

# GEOGRAPHY PROGRAM REVIEW SELF-STUDY

FALL 2014



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## GEOGRAPHY PROGRAM SELF-STUDY FALL 2014

### *1.1 Introduction.*

Solano Community College began offering an Associate in Arts for Transfer (AA-T) degree in Geography during the fall semester of 2014. Hence, the program is a new one and therefore, an established group of students is not developed yet and there is a lack of historical data for comparison.

The Program Description as stated in the 2014-2015 catalogue reads as follows:

*Solano Community College offers an Associate in Arts for Transfer degree in Geography to introduce students to principles, theory, and applied methods of spatial analysis in studying both the natural and human environment. The degree provides students with a foundation in the knowledge and skills of the Geography profession and prepares them for upper division university course work. Recipients of the Associate in Arts for Transfer degree are guaranteed admission with junior standing at a campus of the California State University system. The program in Geography is designed to develop the student's awareness of human environment relationships and changes in the physical and cultural landscape induced by human activities.*

Before 2001, Don Kiernan was the full-time Geography Instructor. He retired in 2001 and the Geography position was lost to a state budget crisis. From 2001 to 2004, Solano did not have a full-time Geography Instructor. During this time, Mark Feighner (Geology and Physics faculty) developed the GEOG 010 Geographical Information Systems (GIS) course and taught it until 2011. George Daugavietis (Full-time Math and part-time Geography faculty) also has a degree in Geography. For many years, George taught the Geography social science courses such as Cultural Geography (GEOG 002) and World Geography (GEOG 004). He taught the courses as an overload to his Math contract. GEOG 002 was taught during the spring semesters and GEOG 004 during the fall semesters. He also proposed the California Geography course (GEOG 006) class in 2011 but the course has not been taught due to low enrollment. George retired from full-time Math teaching in 2012 but continued teaching Geography part-time. He does not plan to teach the courses again after fall 2014.

In 2004, a full-time Instructor, Danielle Widemann, was hired to teach half-time Physical Geography and half-time Geology. The Physical Geography courses grew in demand and re-established a critical course option needed for the Physical Science General Education requirements and more. She has taught the course both in-person and online since 2004. The demand for Physical Geography lecture created a need for the Physical Geography Lab. One, and sometimes two, Geography Labs are offered each semester and continue to help the students reach their goals at Solano College. The Physical and Social Science Geography courses combined with the GIS courses created the demand for a Geography Program.

The following lists the faculty currently teaching Geography. Every instructor teaches at a part-time capacity and there still remains no 100% full-time Geography Faculty Instructor. Also listed are faculty in related fields with courses that help to complete the Geography AA Transfer degree:

#### **Geography Required Core Courses and the List A & B Course Selections:**

- Danielle Widemann teaches Physical Geography Lecture (GEOG 001), Physical Geography Lab (GEOG 001L), and Physical Geology (GEOL 001) and Physical Geology Lab (GEOL 002)

- George Daugavietis has taught Cultural Geography (GEOG 002), World Geography (GEOG 004), and proposed California Geography (GEOG 006) which was offered again in spring 2015 but was cancelled again due to low enrollment.
  - George has recently retired and does not plan to teach part-time Geography after Fall 2014
  - A part-time Geography Instructor, John “Jack” Knettle, has been offered the social science courses for Spring 2015
- Mark Feighner has taught GEOG 010 (GIS) and teaches Physical Geology (GEOL 001) and Physical Geology Lab (GEOL 002)
- Joanne Strickland teaches Geographic Information Systems (GEOG 010) as of Fall semester 2014
- Lauren Cross and Steve Gravely teach Cultural Anthropology (ANTH 002)

***1.2 Relationship to College Mission and Strategic Goals.***

The Geography Program Learning Outcomes (PLO) correlate well with the College’s Missions as stated and the Institutional Learning Outcomes (ILO) outlined below and in Table 1.

The Geography PLO:

- 1) Use maps and other appropriate geographic tools to interpret and analyze spatial data
- 2) Explain the impact of humans on the natural environment
- 3) Identify major worldwide spatial political, cultural, economic, and environmental patterns

Table 1. SCC’s Strategic Directions and Goals

<b>Goal 1: Foster Excellence in Learning</b>	<b>Program Evidence</b>
Obj. 1.1 Create an environment that is conducive to student learning.	The Geography Program courses take pride in our dynamic learning environments. Geography lends itself to an interactive learning style with constant use of thematic maps surrounding the learning environment. In addition, students learn through group discussions and various other methods of solo and team work. The courses maintain constant evaluation with Student Learning Outcomes (SLO).
Obj. 1.2 Create an environment that supports quality teaching.	The subject of Geography naturally overlaps with other disciplines to allow instructors of the courses to implement all styles of quality teaching. Students can learn through all of their senses allowing Instructors to teach with diverse teaching and learning styles for all types of learners. The SLO findings help to constantly evaluate and further develop high quality teaching methods.

<p>Obj. 1.3 Optimize student performance on Institutional Core Competencies</p>	<p>Critical Thinking and Information Competency fall right in line with the goals of the Geography Program. Students in the program will practice problem solving while learning important information for all citizens of the global world. As outlined above, the PLO goals follow perfectly with the Institution’s Learning Outcomes (ILO).</p>
<p><b>Goal 2: Maximize Student Access &amp; Success</b>      Program Evidence</p>	
<p>Obj. 2.1 Identify and provide appropriate support for underprepared students</p>	<p>Solano College has an ever-growing Academic Success Center (ASC) and Basic Skills Development Workshops. Students are encouraged to attend the workshops such as, Time Management and How to Study “Smart” to develop learning skills while learning the material. We not only teach the material but we also teach how to learn it! In addition, the college has free tutoring, testing centers, and support from the Counselors in all of the possibilities from Academia to Disabilities and to Veterans. We also have the great support of programs such as MESA, Umoja, Puente, and First-Year experience designed to support our community.</p> <p>Both online and in-person Geography students are also supported with Canvas, the online platform contracted by Solano. Canvas allows students to get more regular feedback from their professor and reach out to one another too. In addition, contains Pages and Files where video clips can be stored and other critical files for students. The video clips are especially important because the technology allows a student to watch, listen, pause, and write out new concepts in their own voice for a deeper understanding of the material.</p>
<p>Obj. 2.2 Update and strengthen career/technical curricula</p>	<p>The Geography Program includes the GIS courses. While the courses are academic electives, they also increase a student’s marketability. Students with a GIS background can succeed in career and technical fields while moving toward their academic goals. GIS gives a student immediate skills for immediate career development while possibly funding their education.</p>

<p>Obj. 2.3 Identify and provide appropriate support for transfer students</p>	<p>The Geography Program courses are UC and CSU Transferrable and complete General Education requirements. Approximately three-fourths of our students take our courses in order to continue on to a 4-year institution.</p>
<p>Obj. 2.4 Improve student access to college facilities and services to students</p>	<p>The Instructors of the courses meeting the Program requirements reach out to students, along with the College, to inform them of upcoming workshops, scholarships, and many other useful events on the campus.</p>
<p>Obj. 2.5 Develop and implement an effective Enrollment Management Plan</p>	<p>The instructors of the Geography Program courses work together to ensure no overlap in scheduling. Along with a varying in-person course schedule, they also work together to support students with online and hybrid courses.</p>
<p><b>Goal 3: Strengthen Community Connections</b></p> <p>Program Evidence</p>	
<p>Obj. 3.1 Respond to community needs</p>	<p>All communities are in desperate need for Geographical information from local topics to world-wide ones. In addition, Solano County has a large population of first-generation college students along with a majority of middle to low income households. The Community College is the only choice for many of the people of Solano County.</p>
<p>Obj. 3.2 Expand ties to the community</p>	<p>Past students have volunteered time to teach elementary school groups. Students from the Physical Geography courses have also been volunteers at the Inventor's Lab which is an outreach science program from Berkeley's Lawrence Hall of Science. The GIS courses connect students with community groups as an attempt to collect data and possibly connect with the community for internships.</p>

Goal 4: Optimize Resources	Program Evidence
Obj. 4.1 Develop and manage resources to support institutional effectiveness	Resources at the College include funds for teaching supplies that support the continued effectiveness.
Obj. 4.2 Maximize organization efficiency and effectiveness	This Geography Program Self Study ensures a connection the College's missions and goals compared to the ILO. The constant check and re-check brings efficiency and effectiveness to the college as a group that works together moving toward complementary goals.
Obj. 4.3 Maintain up-to-date technology to support the curriculum and business functions.	As this period of Globalization and the internet continue to evolve so does the need for funds to update technology and resources. The courses have to maintain current technology to continue the high quality of education. The data collected for SLO and PLO reports help to maintain a strong business in a time of constant change. The Geography Program instructors are committed to the program, college, and the students from all aspects.

### ***1.3 Enrollment.***

The Geography Program is a new one as of the fall semester of 2014. Geography covers both the Physical and Social Sciences. Hence, the program must be studied for patterns with the appropriate subdivisions: GEOG 001 is the Physical Science Lecture, GEOG 001L is the Physical Science Lab. GEO 002, 004, and 006 meet Social Science requirements. GEOG 010 is an elective.

The current number of degree seekers in the Geography Program is unknown as it is a new program. At this point, we believe there to be between 4 and 8 students moving to the Geography transfer degree. Therefore, the number of majors in the program's infancy is insignificant relative to the College population. While it would be interesting to see how the Geography Program students do compared to the average Solano Student, it would not be applicable to increasing enrollments and students success rates due to an overgeneralized average Solano student. Solano College students come from many different backgrounds and with many different purposes and goals leading to an inability to come up with an accurate average student for comparison. However, the diverse reasons for attending Solano College create the magnificence of Solano College and the invaluable nature of California's Community College system.

## Geography as a Physical Science

The Table below breaks down the trends in the Physical Geography 3 unit lecture course over the past 4 years. The original data can be found in Addendum A, Enrollment Data.

GEOG 001 (3 Unit Course) Enrollment & FTES for the Last Four Years (One Summer Missing)													
Semester and Year:	Fall 2010	Spring 2011	Summer 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Summer 2013	Fall 2013	Spring 2014	Summer 2014	Averages	
Section Counts	4	4	2	4	4	4	4	2	3	4	2	9	Sections Offered per Year
Head Counts	104	114	57	119	130	123	119	70	94	103	65	275	Students per Year
Head Count/sections	26	29	29	30	33	31	30	35	31	26	33	30	# of students per Course
FTES	10.4	11.4	5.7	11.9	12.9	12.2	11.8	7.0	9.4	10.3	6.5	Headcount Average/3 Unit Course	
FTES Average for Fall Semesters	11.0											29	FALL
FTES Average for Spring Semesters	11.6											29	SPRING
FTES Average for Summer Semesters	6.4											32	SUMMER
FTES Avevrage per Year (No Summer)	11.3							"33-35 Students per 3 unit course required for the 'Break-Even' Point"					

Nine (9) Physical Geography (GEOG 001) courses are offered per year on average. The number of courses per academic year shows one less than the goal of 10 courses per year. The reason for the one difference is due to the following: one summer of classes were canceled across the campus making 2 classes lost and one course was canceled during fall 2013 due to low enrollment. While Physical Geography has 40 maximum students per course, the typical number of students per course ends up being 29 after census. The courses tend to begin with a number close to 40 +/- 3 students. Ending the semester with 29 students is typical and slightly below the College goal of 33-35 students per 3 unit course. The summer courses tend to be slightly higher with 32 students per 3 unit section which almost meets the “Break-Even Point.” The overall trend shows a slight increase of about 1 or 2 students per course with the exception of the spring 2014 semester.

The Physical Geography Lab (GEOG 001L) is a 1 unit Lab course that completes the science with a lab general education requirement. Historically, the lab was not offered before 2008. I am



not sure how the FTES relates to lab courses nor the required numbers to “break even.” Overall, the Lab enrollment has been increasing by 2 or 3 students per semester until we tried to offer 2 labs in one semester. It led to lower overall enrollment per course. The Monday evening lab tends to fill while the Thursday morning lab course tends to have low enrollment. Hence, we have stopped offering the morning lab time. In general, we plan to offer one lab per semester and maybe one in the summer to complement the 4 sections of Physical Geography lecture offered every semester.

The Physical Science Geography was doing well with enrollments increasing compared to the previous decades of extremely low enrollments and success rates prior to 2004. However, we had a devastating issue due to the grade inflation and over adding of students by another Physical Science set of courses. There is ample data to show the correlation with extreme grade inflation and the decrease in Physical Geography enrollment. Overall, the Physical Sciences suffered from lower enrollment due to one set of Physical Science courses dominating the enrollment patterns.

### Geography as a Social Science

The table below evaluates the Enrollment and FTES data for the Social Science Geography courses.

GEOG 002 & 004 (3 Unit Social Science Courses) Enrollment & FTES for the Last Four Years											
Semester and Year:		Fall 2010	Spring 2011	Fall 2011	Spring 2012	Fall 2012	Spring 2013	Fall 2013	Spring 2014	Averages	
Section Counts	GEOG 002	1			1		1		1	1	Sections Offered per Year
	GEOG 004	1	1	1				1		1	
Head Counts	GEOG 002	34			35		18		7	94	Students per Year
	GEOG 004	35	32	37				17		121	
Head Count/sections	GEOG 002	34			35		18		7	24	# of students per Course
	GEOG 004	35	32	37				17		30	
FTES	GEOG 002	3.4			3.5		1.8		0.7	2.4	Average FTES
	GEOG 004	3.5	3.2	3.7				1.7		3.0	

Historically, GEOG 002 and GEOG 004 are offered every other semester. The trend shows the numbers decreasing drastically from fall 2010 to spring 2014. The numbers went from surpassing and/or meeting the “break-even point” to almost half of the required enrollment numbers. It is believed the data shows a decrease in enrollment due to location changes. The course was more successful at the Main Campus but has shown much less enrollment success since moving to the Vacaville Campus. Hence, we have moved the courses back to the Main Campus. See Addendum A, Enrollment Data, for the original data collected by Solano College’s Research Group, Peter Cammish and Pei-Lin Van’t Hul.

### *1.4 Population Served.*

The data shows a roughly even distribution of males and females with the exception of summer. The summer sessions show slightly more females than males. The majority of the students (~75%) range in age from the 18-25 years old and fall under the Continuing Students category. The largest student ethnicity pattern shows an average of 36% of the students reporting to be in the White-Non-Hispanic category. Outside of the American Indian or Alaskan Native category, the other categories are evenly distributed. See Addendum A, Enrollment Data, for the original information collected. The original data again can be reviewed in Addendum A, Enrollment Data, collected by Solano College's Research Group, Peter Cammish and Pei-Lin Van't Hul.

### *1.5 Status of Progress toward Goals and Recommendations.*

The most recent plan identified is the May 2012 Educational Master Plan located at the following link:

[http://www.solano.edu/district\\_plans/1213/Solano\\_EMP\\_Revised\\_Draft\\_052312\\_reduced2.pdf](http://www.solano.edu/district_plans/1213/Solano_EMP_Revised_Draft_052312_reduced2.pdf)

The Plan lists 5 Strategies for the Geography Program outlined in Table 2 below.

Table 2. Educational Master Plan

Educational Master Plan	Status
1. Develop GIS certificate program	GIS Enrollment does not currently show the demand for a certificate program at this time.
2. Expand courses offerings in Geography (GIS)	No expansion at this time
3. Work with related programs to develop curriculum and meet certificate requirements	The Geography AA – transfer certificate is in-place as of Fall 2014.
4. Hire Full-time Geography/GIS instructor	A full-time Geography/GIS Instructor has still not been hired nor advertised or interviewed. The position has made it to the top 5 positions to hire at the College a few times. However, it never made it to the final cut once at the Administration level for advertisement and hiring.
5. Improve laboratory space, including the prep and storage area	The laboratory space has not improved. It is completely unhygienic. The storage space could be utilized better with a remodel of the classroom/laboratory.

The “Rationale” for the strategies is outlined as the following according to the same document:

*High growth in enrollment and FTES suggests the potential for program expansion. The development of a formal GIS certification or degree program could meet the projected growth in the GIS industry and support continued growth in enrollment and FTES.*

As of fall semester 2014, the demand for a GIS certificate has been influenced by a hiatus in course offerings due to instructor illness. However, we have since hired an Adjunct who has been teaching the course successfully. We hope to see stability in the course offerings and enrollment with the part-time hire. The new transfer AA degree may contribute to increased enrollment, success rates, and retention. We have also hired an Adjunct Instructor for the GEOG 002, 004, and 006 courses as a retirement and location of the course offerings has led to a temporary decrease in enrollment. We should see an increase in enrollment over the next few years if we can keep the course offerings.

Table 3. Program Review Recommendations

Program Review Recommendations (Previous Cycle)	Status
1. Continue to move toward the goal of a GIS certificate if the need proves to be there over the next couple of semesters.	Reassess the status of the enrollment after 2 semesters with the Adjunct to see if the demand for more Geography and GIS courses increases once again.
2. Potentially hire a full-time Geography Instructor to teach all of the Geography courses.	Currently we have all part-time instructors teaching the Geography courses. A 100% full-time Geography Instructor allows a leader to be more coherent in the goals of the Program.
3. Send out the Survey via each course and Instructor to get more feedback from students.	The Survey was previously sent out as an electronic link from the College’s Research and Development group. The number of student surveys submitted was inadequate for learning. We will have the Instructors directly give the students the surveys on paper or emailed out to their students with the hopes of getting sufficient data to analyze results.
4. Remodel the Laboratory	Measure G funds led to little significant changes in the laboratory/classroom. The changes were cosmetic. The laboratory needs to be completely remodeled including demolition and new storage with the instructors input.

### 1.6 Future Outlook.

The field of Geography has an increasing demand for all positions from Meteorology to Urban Planners to GIS Technicians and Cartographers. Geographers work intimately with remotely sensed images which have become increasingly more important through time with the increase in technology. Addendum B, Future Outlook, outlines some of the more common careers as Geographers.

## CURRICULUM DEVELOPMENT, ASSESSMENT, AND OUTCOMES

2.1 The Geography PLO and the connection to the ILO Core Competencies are detailed in Table 4 below. The students completing the program receive AA Transfer Degree with scores for the courses at minimum of 70% for A, B, or C grades in all of courses completing the degree. See the Addendum to Table 4 for Solano Community College's ILO Core Competencies.

Table 4. Program Level Outcomes

Program Level Outcomes	ILO (Core 4)	How PLO is assessed
1. Use maps and other appropriate geographic tools to interpret and analyze spatial data	II.A, B, and C	Scores of 70% or higher in the courses required for the degree
2. Explain the impact of humans on the natural environment	I.A-D	Scores of 70% or higher in the courses required for the degree
3. Identify major worldwide spatial political, cultural, economic, and environmental patterns	III. A and B	Scores of 70% or higher in the courses required for the degree

2.2 The courses for the Geography Program AA Transfer degree can be compared specifically to the particular PLO and the level expected in Table 5 below. Generally, the courses meet an Introductory (I) or Developing (D) level as a Transfer degree. Only the GIS course leaves the student with a Mastered (M) knowledge of the field assuming the student completed the GIS course based on the completion of the other Geography Program courses. A students completing the Geography AA-T degree advances with a solid foundation for the transferring major.

Table 5. Program Courses and Program Level Outcomes

COURSES	PLO 1	PLO 2	PLO 3
	Use maps and other appropriate geographic tools to interpret and analyze spatial data	Explain the impact of humans on the natural environment	Identify major worldwide spatial political, cultural, economic, and environmental patterns
Required			
GEOG 001	I	I	
GEOG 001L	D	I	
GEOG 002	I	I	I
List A			
GEOG 004	D	D	D
GEOG 006	D	D	D
GEOG 010	M		
List B			
GEOL 001	D	D	
ANTH 002	D	D	

**2.3** Program Level Assessments are not applicable at this point in the Geography Program Review. This Fall 2014 Program Review initiates the baseline for the new program which began with students officially as of this same semester of fall 2014. We are in the beginning stages of identifying students moving toward the degree.

*Table below to be filled out in future reviews*

Table 6. Program Level Assessments

Program Level Outcomes	Date(s) Assessed	Results	Action Plan
1. Use maps and other appropriate geographic tools to interpret and analyze spatial data	NA	NA	NA
2. Explain the impact of humans on the natural environment			
3. Identify major worldwide spatial political, cultural, economic, and environmental patterns			

**2.4** Describe any changes made to the program or courses that were a direct result of program level assessments.

Not Applicable at this time.

**2.5** Student Learning Outcomes

The Student Learning Outcomes (SLO) for each course are evaluated on a yearly basis. While SLO have been consistently evaluated over the past several years, this report is the first to ensure the courses complement one another toward the same program goals. As we develop and strengthen the Geography Program, the courses should develop an interwoven GIS lesson. All of the Geography Program courses, are taught in-person only with the exception of GEOG 001 and GEOL 001 which are also taught Online. The Online courses have the same material covered as the in-person courses as required. In addition, the online courses require an in-person Final Exam that is the same one as the in-person students’ final exam. The Final Exam is a large percentage of the grade in the courses with the goal of making the courses comparable quality and requirements along with the equivalent knowledge obtained by the students whether online or in-

person. In addition, the SLO compare the learning occurring between online and in-person students.

**2.6** At this point in the Review, we have a need to gel the courses in the Program such that they meet the desired outcomes even better and complement one another. The courses naturally connect based on their information. However, with a Geography Program in place, we could meet and clarify the goals of each course as it relates to the PLO. All of the Instructors of the courses are currently part-time toward the Geography Program and hence, the instructors have been somewhat isolated from one another previously.

**2.7** No changes have been made to the Geography Program based on SLO results due to the program being in the beginning stages. As of Fall 2014, the SLO and the PLO follow each other well. As we learn from future SLO and PLO assessments, we may have more outcome correlations to evolve the program and course outlines. The SLO have led to changes in how certain material within the courses are taught and graded. For example, one SLO found that the students needed a deeper understanding of description and interpretation with thematic maps. Hence, the instructor now spends more time with different methods to teach the skill. In addition, the written report has a well outlined rubric for students to be sure to cover all of the required material for the assignment. The SLO have helped to increase success rates.

### Curricular Offerings

#### **2.8 Course offerings.**

The Geography Program has been established as an AA Transfer degree as of fall semester 2014. The courses completing the program have been taught intermittingly at the Centers without the same success as the Main Campus. Hence, we have moved the courses back to just the Main Campus to support enrollment. The link below also takes you to the description of the courses as presented in the catalogue.

<http://www.solano.edu/catalog/1415/section4.pdf>

#### **2.9 Fill rates/Class size.**

The courses within the Physical Science side of Geography had great increases in enrollment over the last decade. The enrollment numbers began to decrease with changes made to another set of Physical Science courses. The impacting other courses changed the course maximum to 50 students and was adding students beyond that number. Unfortunately the issue was not discovered until after several years of damage. The Dean of the Division was made aware of the situation and worked toward resolving it. The Instructor has since retired but the Adjunct teaching the courses continues in the same path. An unofficial agreement was created between the Physical Science courses to wait until the Physical Geography and Geology courses have filled before adding beyond the maximum. The agreement was made during a previous Dean's service. Henceforth, the agreement has not been maintained. The Social Science courses within the Geography Program have had a fairly consistent enrollment trend when the courses are offered at the Main Campus. As the Geography Program develops and markets itself though the community, we expect the enrollment in both the Physical and Social Science Geography Program courses to increase. We also hope to hire a full-time Instructor to teach the Social Science Geography courses not only in-person but also online due to the ever-growing demand for online courses.

### **2.10 Course sequencing.**

The Geography Program courses complement and naturally overlap each other well. One does not need to complete the courses in sequential order with the exception of the Physical Geography Lab. The Lab can be completed concurrently with the lecture or after success, a C grade or higher, in the Physical Geography lecture course. The overlap of the courses excites the Geography student and creates a natural link to the next course. The automatic connection and step leading to the next course innately deepens the learning for the student. For example, as a student learns the Physical Geography patterns of the world, they eventually lead to an understanding of how and why a particular culture developed in that particular physiography.

### **2.11 Basic Skills**

With the exception of the Physical Geography Lab, none of the courses have prerequisites. While many students are prepared for the University level courses, many still have not developed the skills to be successful in the courses. Since we do not have any prerequisites, the Instructor is left to not just teach the material but also teach how to learn the material. SCC has developed the beginning stages of a successful Academic Success Center which has workshops related to Time Management and Study Skills. The main Physical Geography Instructor has developed strong and successful workshops related to Basic Skills. It is expected that the Geography Program students will have the support for further developing their Basic Skills through the workshops. The current Basic Skills workshops range for *Time Management: A Game Plan for Success!* to workshops such as, *How to Study "Smart" to Test Anxiety to Note Taking* and more! Please see Addendum C for examples of the materials from the Basic Skills workshops.

The Physical Geography Instructor, Danielle Widemann, has completed On Course Workshops I and II. On Course has proven to support students with Basic Skills with great success across the country. We hope to create and expand an On Course program connected to the Academic Success Center and Basic Skills growing currently on the SCC's campus. The following link provides the background and data related to On Course:

<http://oncourseworkshop.com/>

### **2.12 Student Survey.**

The first attempt to generate data from the newly created student Geography Program Survey did not lead to sufficient response during the spring 2013 semester. The survey was sent out electronically to all students enrolled in the geography courses. We believe the lack of responses, less than 25 out of approximately 220 students, was due to the purely electronic and optional nature of the survey. The surveys will be sent out this semester via each course's Instructor during the in-person course meetings and the online students' in-person final exam to ensure ample surveys collected for the generation of useful data. We will report on the survey success after the next attempt for responses. See Addendum D for the current Geography Program Survey and the results of the electronic attempt.

### **2.13 Four-year articulation**

All of the Geography Program courses articulate to both the UC and CSU system as either a Social Science or Physical Science General Education course. The GIS courses transfer as electives.

### **2.14 High school articulation**

All of the courses within the program articulate as UC and CSU courses and, hence, articulate with High Schools in the county also.



### *2.15 Distance Education*

Currently, the following courses are taught as either online or hybrid courses:

- GEOG 001
- GEOL 001
- GEOG 010

They make up less than 25% of the offered courses for the Program. An Instructor is not allowed to teach beyond 60% of their contract as online courses. Hence, we are limited as to the number of courses that can be offered Online or as Hybrids.

The Online courses are required to cover the same material as covered in the In-Person courses and held to the same University-level quality of testing and written work. In addition, the online students are required to come to the campus to complete the same in-person, closed book Final Exam as the in-person students complete.

As we further develop the young Geography Program, we will look to offering some of our Social Science Geography and Anthropology courses online also. We recently hired two new adjuncts to teach the Social Science courses and the GIS course. They will be taught in-person to begin with and potentially also be taught online in the near future. If the courses prove successful in-person, we can approach the Instructor with the possibility of teaching the courses online too. However, since we are all part-time instructors in the program, we are limited to the number of courses than can be taught whether in-person or online.

## STUDENT EQUITY & SUCCESS

### *3.1 Course Completion and Retention.*

All of the instructors in Geography teach with enthusiasm and practice all styles of teaching for different types of learners. We pride ourselves in constantly evaluating new styles of teaching. Currently, we practice an interactive learning environment. In the Physical Geography courses, the Instructor has been trained and uses On Course as explained in the Basic Skills section of this report.

We also work with the campus Academic Success Center and the Basic Skills program to support our students. The College also supports our students with free tutoring. The Disability Services Program (DSP) also provides our DSP students with many types of support such as the following:

- Testing Centers
- Extra time on Exams
- Visualization and Audio Amendments
- One-on-one Counseling
- And more!

We continue to search for more ways to support our students and improve the academic success of each student.

The data collected and analyzed by the College's Institution of Research and Planning can be found in Addendum A, Enrollment Data, specifically in the section entitled "Course Completion and Retention." Please note the summer and fall semesters of 2014 have columns with information but it has not been updated as of the time of this report.

The data shows the results of all of the Geography courses combined and not separated out by Physical and Social Science courses. The average success rates show a consistent trend from 66% to 70% over the past 4 years. Approximately one-third of the students in the courses are considered unsuccessful meaning a grade below a C or “W” for Withdrawal from the course. The Percentage Grade Distribution shows approximately half of the unsuccessful students were categorized so due to taking a W and the other half for receiving a failing grade. The W can be taken by a student for many reasons such as, an emergency in the family or just plain realizing the student may have taken too large of a load of courses for success. It is an excellent way for a student to protect their grade point average if the course was going in an undesirable direction. As far as the W being included in the success rate, it needs to be separated out from the students who did not pass the course but continued to take it. About half of the unsuccessful students receive a D or F grade for a total class percentage of about 15-20%. The percentage is considered low to average for UC Transferrable courses. In many cases, the unsuccessful student due to a failing grade is simply due to a sudden halt in coursework and not for continued attempts and still failure. This situation is more common in the online courses than the in-person courses. A student just stops coming to class but cannot be dropped by the Instructor at that point anymore. There can be many reasons for a student to stop participating in a course from personal reasons to “cutting their losses” and focusing on their other courses. In cases of personal emergencies, the College can override the grade and remove the course from their record. Students know this method and it is sometimes abused. Overall, the success rates remain consistent and follow a healthy pattern for university level courses.

The summer success rates show lower averages in general. The summer courses are intense due to the time constraints. In general, the Geography summer courses are taught in 8-weeks instead of the usual 16-weeks. This fact may contribute to the lower rates of success. The In-Person students show slightly higher success rates than the online students. The In-Person students receive more one-on-one time with their instructors since they see them weekly. With the increased technology support, we may see more teaching via video clips and increase in online student success.

The student population is dominated by continuing students between the ages of 18-25 years old, as explained in the enrollments section. There is not a gender-specific pattern. The courses show about equal percentages of males and females and equal success rates. The White-Non Hispanic populations does show consistent success. The Asian or Pacific Islander population shows above average success rates. Unfortunately, the Black and Hispanic populations show consistent success rates below the average. Again, Addendum A, Enrollment data, has the original data collected for analysis here. Many reasons can be suggested for the historically less success academically in the Black and Hispanic populations. Solano College as a whole recognizes the need for more support. In recent years, the Umoja Program has been developed strong support for our Black student population. The Puente and Sol Programs have connected the Hispanic student population. The Academic Success Center did an Open Forum with student panels and found that the students want to feel more connected to the College and each other. Overall, the College and the Geography Program strive to support all of our students. The On Course Program, mentioned in above, has the data to support increased success and retention rates. With resources put into Instructor On Course training and support, we would like to see a strong On Course Program developed on the campus and soon.

In summary, the Geography Program has consistent and typical trends for university-level courses. Further evidence to support the conclusions can be observed with the data collected on the students with their success in English and Math courses. The Geography students analyzed in the data also were analyzed for success rates in their Math and Science courses. The success rates for Geography show to be slightly higher than in English and Math by

about 4-8%. This strong correlation supports the consistency between English and Math and the Geography Program. Shockingly, the Persistence rates following a student a year later are incredibly low. However, the data may not take into account the Continuing Students that successfully continued to a 4-Year college. Overall, the data shows a need to exceed beyond the current typical success rates. The On Course Program has the data to show increased success and retention rates. Perhaps the College will allocate or redirect resources in the direction of the On Course established Program.

### ***3.2 Degrees/Certificates Awarded (if applicable).***

Not Applicable at this time. The Geography Program is new and so there have not been any degrees awarded yet.

### ***3.3 Transfer (if applicable).***

Not Applicable at this time. The Geography Program is new and so there have not been any studies on the students in the program yet.

### ***3.4 Career Technical Programs (if applicable).***

Not Applicable

## **PROGRAM RESOURCES**

### ***4.1 Human Resources.***

The Geography Program needs a Full-Time Geography Instructor (100% Geography) who teaches the Social and Physical Science courses in Geography along with a GIS background. As of now, we have been teaching the Physical Science Geography with an Instructor who teaches just those courses part-time. We currently just hired an Adjunct Instructor for the Social Science Geography courses and another one for the GIS course. The Adjunct positions are highly unstable due to the pay, benefits, and lack of abundant course offerings. The new Geography program starts off weakly with the lack of a full-time instructor. We struggled to get the Adjunct positions filled and only have one Social Science Geography adjunct instructor and one GIS adjunct instructor. Without them, the courses cannot be offered. Without the dependability maintained in the course offerings, the Geography Program cannot meet the potential student demands.

### ***4.2 Current Staffing.***

We currently lack a full-time Geography Instructor to teach all areas of Geography: Social Science, Physical Science, and GIS. We are a piecemealed together group attempting to develop the program and show a need for more staffing. Through the next few semesters, we hope to see the demand increase and a position created for a full-time Geography instructor.

Our current Instructors contribute greatly to developing a strong Physical Science Geography Program with a steady offering of Physical Geography lecture in-person and online and a Physical Geography Lab every semester. The Instructor has committed time to the development of teaching also how to learn college-level science via the Academic Success Center and Basic Skills Workshops. We have reached out to the community by supporting programs such as, MESA, and the Solano County Inventor's Lab. We do not have a last program review cycle to compare to at this point. We will use this one over the next few years to compare and re-evaluate our path forward.

### 4.3 Equipment.

We are currently doing well with equipment. If the GIS component grows, we will need upgrades for the newer technology as it comes along. In addition, the lab materials will need to be replenished over time or with the advent of new lab material.

### 4.4 Facilities.

The facilities are outdated, especially Prep Room 332. The space is limited and equipment is stacked and cannot be easily accessed. The linoleum is cracked and degenerating in the classroom. The ceiling tiles are warped and falling apart. The light covers frequently fall from the ceiling. Recently, bats were in the classroom. One flew into the classroom from outside at dusk when the classroom door was opened as a student left to go to the bathroom. The door was not left open. In addition, the bat ended up having to be removed from the vent the next day. In addition, another bat was found dead in the classroom/lab sink closest to Prep Room 332. There is a high probability of a bat infestation in the roof above the classroom's degenerating tiles. In addition, the classroom and the 300 building lack appropriate ventilation leading to the likelihood of mold issues.

### 4.5 Budget/Fiscal Profile.

The budget has gone to supporting GIS equipment for the past several years. With growth of the program, the budget will develop more needs to profile.

## PROGRAMMATIC GOALS & PLANNING

**5.1** The last 5 years have been difficult financially for California. We have had many courses planned and canceled due to lower enrollments. The Physical Geography Program has remained stable and fairly successful. The Social Science courses need more in-person support and potentially an online component. The GIS courses could also use stability in its offerings and perhaps offer more hybrid courses to meet the growing demand for online learning.

**5.2** The Geography Program short-term (1-2 years) and long term goals (3+ years) are outlined and prioritized in the Table below.

Table 8. Short-Term and Long-Term Goals

Short-Term Goals	Planned Action	Target Date	Person Responsible	Source
1.	Hire more adjuncts in Social Science Geography and GIS	January 2016	Dean of Science, Currently Dean Yu	SP
2.	Generate data from Geography Program Survey	January 2015	Danielle Widemann, Physical Geography	NR

3.	Advertise the Geography Program	January 2016	Dean and the Instructors	DB
Long-Term Goals	Planned Action	Target Date	Person Responsible	Source
1.	Hire a full-time Social Science and GIS Instructor	January 2017	Division Dean	SP
2.	Offer the courses online or as Hybrids	January 2018	Social Science Instructor	NR
3.	Expand course offerings	January 2018	Division Dean	NR

In the source column denote “SP” for Strategic Proposals, “DB” for Department Budget, “P” for Perkins or “NR” for No Additional Resources Needed.

## SIGNATURE PAGE

### 6.1 Signatures

The undersigned faculty in the Geography Program, have read and concur with the finding and recommendations in the attached program review self-study, dated 12/15/14.

X \_\_\_\_\_

Danielle Widemann

X \_\_\_\_\_

Mark Feighner