0	0	0	
CLN ART	133	ADVANCE GARDE MANGER	7	0	0	0	0	0	0	
CLN ART	134	CLASSIC AND CONTEMPORARY CUISINE	7	0	0	0	0	0	0	
CLN ART	135	DINING ROOM AND BEVERAGE MANAGEMENT	7	1	1	0	1	1	0	
CLN ART	136	RESTAURANT MANAGEMENT	5	1	1	0	1	1	0	

Discipline: Environmental Science		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	0	
Resulting # of sections to be assigned permanent staff per semester*	0	\$0
Reassigned time per semester (in section equivalents)	0	(0x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	0	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
ENV SCI	1	THE HUMAN ENVIRONMENT: PHYSICAL PROCESSES	3	1	1	0	1	1	0	
ENV SCI	2	THE HUMAN ENVIRONMENT: BIOLOGICAL PROCESSES	3	1	0	1	1	0	1	1

Discipline: Family & Consumer Studies		Approx. Yearly Cost (2015-16)
--	--	--------------------------------------

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	-------------------------	--	--

Disciplines Core Personnel/Permanent Staff	0	
Resulting # of sections to be assigned permanent staff per semester*	0	\$0
Reassigned time per semester (in section equivalents)	0	(0x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	0	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
FAM & CS	21	NUTRITION	3	2	1	1	2	1	1	

Discipline: Geography		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	1	
Resulting # of sections to be assigned permanent staff per semester*	5	\$100,000
Reassigned time per semester (in section equivalents)	0	(1x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	5	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
GEOG	1	PHYSICAL GEOGRAPHY	3	2	2	0	2	2	0	
GEOG	2	CULTURAL ELEMENTS OF GEOGRAPHY	3	0	0	0	0	0	0	
GEOG	7	WORLD REGIONAL GEOGRAPHY	3	1	1	0	1	1	0	\$20,000
GEOG	15	PHYSICAL GEOGRAPHY LABORATORY	3	1	1	0	1	0	1	1

Discipline: Geology		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	0	
Resulting # of sections to be assigned permanent staff per semester*	0	\$0
Reassigned time per semester (in section equivalents)	0	(0x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	0	per sem.)


Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
GEOLOGY	1	PHYSICAL GEOLOGY	3	1	1	0	1	1	0	
GEOLOGY	6	PHYSICAL GEOLOGY LABORATORY	3	1	0	1	1	0	1	1

Discipline: Microbiology		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	1	
Resulting # of sections to be assigned permanent staff per semester*	5	\$100,000
Reassigned time per semester (in section equivalents)	0	(1x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	5	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
MICRO	20	GENERAL MICROBIOLOGY	6	1	0	1	1	0	1	\$0
MICRO	20 L	GENERAL MICROBIOLOGY -L	1		4	4	0	4	4	\$80,000
MICRO	20 U	GENERAL MICROBIOLOGY -U	3		2	2	0	2	2	\$40,000
MICRO	40	MICROBIOLOGY LABORATORY PREPARATIONS	3	2	1	1	2	1	1	0

Discipline: Oceanography		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	1	
Resulting # of sections to be assigned permanent staff per semester*	5	\$100,000
Reassigned time per semester (in section equivalents)	0	(1x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	5	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
------------	----------	--------	-------	---------------------------	--	---	------------------------------	--	---	-------------------------------


	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker

OCEANO	1	INTRODUCTION TO OCEANOGRAPHY	3	1	3	1	0	3	1	0		
OCEANO	10	PHYSICAL OCEANOGRAPHY LABORATORY	3	1	1	1	0	1	1	0		
OCEANO	12	LECTURES IN MARINE BIOLOGY	3	2	0	1	0	0	1	0		

Discipline: Physiology		Approx. Yearly Cost (2015-16)
Disciplines Core Personnel/Permanent Staff	0	
Resulting # of sections to be assigned permanent staff per semester*	0	\$0
Reassigned time per semester (in section equivalents)	0	(0x5@\$10,000
Remaining sections to be assigned permanent staff per semester*	0	per sem.)

Discipline	Course #	Course	Units	Fall 14 sections offered:	Fall sections assigned to permanent staff:	Remaining fall sections for listing in "C" & "D":	Spring 2015 sections offered	Spring sections assigned to permanent staff:	Remaining spring sections for listing in "C" & "D":	Approx. Yearly Cost (2015-16)
PHYSIOL	001L	INTRODUCTION TO HUMAN PHYSIOLOGY	3	2	2	0	2	2	0	
PHYSIOL	001U	INTRODUCTION TO HUMAN PHYSIOLOGY	3	0	0	0	1	1	0	

New facilities funded from Program 100 essential for the delivery of sections taught by permanent staff	\$0
None listed	
New equipment funded from Program 100 essential for the delivery of sections taught by permanent staff	\$61,159.74
None listed	
Supplies funded from Program 100 essential for the delivery of sections taught by permanent staff	\$18,958.44
None listed	


	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	--------------------------------	---	---

Unit Plan “Part C”

Offerings denoted as “C” above: that is, offerings mandated by law or other binding requirements per semester but not assigned to division permanent staff because no regular instructor is technically eligible for the assignment.

Discipline	Course #	Course	Units	Fall 1 sections offered:	Spring 2015 sections offered	Approx. Yearly Cost (2015-16)
		None listed as 'C' above				

New facilities funded from Program 100 essential for the delivery of sections taught by permanent staff	\$0
None listed	
New equipment funded from Program 100 essential for the delivery of sections taught by permanent staff	\$0
None listed	
Supplies funded from Program 100 essential for the delivery of sections taught by permanent staff	\$0
None listed	

	ACADEMIC YR: 2015-16	DIVISION/AREA: Science/Family & Consumer Studies	DIVISION CHAIR/DIRECTOR: Joyce Parker
---	--------------------------------	---	---

Unit Plan “Part D”

Offerings denoted as 'D' in Part B along with essential non-instructional assignments and new equipment or supplies not provided for above, prioritized by the division as provided for here offerings denoted as 'D' in Part B.

Number of Items	Approx. Yearly Cost (2014-15)
23	\$115,000 (23@\$5,000 including supplies est. per sem.)

Activity/Item Listings include all “Other Essential Activities” from each unit plan, along with currently unfunded ‘Core’ activities/items						Approx. Yearly Cost (2014-15)	Division priority	Rationale/ Supporting Information	2012 – 13 Educational Master Plan Master	Supported by Data/SLOs	Program Review Recommendations	TOTAL
Microscope maintenance						\$4,000	1	Program 100				
conference attendance						\$9,000	2	CTE/Perkins/ Professional Development funding				
tutor/student assistant						\$8,500	1	CTE/Perkins funding				
tutor/student assistants (Culinary Arts)						\$10,000	1	Financial Aid funding				
audio-visual enhancement						\$1,500	3	CDTC Grant/Perkins funding				
Planned “D” offerings carried over electronically from Part B as noted there accordingly.												
Discipline	Course #	Course	Units	Fall 14 sections offered:	Spring 2015 sections offered							
ANATOMY	1	INTRODUCTION TO HUMAN ANATOMY	6	1	1	\$10,000						
BIOLOGY	33	MEDICAL TERMINOLOGY	3	1	1	\$10,000						
CH DEV	10	HEALTH, SAFETY AND NUTRITION	3	1	1	\$10,000						
CH DEV	12	PARENT-TEACHER-CHILD INTERACTION	3	1	1	\$10,000						
CH DEV	42	THE CHILD IN A DIVERSE SOCIETY	3	1	1	\$10,000						
CH DEV	185	DIRECTED STUDY - CHILD DEVELOPMENT	1	1	1	\$10,000						
COMM STUDIES	101	ORAL COMMUNICATION I	3	5	5	\$50,000						
COMM STUDIES	104	ARGUMENTATION	3	1	1	\$10,000						
COMM STUDIES	111	VOICE AND ARTICULATION	3	1	1	\$10,000						
COMM STUDIES	121	THE PROCESS OF INTERPERSONAL COMMUNICATION	3	1	1	\$10,000						
COMM STUDIES	122	COMMUNICATION ACROSS CULTURES	3	1	1	\$10,000						
COMM STUDIES	190	COMMUNICATION AND NEW MEDIA	3	1	1	\$10,000						
CLN ART	123	CULINARY SKILLS II	7	1	1	\$10,000						



ACADEMIC YR:
2015-16

DIVISION/AREA:
Science/Family &
Consumer Studies

DIVISION CHAIR/DIRECTOR:
Joyce Parker

CLN ART	124	MENU PLANNING AND NUTRITION	5	1	1	\$10,000						
CLN ART	125	BREAKFAST AND LUNCH COOKERY	7	1	1	\$10,000						
ENV SCI	2	THE HUMAN ENVIRONMENT: BIOLOGICAL PROCESSES	3	1	1	\$10,000						
FAM & CS	21	NUTRITION	3	1	1	\$10,000						
GEOG	15	PHYSICAL GEOGRAPHY LABORATORY	3	0	0	\$000						
GEOLOGY	6	PHYSICAL GEOLOGY LABORATORY	3	1	1	\$10,000						
MICRO	20	GENERAL MICROBIOLOGY	6	1	1	\$10,000						