ALLAN HANCOCK COLLEGE

PROGRAM REVIEW

for

Geography

Six-Year Review for Academic Programs

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Spring 2022

Thanks and Current Progress

Thank you to Dave Degroot for helping me with CORS, articulation, AA-T building, and patience.

Thank you to Steven Butler, Rick Rantz, Tom Vandermolen, and Rajni Chaudhari for being part of the program review building process.

Thank you to Maryfran Marecic and Yvette Valadez-Andrade for their continuous support.

A special thanks to Jenny Schroeder for discussing the program review process and providing a great example of what a program review should look like.

Over the course of the program review process I have had the pleasure of having discussions with Feride Schroeder (Geology Faculty) about utilizing our GIS software, and Lainey Campos (Counseling) about SuccessNet. Both of these conversations have already helped with goals established with this program review. I have also recently spoke with Dave Degroot about what needs to be done with articulation maintenance and will be setting up another meeting soon to discuss a plan to continue with some of the needed work in that area of the program. In addition, Rajni and I continue to attend Senate meetings to stay current on the possibility of modality growth among other vital topics. I believe the Geography Program will be prepared for any new development that needs to be adjusted to.

PROGRAM REVIEW

Geography

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SECTION 1

PROGRAM REVIEW

Status Summary - Plan of Action-Post Validation

During the academic year, 2015-2016, the Geography Program completed program review. The self- study and validation teams developed a final plan of action-post validation based on information in the self-study and the recommendations of the validation team. For each plan, indicate the action taken, the result of that action, and the current status of the plan, if it is incomplete.

(If any plan was made and action not taken, please state the rationale for not pursuing that particular item.)

RECOMMENDATIONS TO IMPROVE **STUDENT LEARNING OUTCOMES** AND ACHIEVEMENT	**Progress**
More thorough and more frequent assessment of SLOs is needed throughout each term. Update course outlines and ensure all faculties within the program are using the same SLOs. Develop relationships with counselors so that students receive a more thorough understanding of the geography program and the courses offered (including SLOs) and how they meet the needs of each student. Stipends to engage part-time faculty in SLO assessment including the possibility of common grading schemes.	Assessment has continued, although slowly, through the past six years (and pandemic). A major transition from SLO to PLO along with a new software system for entering data has set back the assessment process. Nonetheless, the Geography program has done its best to maintain its footing and has early assessment data recorded. The nature of assessment has changed and has naturally unified under PLOs, therefore no change is needed to individual SLOs (as was stated on the previous review). The need to develop even stronger relationships with counselors still exits although we have recently reached out to promote our new course offerings. Stipends are still a needed component to assessment but this may develop more if assessment extends beyond the basic 30 data point count that is currently being used.

RECOMMENDATIONS TO ACCOMMODATE CHANGES IN **STUDENT CHARACTERISTICS**	**Progress**
Enrollment Changes Explore ways to increase enrollment. Possibilities include the introduction of new courses such as GEOG 105, GEOG 110, and GEOG 111.	Yes, progress has been made with offering more online options as well as shorter term offerings. New modalities may expand this even further but only time will tell. We are also considering expanding our College Now offerings to bring in more enrollment as well.

Demographic Changes None	N/A
Retention Change	
Continue review and analysis of P/CSLOs to ensure continuous improvement of the program and identifying gaps that may trigger decreased retention scores Develop activities that engage students early in semester. Create assignments that link students together. Establish clearer guidelines for each course within the program so that students remain directed and focused.	A greater need to improve the success and retention of Black and Pacific Islanders has been noted. Early engagement activities have been given but need to be improved. Groupwork assignment have been a challenge during the pandemic but continued through online discussions. This area still needs improvement as the pandemic created many challenges in the way of stay directed and focused.

RECOMMENDATIONS TO IMPROVE THE **EDUCATIONAL ENVIRONMENT**	**Progress**
Curricular Changes Introduce a lab component to GEOG 101. Explore the possibility of introducing new courses such as GEOG 105 and GEOG110. In addition, explore the re-introduction of a GIS course (possibly DL)	A lab component of Physical Geography (GEOG 101) is scheduled for Fall 2022. GEOG 105 is also being offered in Fall 2022. GEOG 110 has been offered since Winter 2020. GIS is scheduled to be offered in Spring of 2023!

Co-Curricular Changes A lab course for GEOG 101 would allow students the possibility to establish a weather station on campus and create weather reports for the college. Develop grading rubrics for greater continuity throughout the program.	The campus weather station has been up and running for several years now. This along with GIS related activities will be implemented within the lab course offered in Fall 2022.
Neighboring College and University Plans Review articulation agreements. Investigate lab compatibility with neighboring universities.	The articulation agreements have been reviewed. GEOG 105 is still being worked on and will need a little more time for CSU GE approval. Lab compatibility has been established.

RECOMMENDATIONS THAT REQUIRE ADDITIONAL RESOURCES	Progress
Facilities Continuity in classroom assignment	Success in this continues.
Equipment (Non-Technology) New maps, especially relief maps are needed. An array of charts is needed including a cloud chart, precipitation type chart, and rock type chart. Printed climographs for quick references. New population maps, ethnicity charts and maps, urbanization maps, as well as other human geography related topics would be beneficial.	These areas still need to be improved upon. A few new maps have been used but this area will most likely remain one that needs constant work as maps and geography related materials are often in need of being updated.
Staffing Hire full-time faculty	Achieved in 2016.

Technology Numerous updates are needed. Weather station (installation). 1-2 laptop(s) for online courses, hybrid courses, and SLO assessment data input. Other devices such as an aneroid barometer, GPS receivers, and GIS software would be extremely beneficial for hands-on learning. iPads for students (although a dream at this point) would entirely change the program in terms of student learning, participation, and success. A dual screen projector (one for maps and one for lecture slides) would also be beneficial. Acquire 1-2 new clickers and at least 1 wireless mouse.	The weather station has been successfully installed. A laptop was ordered but (possibly) due to supply chain issues has not been received yet. GIS software will be a crucial part of the Physical Geography lab along with GEOG 155 (Introduction to GIS). Laptops may be a better option A dual screen was installed but needs to be repaired due to a power outage that occurred at the beginning of Spring 2022.

SECTION 2

Allan Hancock College Program Review

2021-2022 Comprehensive Self-Study

Program review is intended to be a reflective process that builds on the extensive qualitative and quantitative data gathered from not only program reviews and annual updates but also the office of Institutional Research and Planning. The process lays out the program's major directions for the future and is the foundation for institutional planning and resource allocation. (Place your responses in the expandable text boxes below each question.)

I. Program Mission *(must align with college mission statement)*

MISSION STATEMENT

The geography department at Allan Hancock College is committed to providing students with a deeper understanding of Earth's physical and cultural environments. Our goal is to encourage the creative and critical thinking skills of students within the field of geography that can be applied in their future academic and professional pursuits. We focus on Earth processes that help explain the complex relationship between humans and their environment. Globalization and diversity are also emphasized throughout our courses.

The Geography program supplies students with needed personal skills and knowledge along with potential career skills and knowledge. We offer courses that allow students to transfer in their general educational pursuits as well as their skill building processes. Recently, the Geography program has begun offering an Associate of Arts for Transfer and will continue to serve students in multiple capacities.

II. Progress Made Toward Past Program/Departmental Goals

Summarize the progress the discipline has made toward achieving its goals during the past six years. Discuss briefly the quality, effectiveness, strengths and struggles of the program and the impact on student success as reflected in past comprehensive program reviews and Annual Updates.

PROGRESS SUMMARY:

Over the past six years the Geography Program has done well in achieving its goals. We have developed new course offerings as well as an AA-T degree. Our ability to maintain student success and retention remains relatively stable. COVID has introduced several challenges in regards to success and retention. Despite these challenges, the quality of the program has remained strong and we have maintained both our success and retention numbers.
One of our current challenges is our ability to offer new courses. We have attempted to run a Physical Geography lab course without success. Part of the reason for this is the timing with

COVID, another reason is the time at which it needed to be offered. The good news, in regards to course offerings, is that we have successfully offered one new course (Introduction to Weather and Climate). The Geography Program needs to find ways to successfully offer all of its courses so that students who are interested in earning an AA-T degree in Geography may do so in a timely fashion.

Progress today:

The Geography Program now consists of one full-time instructor and one part-time instructor. We are also gearing up to hire another part-time instructor in Fall of 2022 or Spring of 2023.

The goals of our past program review are listed below followed by our achievements:

1. Establish a stronger communication bond between both part-time geography instructors to ensure greater overall success in the program.
2. Hire a full-time instructor.
3. Review student learning outcomes (SLOs) used by both instructors and update as needed.
4. Access SLOs regularly throughout the program.
5. Create and implement a series of rubrics to assist instructors in achieving solidarity in assignments and exams as well as easing the assessment process of student learning outcomes.
6. Maintain regularity in term updates (including SLO assessments), annual updates, and course reviews.
7. Assess and update the use of technology within the program as well as creating a long-term plan to move the program into the future and ensure greater student success.
8. Propose new course offerings such as GEOG 110, GEOG 105, GEOG 111 (lab), and GIS-related courses.
9. Explore the possibility of making a common and comprehensive final exam for all geography courses.
10. Continue to serve as an important component to general education for transfer and various degree goals.

Progress with these goals:

1. Communication between instructors has improved but was stunted in-part due to COVID.
2. A full-time instructor was hired in 2016.
3. Student Learning Outcomes assessment has shifted to Program Learning Outcome assessment. This transition has been slow going, partially due to COVID, but more importantly through the introduction of new assessment software.
4. Despite the slow-going assessment transition described above, the Geography Program has become familiar with SPOL (the new assessment software) and has begun to enter data as outlined in our assessment plan.

5. Many more advancements (not included in the above goals) have been achieved by the Geography Program over the past six years. Those achievements will be discussed throughout this review.

Current progress in the geography program is also further evident through the completion of this review. The quality of the program is outlined below in both its strengths and challenges.

Program Overview: Strengths

- Two dedicated faculty serve in the Geography Program (both have been teaching at Allan Hancock College for over 10 years).
- Both instructors have complete versatility within the program, meaning that they each are capable of teaching all courses within the program (both face-to-face and DL).
- Faculty member, Chris Straub, serves as a board member for the California Geographical Society and offers social links into Cal Poly's Geography program as well as other Geography programs throughout the state.
- New connections have been made with the Geology Program at AHC as a way to build the use of AHC's contract with GIS software.

III. Analysis of Resource Use and Program Implementation

Describe the program's current allocation and use of human, physical, technology, and fiscal resources. Are resources sufficient and appropriate to meet program needs? Can program resources be reallocated to better meet student needs? If so, how?

The geography department's allocation and use of human, physical, technology and fiscal resources, may be strengthened (reallocated) at both LVC and SM locations to better meet students' needs as well as the programs needs as outlined below:

Types of Resources	Current	Needed/Desired	Cost
Facility Needs	Courses are offered only at the Santa Maria Campus and online No designated lab class or computer lab for GIS	Courses need to be offered at the Lompoc Campus to further serve students A designated lab / computer lab for GIS class may be needed.	None
Technology Needs	One borrowed laptop (note: a work laptop was ordered in spring 2021 but hasn't been received) Establishing use of GIS Software Use of computers for GIS and additional lab uses Class camera and mic	Work laptops Access to GIS software for staff and students Continue licensing of GIS software Use (or borrowing) of computers for GIS and additional lab uses Current Zoom or Hybrid/Hyflex equipment as needed.	$500-$3000 (depending on cost and number purchased) N/A (costs depend on licensing fees, IT's time in loading the software onto the computers, etc.) TBD
Staffing Needs	One Full-Time Instructor and one Part-Time Instructor.	Another part-time faculty position is needed.	TBD

Equipment (non-technology) Equipment (non-technology) cont.	Antiquated maps, posters, and images. Old Props	Purchase new maps, posters, images, etc. New props and equipment for Physical Geography and Physical Geography Lab	$1000-$2000
Other Resources		Stipends for part-time instructors who participate in assessment training, assessment data input, all course and program review processes.	To be determined
Fiscal Needs	Unstated	Create a budget plan for the program to ensure adequate funding for a variety of ancillary needs such as funding guest speakers, field trips, conferences, and other professional related matters.	$5000

IV. Program SLOs/Assessment

What are your program student learning outcomes? Have each of these been assessed since the last comprehensive program review? Describe changes you have made to courses or the program based on these data.

What are the program student learning outcomes?

GEOG PSLO1 - Apply a variety of critical and creative strategies for solving complex geographical problems.
GEOG PSLO2 - Develop scientific reasoning and analysis skills to geographical spatial distributions and patterns.
GEOG PSLO3 - Express an understanding of geographic concepts, approaches, and methodologies.
GEOG PSLO4 - Demonstrate a science-based understanding of the Earth system along with its four major subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).
GEOG PSLO5 - Identify, evaluate, and explain the interdependence of people and places

including the relationship between humans and the Earth's finite resources.
GEOG PSLO6 - Correlate cultural phenomena to local and regional attributes of the physical landscape.
GEOG PSLO7 - Synthesize and critically analyze information related to current geographical issues.

Upon request, the above list was simply provided for reference of the Geography Program's past listing of our PSLOs.

Listed below are the current PLO's. These are the outcomes that are currently assessed and entered into SPOL (our new assessment software):

Program Learning Outcomes

Students will demonstrate the ability to:

PLO1 - Understand and effectively communicate the Earth-Sun relationship, the Earth's physical processes, and the human influence upon the physical environment.

PLO2 - Understand and effectively communicate the demographic, cultural, and economic differences, similarities, and connections on our planet.

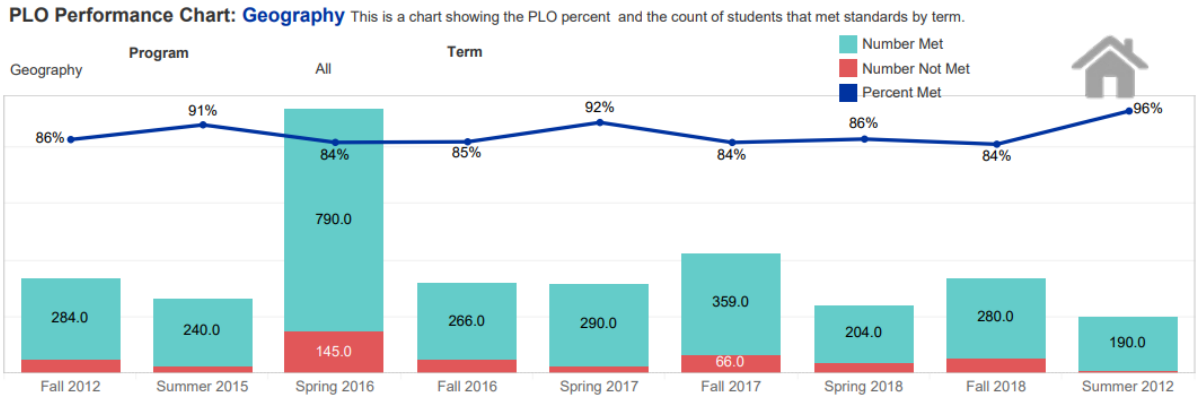
PLO3 - Understand and effectively communicate regional physical and cultural differences, similarities, and connections on our planet.

PLO4 - Understand and effectively use the methods and technologies used in geographic analysis (ex. remote sensing, GIS, GPS, and cartography.

Have the students learning outcomes been assessed since the last comprehensive program review?

Yes, as noted above: Student Learning Outcome (SLO) assessment has now shifted to Program Learning Outcome (PLO) assessment and the Geography Program has entered data using the new assessment software (SPOL) beginning in Spring 2021.

Charts below show a brief analysis of the Geography Program in regards to assessment (including PLO assessment and Institutional Learning Outcome (ILO) assessment):



The PLO Performance Chart above shows a variety of semesters with a high percent of students meeting the PLO standards. On average, 87.5 of the recorded students met the standard.

The PLO Performance Table below shows that PLO # 7 is the highest met PLO while PLO # 3 is the lowest met PLO. Although certain conclusions may be drawn from this table, these PLOs have been updated as part of the new assessment process and are dated.

PLO Performance Table: Geography- This is a table showing the overal PLO performance over the last 6 academic years, including percent and numbers of students meeting standards.

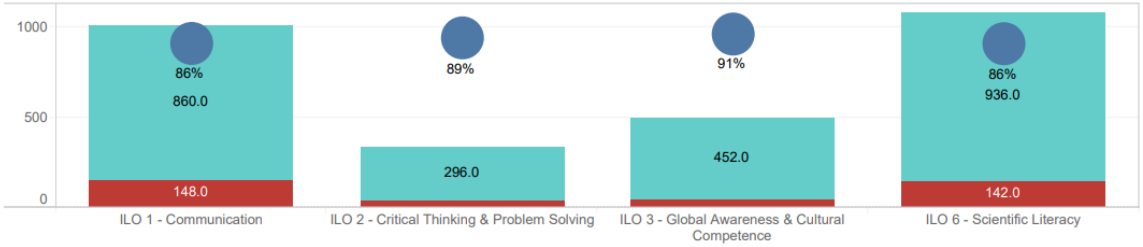
			Percent Met
Geography	GEOG 1	Apply a variety of critical and creative strategies for solving complex geographical problems.	88%
	GEOG 2	Develop scientific reasoning and analysis skills to geographical spatial distributions and patterns.	88%
	GEOG 3	Express an understanding of geographic concepts, approaches, and methodologies.	85%
	GEOG 4	Demonstrate a science-based understanding of the Earth system along with its four major subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).	89%
	GEOG 5	Identify, evaluate, and explain the interdependence of people and places including the relationship between humans and the Earth's finite resources.	86%
	GEOG 6	Correlate cultural phenomena to local and regional attributes of the physical landscape.	87%
	GEOG 7	Synthesize and critically analyze information related to current geographical issues.	91%

Number Met, Number Not Met and Percent Met broken down by Program, PLO erp and PLO. Color shows Percent Met. The data is filtered on Term1 (SLO_Performance), which keeps 33 of 33 members. The view is filtered on Program and PLO. The Program filter keeps Geography. The PLO filter keeps 291 of 1,024 members.

Program

Geography

ILO Performance Chart: Geography- This is the ILO performance of the program for the past 6 academic years in a table that includes the number of courses that are connected to each ILO.



ILO Performance Table: Geography- This is the ILO performance of the program for the past 6 academic years.

	# of Connected Courses	Avg. Percent Met	Number Met	Number Not Met
ILO 1 - Communication: Communicate effectively using verbal, visual and written language with clarity and purpose in workplace, community and academic contexts.	3.0	86%	860.0	148.0
ILO 2 - Critical Thinking & Problem Solving: Explore issues through various information sources; evaluate the credibility and significance of both the information and the source to arrive at a reasoned conclusion.	1.0	89%	296.0	38.0
ILO 3 - Global Awareness & Cultural Competence: Respectfully interact with individuals of diverse perspectives, beliefs and values being mindful of the limitation of your own cultural framework.	2.0	91%	452.0	44.0
ILO 6 - Scientific Literacy: Use scientific knowledge and methodologies to assess potential solutions to real-life challenges.	2.0	86%	936.0	142.0

The ILOs assessed above show a large number met by students throughout the discispline. See attachment for more information.

Overview of Assessment:
The Geography Program has steadily improved with assessment over the past 10 years. Ten years ago, we had the lowest number of assessments recorded in our department. Today we maintain continuous assessment of our PLOs along with their data collection into SPOL. This does not mean that we do not have room for improvement in regards to assessments, as I would still like to see more meaningful as well as a more robust assessments throughout the program.

No direct changes have been made within the program in relation to the data given.

V. Distance Learning (If applicable):

Describe the distance education courses offered in your program and any particular successes or challenges with these courses. Include the enrollment as well as percentage of courses offered by modality and the rationale for this ratio.

- Compare the success and retention of your online offerings to the same courses offered face-to-face. Analyze any gaps and plans to address these.

As well, describe how program instructors ensure regular substantive instructor-initiated contact in online classes.

Distance Learning

Describe the distance education courses offered in your program and any particular successes or challenges with these courses.

The geography program now offers of its courses as DL courses. In addition, all new course offerings are set up to be offered in DL as well.

Program review for online courses

Success and challenges:

On-line courses allow students flexibility to control their hours of study in their familiar surroundings without having to commute to school.
U.S. citizen who live overseas can also enroll in on-line courses and finish their degrees.
The following are some of the challenges:
Students need to become technology savvy so they can utilize technology to work efficiently to their advantage.
One of the challenges of on-line courses is how do you verify if students are not cheating?

Instructor-initiated contact:

We use one or more of the following methods to communicate with our students:

- Threaded discussion forums with mandatory participation.
- General emails, weekly announcements via Canvas, and if necessary telephone calls.
- Provide timely feedback to students and review sessions via Canvas.
- Face-to-face office hours or individual meetings.
- Regular comments on discussion board postings in a time bound manner.
- Reply to emails within 12 hours and also setup weekly virtual office hours.
- Instructor initiated interaction with students.

Percentage of courses offered by modality and the rationale for this ratio:

The percentage of courses by modality has changed over the past six years. Online Courses have been more popular and more promoted at times while onsite class have declined. In addition, COVID introduced a greater need for online or hybrid modalities. These trends are displayed in the chart below:

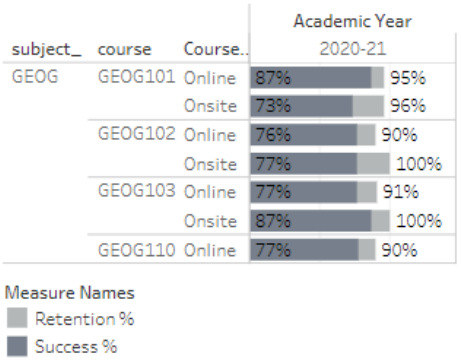
4 Online / Onsite course comparison GEOG
All online courses and matching onsite courses

			Academic Year																			
			2015-16				2016-17				2017-18				2018-19				2019-20			
subject	course	Course Type	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES	Hea..	Enr..	Sect..	FTES
GEOG	GEOG101	Online	227	231	3	22.4	305	319	5	31.0	392	394	6	38.3	411	414	6	40.2	393	396	6	38.5
		Onsite	166	167	5	17.3	157	157	6	16.3	176	176	6	17.9	108	108	3	11.2	103	103	3	10.7
	GEOG102	Online	129	131	3	12.7	232	246	4	23.9	269	273	5	26.5	351	360	6	35.0	369	384	7	37.3
		Onsite	108	108	4	11.2	147	162	6	16.5	58	58	2	6.0	88	88	2	8.8	115	115	3	11.6
	GEOG103	Online	20	20	1	1.9	22	25	1	2.4	98	99	2	9.6	105	106	2	10.3	107	107	2	10.4
		Onsite	49	49	2	5.2	41	41	2	4.2	123	124	4	11.6	54	54	2	5.6	63	63	2	6.5
	GEOG110	Online																				

Retention and success in modalities:

Online success and retention remain high for both modalities. Comparisons vary. Physical Geography (GEOG 101) online appears to have a greater success rate but a slightly lower retention rate. In contrast, Human Geography (GEOG 102) onsite has a slightly higher success rate while also maintaining a higher retention rate. Overall, the slight differences that exist between the modalities is a good sign that both modalities are similar enough and do not cause too much concern. The most dramatic difference in modalities comes in GEOG 101 and that may be due to the stronger leaning toward writing assignments given in the onsite classes.

4 Online / Onsite Retention & Success course comparison GEOG
All online courses and matching onsite courses



Overview of Distance Learning:

The Geography Program has done a great job in adjusting to the higher demands of online learning. High retention and success rates are the norm for most courses within the program. All that being said, I would like to see a greater focus put on Instructor initiated contact, refreshed discussion prompts, as well as refreshed quiz and exam questions.

A further note is the possibility of entering into a new era of hybrid courses. At least two of the courses (Physical Geography and Human Geography) have been taught in this modality already and I believe that the Geography Program will readily adapt to any hybrid modalities that become part of the college's strategy for student success.

VI. Success, Retention, and Equity

Describe how the program works to promote student success. Include teaching innovations, use of academic and student support services (library, counseling, LAP, community partnerships, etc.). Refer to list of Student Services.

- Then, utilizing data from the office of Institutional Research and Planning, report on student success through course completion and retention data. Analyze, by discipline, success by gender, age, ethnicity, and online (may analyze other variables such as disability, English as a second language, day vs. night courses, etc. as appropriate).

- Suggest possible reasons for these trends and planned actions to address any disproportionate impact.

Describe how the program works to promote student success.

The geography program works to promote student success by following the general framework for student success as outlined in the college's educational master plan (listed below).

- Competency in written, oral, and visual communication;
- Information and technology literacy;
- Scientific and quantitative literacy;
- Critical thinking and ethical reasoning skills;
- Civility and interpersonal skills;
- Understanding of cultural diversity and environmental sustainability;
- Demonstrated historical and aesthetic sensibility;
- Capacity to assume civic, political, and social responsibilities locally and globally;
- Ability to acquire knowledge for life-long learning through a variety of means.

We help students to achieve these goals by using various teaching styles that include the three primary methods (audio, visual, and kinesthetic) of instruction. The geography program also offers all of its six cataloged courses as distance learning courses which allows students from local and nonlocal areas to complete many of our courses within a more open time frame. Face-to-face courses remain popular and are offered every term (with the exception of winter) as well.

The geography program also believes in the six success factors outlined in the college's strategic plan. A list of how the program contributes to these six success factors (DIRECTED, FOCUSED, NURTURED, ENGAGED, CONNECTED, AND VALUED) is outlined below.

DIRECTED:
Clear course outlines and instructions on our syllabi allow for students to maintain direction throughout the year.

FOCUSED: instructors help students stay focused by giving them weekly responsibilities such as reading and writing assignments.

NURTURED: questions are encouraged within the classroom as a way to nurture curiosity and the continuous development of knowledge.

ENGAGED: in-class tasks are assigned to help keep students engaged. Students are also informed about and encouraged to participate in college activities outside of the classroom.

CONNECTED: the program strives to learn the names of students and call on them when possible to keep the classroom connected.

VALUED: student participation is encouraged and appreciated to show that each student is valued in the classroom and on campus.

In addition, the geography program also works with outside resources such as the Learning Assistance Program (LAP), the library, sports programs, financial aid and other financial programs to help maximize the success of students both in and out of the classroom.

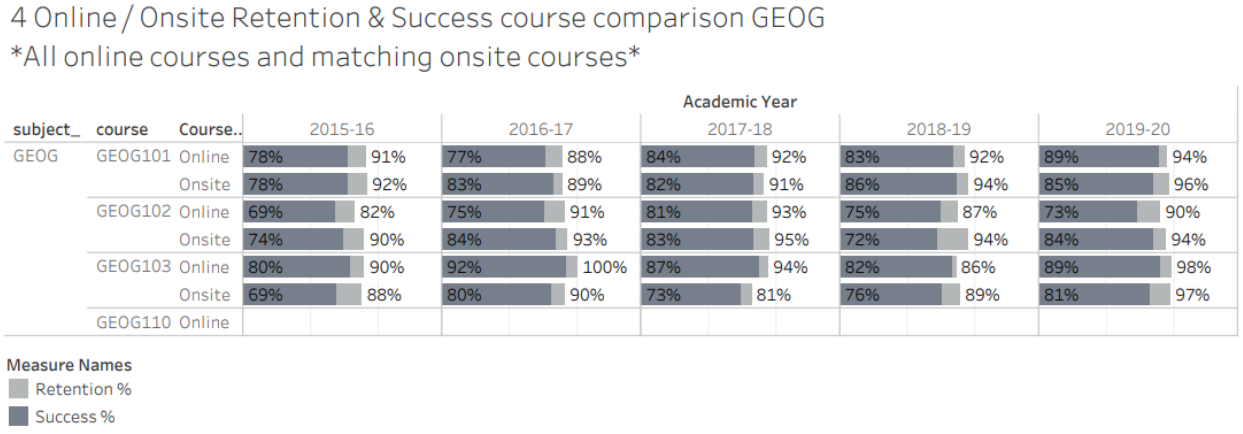
An analysis of the success, retention, and equity within the Geography Program follows:

Anaylsis of Success, Retention, and Equity

Analysis by discipline 2015 through 2020:

Most courses in the Geography Program have high succes and retention rates. In 2015 success rates were slightly lower than average. Success in most disciplines has improved over the five year period. Human Geography (GEOG 102) tends to have the lowest success rates. The reason for this may simply be that Human Geography is very broad and covers many different areas such as language, religion, and ethnicity. Enrollment for GEOG 102 also tends to be lower, an indication that a closer look into its overall improvement may be needed. Nonetheless, the Geography Program appears to have relatively high success and retention rates throughout its disciplines. In deeper analysis, the success and retention for all disciplines appears to be higher on average than averages from the previous Program Review.

The following chart displays success by discipline (2015 through 2020):



Analysis by gender:

Males generally had higher enrollment figures from 2015 until 2018. In 2018 until 2021 female enrollment has consistently surpassed male enrollment. This may be part of the job market trends as well as a possible side-effect of COVID. As a note, a similar trend appears to have developed at AHC beginning a bit earlier in 2016-2017.

Geography Program by Gender:

	2015-16		2016-17		2017-18		2018-19		2019-20		2020-21	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Female	356	37.4	406	42.0	477	51.7	565	61.6	574	60.1	340	35.5
Male	381	40.6	448	48.5	513	56.7	442	48.3	467	50.6	261	26.9
Unknown	1	0.1	1	0.1	9	1.3	4	0.5	5	0.5	7	0.7

AHC by Gender:

	2015-16		2016-17		2017-18		2018-19		2019-20		2020-21	
	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Female	8,360	4,479	8,768	4,922	8,937	4,913	8,454	4,877	8,777	4,837	8,274	4,467
Male	8,643	4,159	8,340	4,181	8,126	4,049	7,027	3,916	7,521	3,767	6,316	3,053
Unknown	3	2	109	23	181	51	121	52	228	88	209	88

Females on average have a slightly higher success rate and retention rate than males in the Geography Program.

As shown in the graph below male success fell 4.0% in 2020-2021 while female success rose 4.6%.

	Academic Year 2020-21									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
Female	344	365	0	35.9	94.0%	0.4%		81.9%	4.6%	
Male	266	278	1	27.4	92.4%	-0.3%	1	76.5%	-4.0%	12
Unknown	9	9	0	0.9	88.9%			55.6%		
Grand Total	**619**	**652**	**1**	**64.2**	**93.2%**			**79.3%**		

Summary of gender analysis: no dramatic discrepancies can be found in either gender retention or success rates. As stated above, females tend to perform better in both categories from the 2020-2021 data. The drop in male retention and success coincide with the overall trend at AHC during the 2020-2021 period (please see the two graphs below).

	Academic Year 2020-21						
	Headcount	Enrollment	EW count	FTES	Retention %	PPG AHC Retention Mod	PPG AHC Retention Impact
Female	7,724	27,366	75	3,881	88.9%	0.6%	
Male	5,985	20,284	69	2,770	88.3%	-0.5%	99
Unknown	283	841	1	111	87.0%	-1.8%	15
Grand Total	**13,986**	**48,491**	**145**	**6,762**	**88.6%**		

	Academic Year 2020-21						
	Headcount	Enrollment	EW count	FTES	Success %	PPG AHC Success Mod	PPG AHC Success Impact
Female	7,724	27,366	75	3,881	74.4%	2.3%	
Male	5,985	20,284	69	2,770	72.4%	-1.8%	361
Unknown	283	841	1	111	66.1%	-8.0%	68
Grand Total	**13,986**	**48,491**	**145**	**6,762**	**73.4%**		

Analysis by ethnicity:

Ethnic enrollment in the geography program generally matches the general AHC trend as Hispanics and Whites are the dominant ethnic groups. The third largest ethnic group is Blacks. The charts below (and next page) show ethnic groups by headcount and FTES.

	2015-16		2016-17		2017-18		2018-19		2019-20		2020-21	
ETHNICITY	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES	Headcount	FTES
Asian	22	2.2	31	3.2	34	3.9	20	2.2	24	2.7	9	1.0
Black	46	5.2	76	8.4	60	7.6	49	5.3	53	5.8	19	2.0
Filipino	30	3.3	28	2.9	20	2.4	22	2.6	29	3.0	18	2.0
Hispanic	387	41.1	417	43.5	474	52.1	458	50.4	452	47.1	268	27.8
NativeAm	6	0.7	9	0.9	15	1.8	21	2.2	36	3.7	6	0.6
PacIsl	3	0.3	9	0.9	9	1.0	10	1.1	15	2.2	8	0.8
White	244	25.4	285	30.8	387	41.0	431	46.5	438	46.6	280	28.9

	Academic Year 2020-21									
	Headcount	Enrollment	EW count	FTES	Retention %	PPG Retention Mod	PPG Retention Impact	Success %	PPG Success Mod	PPG Success Impact
Asian	9	10	0	1.0	100.0%			80.0%		
Black	19	20	0	2.0	95.0%	-3.7%	1	70.0%	-15.5%	4
Filipino	18	20	0	2.0	95.0%	3.4%		70.0%	-1.3%	1
Hispanic	268	282	0	27.8	89.7%	-3.0%	9	76.6%	-2.2%	7
Native Am	6	6	0	0.6	100.0%			83.3%		
Pac Isl	8	8	0	0.8	100.0%			50.0%		
White	280	295	1	28.9	95.9%	2.5%		83.7%	4.1%	
Unknown	11	11	0	1.1	90.9%	0.9%		81.8%	7.8%	
Grand Total	**619**	**652**	**1**	**64.2**	**93.2%**			**79.3%**		

Hispanics generally have average retention rates. Hispanic success rates are slightly lower (76%) than average (80%).

Whites generally have average to above average retention rates and wavering success rates. On average Whites meet the average success mark at approximately 83.7%.

Blacks generally have a higher than average retention rate but have a notably lower than average success rate. In the 2020-2021 data set, Blacks have a PPG Success Modulation displaying -15.5%. My only explanations for this decline is COVID. In addition, the headcount for Blacks is not large and thus the decline may appear exaggerated by a small number of students.

Pacific Islanders tend to have the lowest success rate. This may be due to a lack in attendance, assignment completion, and test scores as retention rates are 100% in the 2020-2021 data set.

Summary of ethnicity analysis: although Whites have a slightly higher average success rate than Hispanics there is no dramatic difference between retention and success rates within the two major ethnic groups. Blacks and Pacific Islanders need to be monitored closely to stabilize success rates.

Geography Program's data for success and retention:

	Sum 2014	Sum 2015	Fall 2015	Winter 2016	Spring 2016	Sum 2016	Fall 2016	Winter 2017	Spring 2017	Sum 2017	Fall 2017	Winter 2018	Spring 2018	Sum 2018	Fall 2018	Winter 2019	Spring 2019	Sum 2019	Fall 2019	Winter 2020	Spring 2020	Fall 2020	Spring 2021
Sections	6	4	6	1	8	8	6	2	8	6	8	2	9	3	8	2	8	5	8	2	8	8	8
Headcount	233	153	243	75	300	216	255	150	278	251	368	155	332	175	415	155	353	264	389	162	332	356	287
Enrollment	235	157	245	75	304	260	257	154	279	253	375	159	337	181	426	161	362	264	402	166	336	363	289
retained	205	142	209	66	279	247	221	138	252	233	341	152	300	161	388	145	323	250	362	154	301	336	271
Retention %	87%	90%	85%	88%	92%	95%	86%	90%	90%	92%	91%	96%	89%	89%	91%	90%	89%	95%	90%	93%	97%	93%	94%
success	177	129	172	55	229	222	184	124	222	211	302	146	262	150	329	135	283	227	295	144	275	279	237
Success %	75%	82%	70%	73%	75%	85%	72%	81%	80%	83%	81%	92%	78%	83%	77%	84%	78%	86%	73%	87%	89%	77%	82%
FTES	21.4	15.5	24.7	7.3	30.7	25.6	25.7	15.0	28.2	23.9	37.1	15.4	33.5	17.6	42.2	15.6	35.6	25.9	39.9	16.1	33.0	35.8	28.4

The average retention rate for all geography classes from Summer 2012 to Spring 2021is approximately 90%. Note: this average is the same as it was in the last program review.
The average success rate is approximately 80%. Note: this is up 2% from the last program review.

In comparison to all of AHC, the Geography Program has a slightly higher average retention rate compared to and a slightly higher success rate.

AHC's data for success and retention:

	Sum 2015	Fall 2015	Winter 2016	Spring 2016	Sum 2016	Fall 2016	Winter 2017	Spring 2017	Sum 2017	Fall 2017	Winter 2018	Spring 2018	Sum 2018	Fall 2018	Winter 2019	Spring 2019	Sum 2019	Fall 2019	Spring 2020	Sum 2020	Fall 2020	Spring 2021
Sections	355	1,177	41	1,220	357	1,184	41	1,214	333	1,168	45	1,186	270	1,145	47	1,159	299	1,208	1,212	272	1,119	1,107
Headco..	5,593	10,982	1,051	11,341	4,354	12,111	1,023	11,636	5,306	11,889	1,118	11,320	4,596	11,380	1,171	10,580	4,940	12,091	11,342	4,633	10,462	10,076
Enrollm..	8,789	28,471	1,270	28,153	8,305	29,268	1,314	28,161	8,052	28,754	1,480	26,960	6,868	28,650	1,535	26,193	7,252	30,166	26,977	7,364	25,401	23,090
Retention %	90%	86%	84%	89%	90%	88%	87%	88%	90%	87%	87%	88%	90%	87%	88%	88%	92%	88%	92%	90%	88%	89%
Success %	77%	70%	71%	73%	80%	71%	77%	74%	80%	71%	79%	74%	80%	71%	79%	74%	81%	72%	85%	80%	72%	75%
FTES	1,009	3,807	111	3,715	967	4,197	115	4,020	900	4,126	139	3,869	835	4,061	169	3,827	846	4,136	3,763	827	3,531	3,231

VII. Trend Analyses/Outlook

Using the information already gathered in the Annual Updates s (e.g., enrollment and achievement data; student learning outcomes assessment and analysis; input by advisory boards; existing articulation agreements; labor market trends) summarize the major trends, challenges, and opportunities that have emerged in the program since the last comprehensive program review. Explain possible causes for any identified gaps or trends and actions taken or needed to address these.

The Geography Program has developed slowly since the time of the last comprehensive review. We have continued to maintain high success and retention levels. (as displayed in the analysis above) Overall enrollment is up.

A display of selected past enrollment going back to S2011:

Spring 2011 Enrollment = 197
Spring 2015 Enrollment = 256
Spring 2016 Enrollment = 304
Spring 2018 Enrollment = 337

The Geography Program's highest enrollment came in the Fall of 2018 with 426 students. This has declined (most likely due to COVID) to 289 in the Spring of 2021. Nonetheless, overall enrollment figures have been high, and still remain higher than they were in 2015.

Fill Rates

Fill Rates and Demand Ratios also maintain high averages and when looking at both the 2019-2020 and the 2020-2021 academic years we find that most of the Geography courses have strong fill rates. The two courses with the lowest fill rates are Human Geography (GEOG 102) and World Regional Geography (GEOG 103). Both of these courses continue to lack the same fill rates as Physical Geography. Please see the chart below:

Academic Year	Term Code_	course_	FTES	FTEF+	FTES / FTEF	Enrollment	Maximum Enrollment	MaxEnroll..	Fill Rate
2019-20	Sum 2019	GEOG101	7	0.424	15.4	67	70	70	96%
		GEOG102	14	0.846	16.0	137	140	47	98%
		GEOG103	6	0.212	27.5	60	70	70	86%
		Total	**26**	**1.482**	**17.5**	**264**	**280**	**56**	**94%**
	Fall 2019	GEOG101	22	0.800	27.6	223	226	57	99%
		GEOG102	14	0.600	24.0	146	173	58	84%
		GEOG103	3	0.200	17.1	33	33	33	100%
		Total	**40**	**1.600**	**25.0**	**402**	**432**	**54**	**93%**
	Winter 2020	GEOG101	8	0.212	39.4	86	80	80	108%
		GEOG102	8	0.212	36.7	80	80	80	100%
		Total	**16**	**0.424**	**38.0**	**166**	**160**	**80**	**104%**
	Spring 2020	GEOG101	12	0.600	20.3	123	123	41	100%
		GEOG102	13	0.600	22.0	136	165	55	82%
		GEOG103	8	0.400	19.2	77	93	47	83%
		Total	**33**	**1.600**	**20.7**	**336**	**381**	**48**	**88%**
	Total		**115**	**5.106**	**22.5**	**1,168**	**1,253**	**54**	**93%**
2020-21	Sum 2020	GEOG101	9	0.636	14.7	96	96	48	100%
		GEOG102	3	0.424	7.6	33	36	36	92%
		GEOG103	6	0.212	26.6	58	60	60	97%
		GEOG110	5	0.212	22.0	48	60	60	80%
		Total	**23**	**1.484**	**15.4**	**235**	**252**	**50**	**93%**
	Fall 2020	GEOG101	18	0.800	22.2	179	182	46	98%
		GEOG102	12	0.600	20.5	125	133	44	94%
		GEOG103	6	0.200	28.7	59	80	80	74%
		Total	**36**	**1.600**	**22.4**	**363**	**395**	**49**	**92%**
	202130	GEOG101	7	0.212	33.5	73	60	60	122%
		GEOG102	6	0.212	27.5	60	60	60	100%
		Total	**13**	**0.424**	**30.5**	**133**	**120**	**60**	**111%**
	Spring 2021	GEOG101	16	0.800	19.8	161	168	42	96%
		GEOG102	7	0.400	17.5	72	90	45	80%
		GEOG103	6	0.400	13.8	56	78	39	72%

In contrast to the previous program review, online courses have stabilized in terms of success and retention. Overall, success and retention rates tend to be slightly higher than AHC averages. Enrollment trends tend to follow the general trend of the college in that more students appear to be taking online courses both at AHC and within the Geography Program.

General expansion of the program: the geography program has expanded its course offerings since the previous program review. More sections (throughout the year) are being offered and more courses have been built into the program's offerings. As previously mentioned, an AA-T degree has been created and we have evolved into a program that better matches other programs throughout the state.

Articulation: I have worked with Dave Degroot over the past decade to update the articulation status of all of the Geography courses. We are current in all of them but await a response from the CSU GE review committee for California Geography (GEOG 105).

Technology and the job market: employment opportunities for geographers have leveled out from the past program review. I'll explore two different views on the job market:

1. According to Career Explorer, job growth for geographers is set to increase 13%.
2. According to the U.S. Bureau of Labor Statistics Occupational Outlook Handbook, jobs for geographers are only projected to increase by 1% from 2020 – 2030.

These figures however misrepresent the breadth of geographers and geography in general. Geography itself is often a hub for many other career paths and geographers are often led into many other closely related careers paths because of this. Examples include: cartographers, photogrammetrists, geoscientists, environmental scientists, biogeographers, atmospheric scientists (meteorologists and climatologists), urban planners, and market analysts. A look into a few of these examples follows:

Cartographers:

1. According to Career Explorer, "There are currently an estimated 12,600 cartographers in the United States. The cartographer job market is expected to grow by 19.0% between 2016 and 2026." This is obviously a much larger growth than geographers in general (over a similar period) and reveals a hidden growth within the discipline.

2. According to the U.S. Bureau of Labor Statistics Occupational Outlook Handbook, jobs for cartographers are only projected to increase by 5% from 2020 – 2030.

Geographic Information System (GIS) courses are essential to any geography program's value in supporting the job marketplace. California is one of the leading states for GIS related jobs, and this need for well-trained GIS employees often starts at community colleges. Many community colleges have introductory GIS course offerings, and some even have GIS certification programs. * The geography program is aware that Allan Hancock College has

offered GIS courses before and had only partial success with it. We are currently working with the Geology Program at AHC to reestablish the use of GIS software. The Geography Program is also set to begin offering a GIS course by S2024.

Cartographers and photogrammetrists are two geography-related jobs that are birthed out of introductory GIS and remote sensing courses, and these jobs are growing quickly in Santa Barbara County, California, and beyond.

1. According to the U.S. Bureau of Labor Statistics Occupational Outlook Handbook, Surveying and Mapping Technician jobs are set to increase by 4% (2020-2030).
2. According to Career Explorer, surveyor jobs are projected to increase by 11%.

Atmospheric scientists (meteorologists and climatologist) also generally begin with their feet planted in geography.

1. According to the U.S. Bureau of Labor Statistics Occupational Outlook Handbook, Atmospheric Scientists including meteorologists) are projected to increase by 8%.
2. According to Career Explorer, Atmospheric Scientists are expected to increase by 12%.

Generally speaking all other geography related jobs in the U.S. (geoscientists, hydrologists, environmental scientists, urban planners, etc.) have projected job increase rates over the next decade.

As applicable, please address the breadth, depth, currency, and cohesiveness of the curriculum in relation to evolving employer needs and/or transfer requirements, as well as other important pedagogical or technology related developments.

Breadth: The Geography program offers both Social and Behavioral Science courses (GEOG 102 & 102) as well as a Physical Science course (GEOG 101). Both of these areas have been expanded with courses such as GEOG 105 and GEOG 110.

Depth: All geography courses cover the fundamental concepts and terminologies found within the discipline and are aimed at increasing geospatial skills. All courses are transferable.

Currency: All course content offered is current. Course outlines have been updated. C-ID approval has been granted and we are currently waiting on only one course (GEOG 105) for matriculation.

Cohesiveness: All the courses currently offered exist independently and are not designed as a progressive sequence. However, as geography is often considered a holistic science, elementary material tends to overlap at the beginning of all courses.

Pedagogical and Technological Developments: During the pandemic, all of the Geography Program courses were updated to be offered as DL offerings. We are also set to offer most (if not all) of our courses as hybrid courses if the need arises. I am currently working on changing our Physical Geography textbook to align with the text that will be used in our Physical Geography lab course. Instructors continue to research and implement new pedagogical approaches to increase student success and retention. We also will begin to promote our AA-T degree more over the 2022-2023 academic year.

VIII. Long-Term Program Goals and Action Plans (Aligned with the College Educational Master Plan)

Describe the long-term plans for changing or developing new courses and programs, other actions being taken to enhance student success, and the need for professional development activities and other resources to implement program goals. Be sure to show how these plans are related to assessment results. (Plan should cover five-year period and include target dates and resources needed.)

Long Term Plans	Summary And Impact On Student Success And Alignment With Master Ed Plan	Target Dates	Resources Needed
Course modification plan	General Updates Reintroduce GEOG 105 A California geography class would allow for students to develop a greater understanding (in both environmental and social avenues) of the state that they live in.	Ongoing 2023-2024	

New course development plan	Geographic Information Systems (GIS) course(s): As stated above, GIS courses are most significant to geography-related jobs. Creative approaches to the reintroduction of GIS would include offering it as a DL course and perhaps coupling it with other subjects such as cartography, agriculture, remote sensing, and other surveying technologies. Lab component of GEOG 101: All lab courses used for IGETC, CSUGE, and AHCGE transfer requirements generally have demand rates and fill ratios of 100% or higher (see appendix 3). Giving students that are enrolled in geography courses another lab option while meeting other GE course requirements would be beneficial to student success and would also potentially create more FTES.	S2023-F2023 F2022	
Professional Development	More professional development (attendance and offerings) is needed for the SLO assessment process, course review process, and annual update process.	Ongoing	

Overview of Long-Term Plans: The Long-Term plans for developing the program include:

1. Successfully offering and filling newly developed courses (GEOG 105, 110, 115 and 155)
2. Fine-tune the course offerings and course rotations to better fit both GE and degree success
3. Promote the AA-T degree.

General Comments: The pandemic has slowed the development and offering ability of certain course. The Geography Program has been working to secure transferability in all of its course.

Resources:

1. The Geography Program will most likely need to hire another part-time faculty member as we expand beyond our current offerings.
2. The Geography Program will need to secure and begin implementing GIS software into GEOG 115 and 155. This includes the ability for students to access the software remotely or on campus using designated computers.
3. Geography 115 and 155 need to be developed and successfully offered.

Professional Development:

1. Professional development needs to occur for GIS (GEOG 115 and 155) updating.
2. Professional development needs to occur for Physical Geography lab curriculum development.

Target Dates:

1. The target date for hiring a new part-time employee for the Geography Program is Fall 2022 or Spring 2023.
2. The target date for building and establishing GEOG 115 and 155 are Fall 2022 or Spring 2023.

SECTION 3

STUDENT DATA SUMMARY

Data analysis is a critical component of program review. The three categories below should be used as guidelines in developing a summary of the student data.

State at least three positive factors about the discipline/program identified by students. Include the number (or percentage) of students responding and any implications for planning.

1. Most (58% out of 45 responses) students replied positively ("Highly Satisfied") about the quality of instruction.
2. 47% out of 43 responses replied positively about the course being positive for their intellectual growth. This is good news because, at this level, these courses should be achieving that.
3. Positive remarks (61% out of 44 responses) were also given to the feedback and assessment of progress towards learning objectives.

Note: the above percentages do note include the "somewhat satisfied" figures. These figures would increase the positive responses even more.

Improvements can always be made but based on the data given from the student survey the plan of action is to continue doing much of the same.

State at least three negative factors about the discipline/program identified by students. Include the number (or percentage) of students responding and any implications for planning.

1. For some reason, a very low percent (2%) gave negative remarks on the survey. I don't know if they didn't understand the survey or if they were truly not happy with so many different parts of their particular course.
2. The course assistance through tutorial services (e.g. through the Tutorial Center, Math Lab, Writing Center) responses garnered 29% out of 38 being not unsatisfied or satisfied. This area should be improved. More needs to be done with assigning past students as tutors.
3. 32 % out of 38 responses were neither satisfied or unsatisfied with the advice about the program from counselors. This is a bit disappointing as I have worked with counselors over the years and will continue to do so. I would like to see better numbers for this section in the future.

State any other information (use responsive numbers) that you obtained from student data (e.g. focus groups, questionnaires, or SGIDs) that may be of special interest to the self study team. What planning implications will result from this information?

A high percent of students (50%) would like Geography courses to be online. Also, many (32%) would like hybrid or hyflex courses. Although I have seen counter data from other AHC courses to this trend, it definitely seems like students in many disciplines are

preferring online or hybrid/hyflex course offerings (modalities). At least one instructor shared similar findings to mine in regards to modality preferences. I have also heard from several students and several other instructors confirming these preferences.

*See Appendix A for Student Survey Results

SECTION 4

LEARNING OUTCOMES and ASSESSMENT PLAN

Program: Geography

Program Learning Outcomes

Students will demonstrate the ability to:

PLO1 - Understand and effectively communicate the Earth-Sun relationship, the Earth's physical processes, and the human influence upon the physical environment.

PLO2 - Understand and effectively communicate the demographic, cultural, and economic differences, similarities, and connections on our planet.

PLO3 - Understand and effectively communicate regional physical and cultural differences, similarities, and connections on our planet.

PLO4 - Understand and effectively use the methods and technologies used in geographic analysis (ex. remote sensing, GIS, GPS, and cartography.

Course Associations

I= Introduced R=Reinforced M= Mastered

	PSLO 1 - Understand and effectively communicate the Earth-Sun relationship, the Earth's physical processes, and the human influence upon the physical environment.	**PSLO 2 -** Understand and effectively communicate the demographic, cultural, and economic differences, similarities, and connections on our planet.	**PSLO 3 –** Understand and effectively communicate regional physical and cultural differences, similarities, and connections on our planet.	**PSLO 4–** Understand and effectively use the methods and technologies used in geographic analysis (ex. remote sensing, GIS, GPS, and cartography. .
GEOG101	**I,R**			**I,R**
GEOG102		**I,R**		**I,R**
GEOG103			**I,R**	**I,R**
GEOG105				
GEOG110	**I,R**		**R**	**I,R**
GEOG115	**R,M**			**R,M**
GEOG155	**R**			**M**

GEOG189	**R,M**	**R,M**	**R,M**	**R,M**

Planning Cycle

	PLO(s) to Assess (1 row per PLO)	Courses to Sample
Year 1: 2019- 2020___	2	102,189
Year 2: 2020- 2021	1	101, 110, 189
	3	103, 110, 189
Year 3: 2021- 2022	4	101,102,103,110,189
Year 4: 2022- 2023	2	102, 105, 189
Year 5: 2023- 2024	1	101, 110, 115, 189
	3	103, 110, 189
Year 6: 2024- 2025	4	115, 155

SECTION 5
Validation

Validation Team

Chris Straub, *Geography Faculty and Review Author*

Jenny Schroeder, *Speech Faculty*

Rajni Chaudhari, *Geography Faculty*

Tom Vandermolen, *Psychology Faculty*

Rick Rantz, *Academic Dean*

EXECUTIVE SUMMARY
(Validation Team Report)

FINDINGS and SUGGESTIONS

Discussions:

- Strengths:
  - Enrollment, retention, and success rates
  - New course offerings
  - Development of AA-T
- Demographics – Success and Retention rates of Blacks and Pacific Islanders
- Enrollment Strategies for GEOG 102 and 103:
  - Rick suggested to review Tableau to see when other classes are offered to see if times need to be adjusted
  - Rick suggested limiting the offering of courses (in rotation) to increase likelihood of minimum enrolment
- Modalities – the possibilities of hybrid and hyflex offerings
  - Offering daytime courses in Lompoc
  - Zooming in reverse (with students in Zoom and at LVC)
- New Course (GEOG 105, GEOG 115, GEOG 155) offerings:
  - Strategies of success for enrollment
  - Hiring additional part-time instructor(s)
- Trends:
  - Rick suggested taking a look at Cal EDD to view local trends

Further Discussions and Suggestions:

- Conduct student survey and assess needs based upon student feedback
- Place technology needs such as classrooms camera and mics for Zoom into PR
- Work on reaching out to students for student success and SuccessNet
  - Jenny sent (in chat) SuccessNet supporting info.
  - Rick suggested email students to discuss success, etc.
  - Jenny sent links for SuccessNet emails that you can send out to multiple students.

Minor corrections:

- Page 15 Staff Needs: get rid of “maybe” DONE
- Edit: “Purchase new..” DONE
- Edit: “New Props…” DONE
- Attach Matriculation: ATTACHED
- Attach CORS: – ATTACHED

Team Member Signatures

_____ Chris Straub, *Geography Faculty and Review Author*

_____ Jenny Schroeder, *Speech Faculty*

_____ Rajni Chaudhari, *Geography Faculty*

_____ Tom Vandermolen, *Psychology Faculty*

_____ Rick Rantz, *Academic Dean*

PLAN OF ACTION – POST-VALIDATION
(Sixth-Year Evaluation)

DEPARTMENT Social and Behavioral Sciences PROGRAM Geography

In preparing this document, refer to the Plan of Action developed by the discipline/program during the self-study, and the recommendations of the Validation Team. Note that while the team should strongly consider the recommendations of the validation team, these are recommendations only. However, the team should provide a rationale when choosing to disregard or modify a validation team recommendation.

Identify the actions the discipline/program plans to take during the next six years. Be as specific as possible and indicate target dates. Additionally, indicate by the number each institutional goal and objective which is addressed by each action plan. (See Institutional Goals and Objectives) The completed final plan should be reviewed by the department as a whole.

Please be sure the signature page is attached.

RECOMMENDATIONS TO IMPROVE DESIRED **STUDENT OUTCOMES** AND IMPROVE STUDENT PERFORMANCE	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Outcomes and Performance • Continue with outcome assessment using SPOL. • Discuss outcome assessment results within program and department. • Reach out to students earlier to help them to succeed. • Outline what is expected of students with greater clarity	Goal C	Fall 2022 and ongoing

RECOMMENDATIONS TO ACCOMMODATE CHANGES IN **STUDENT CHARACTERISTICS**	**Theme/Objective/ Strategy Number AHC from Strategic Plan**	**TARGET DATE**
Enrollment Changes • Continue to reach out to counselors for support with new course enrollment • Review course offering times and change as needed • Review modalities and change as needed • Promote Geography courses and new AA-T	Goal A Goal D Goal E	Spring 2023 and ongoing
Demographic Changes • Monitor student demographic statistics and make appropriate changes when needed • Survey demographics when/if new modalities are implemented	Goal B Goal C Goal D Goal E	Spring 2023 and ongoing

RECOMMENDATIONS THAT REQUIRE ADDITIONAL RESOURCES	Theme/Objective/ Strategy Number AHC from Strategic Plan	TARGET DATE
Facilities • Fix second projector in C-34 • Re-outfit room with new maps, posters, etc. • Seek out a larger classroom if needed for GEOG 115 (Physical Geography Lab) • Consider space at Lompoc campus for hybrid/hyflex course	Goal A Goal C	Fall 2022 and ongoing
Equipment • Begin using lab equipment and assess what may be needed in the future • New or updated laptops for instructors • Hybrid/Hyflex (Zoom) classroom equipment (camera, mic, etc.) • Weather station maintenance and possible new placement • GIS software and IT support • Laptops for students for GIS and other technical based activity • Revisit discussion and acquisition of seismograph (or similar) equipment • Begin researching needed equipment for adding drone technologies/courses	Goal C Goal D Goal E	Fall 2022 and ongoing
Staffing • Hire part-time instructor when needed	Goal C Goal D Goal E	Spring 2023 or when needed

PLAN OF ACTION – Post-Validation

Review and Approval

Plan Prepared By

Rick Rantz Rick Rantz

Thomas Vandermolen Thomas J. VanderMolen

Rajni Chaudhari Rajni Chaudhari

Christopher Straub Chris Straub

Reviewed:

Department Chair* Brian Stokes Brian Stokes

***Signature of Department Chair indicates approval by department of Plan of Action.**

Reviewed:

Dean of Academic Affairs Rick Rantz Date: Nov 2, 2022

Vice President, Academic Affairs **Date:**

Jan 23, 2023

GEOGRAPHY 6YR Program Review S2022

Final Audit Report 2023-01-23

Created:	2022-11-09
By:	Lisa Gutierrez (lisa.gutierrez@hancockcollege.edu)
Status:	Signed
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"GEOGRAPHY 6YR Program Review S2022" History

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SECTION 6
Appendices

Appendix A

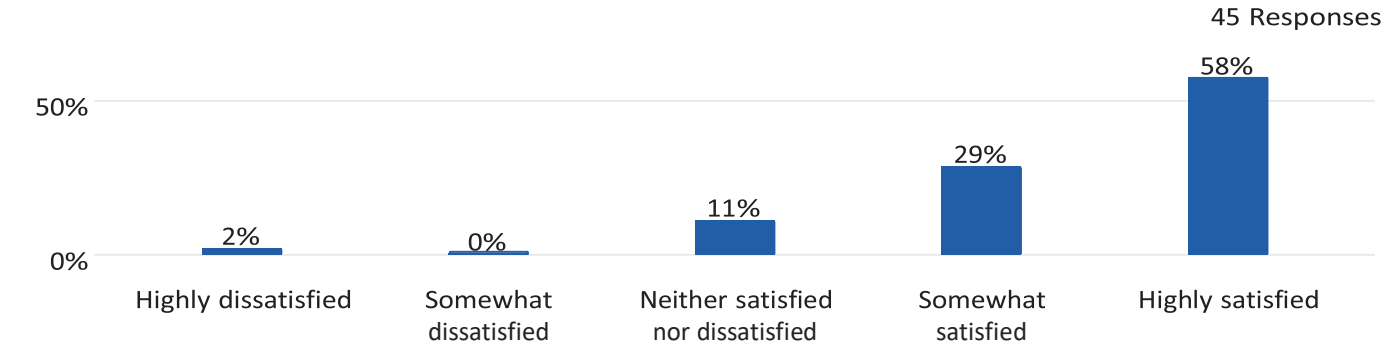
STUDENT DATA STATISTICS

Geography

Spring 2022

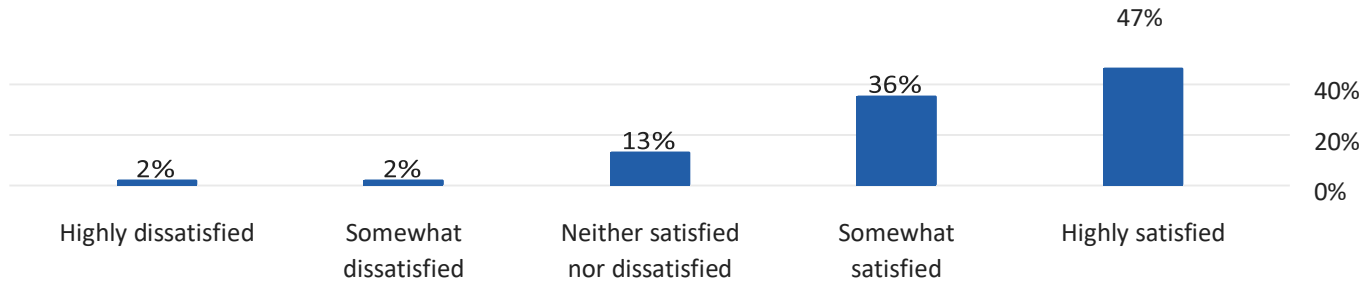
Total number of participants = 45

Q2_1 - Quality of instruction within the program



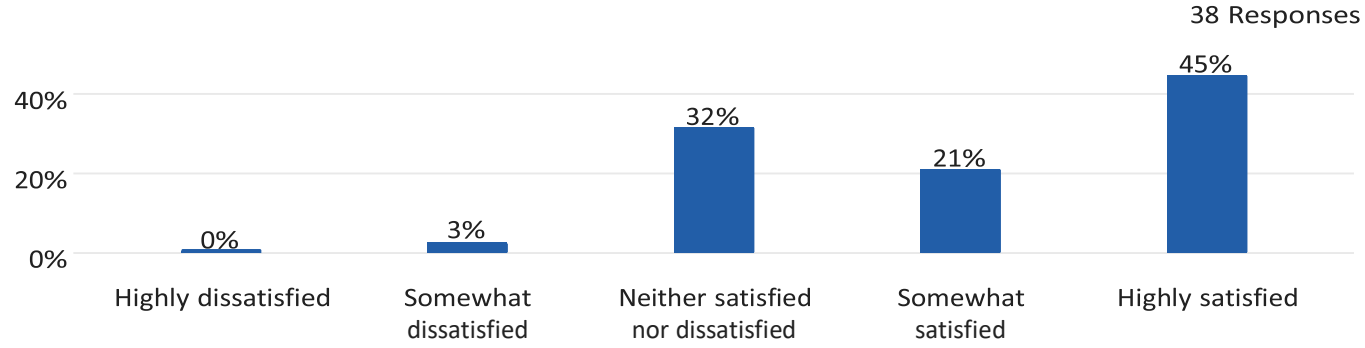
Q2_2 - The way textbooks and other materials used in courses within the program help me learn

45 Responses

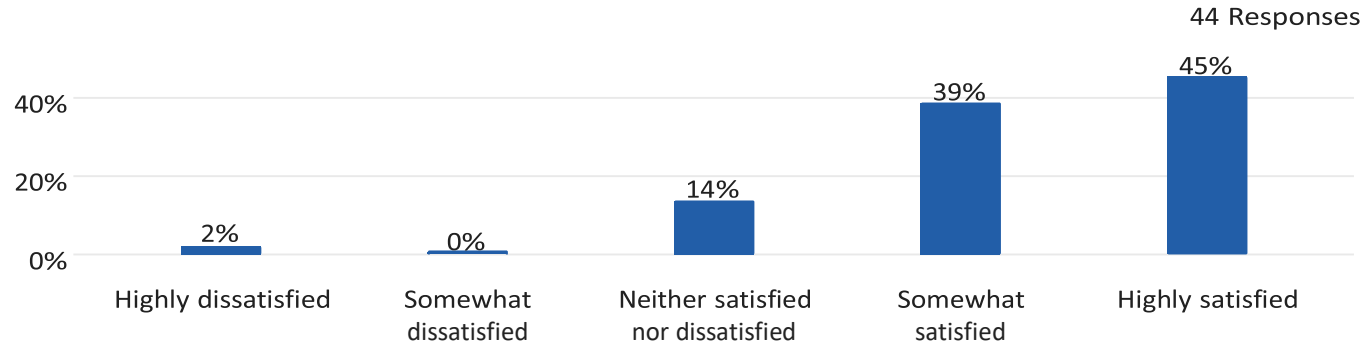


Q2_3 - Advice about the program from counselors

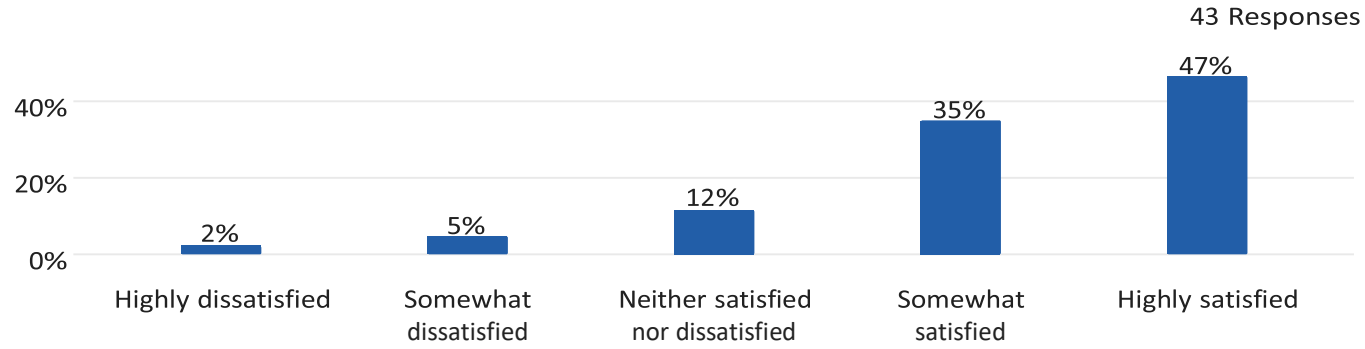
38 Responses



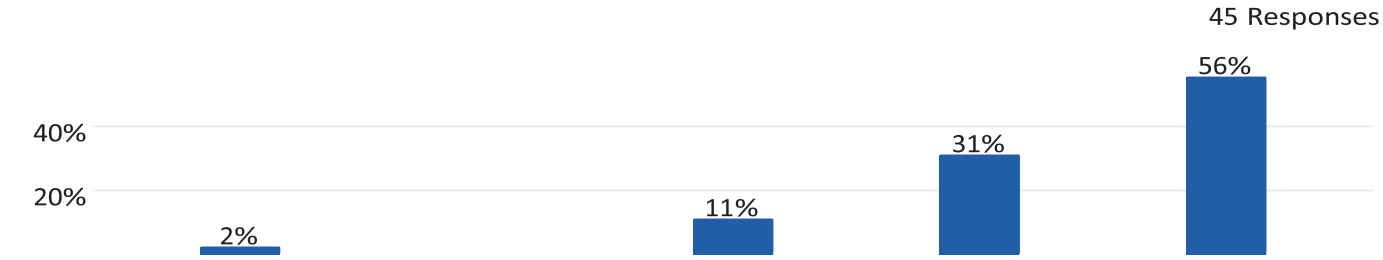
Q2_4 - The way this program meets your educational goals



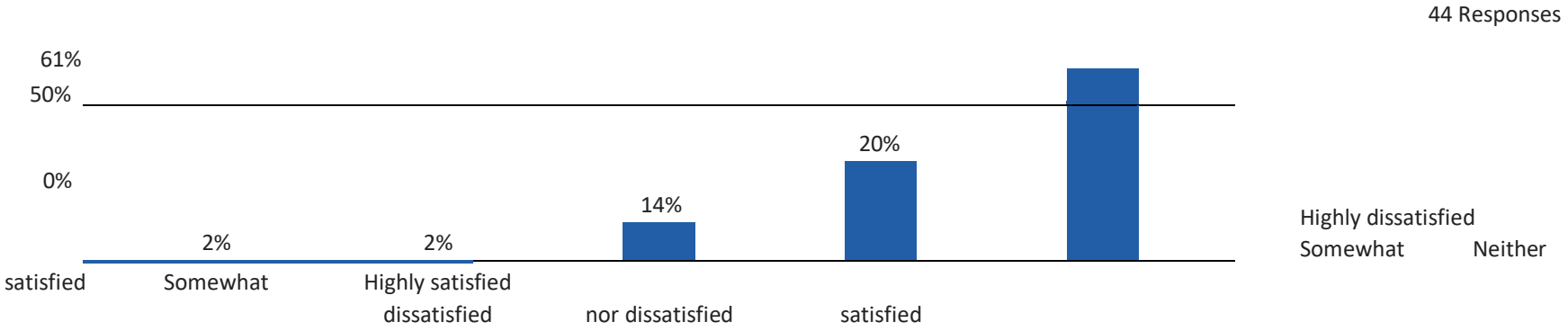
Q2_5 - Contribution towards your intellectual growth



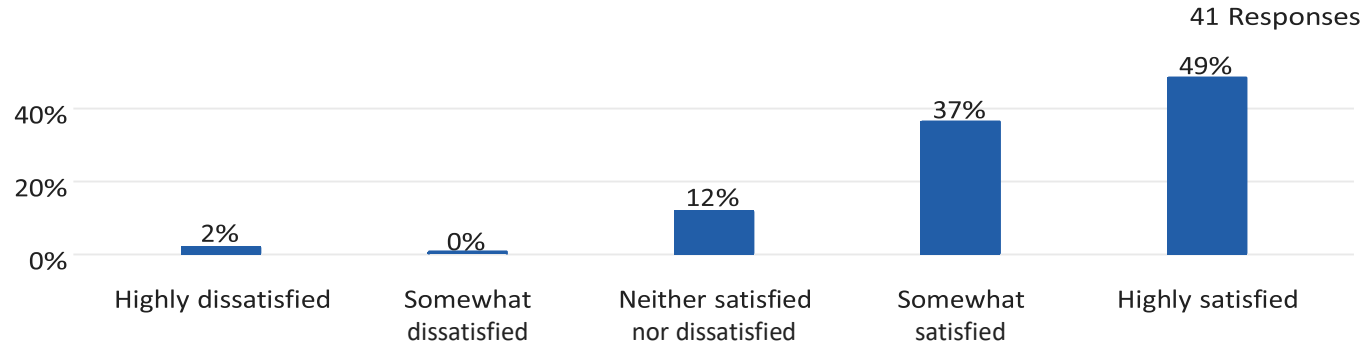
Q2_6 - Clarity of course goals and learning objectives



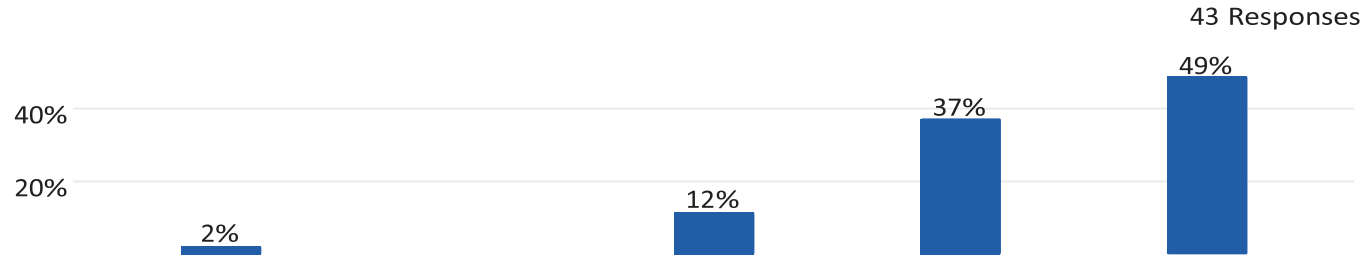
Q2_7 - Feedback and assessment of progress towards learning objectives



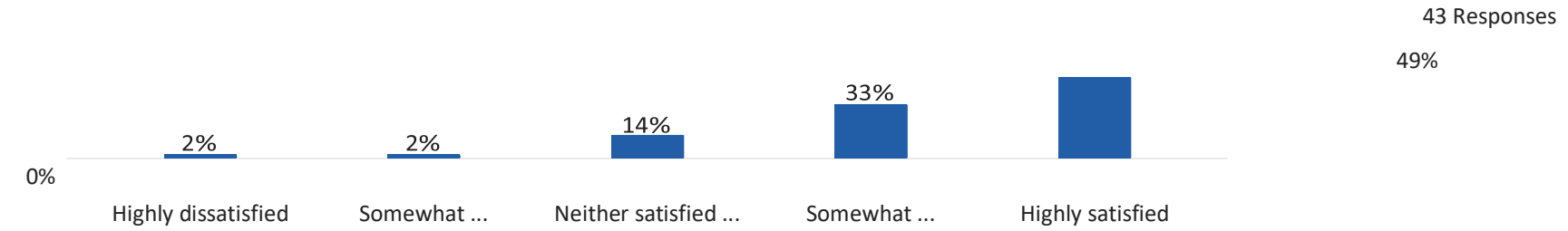
Q2_8 - The availability of courses offered in the Geography program



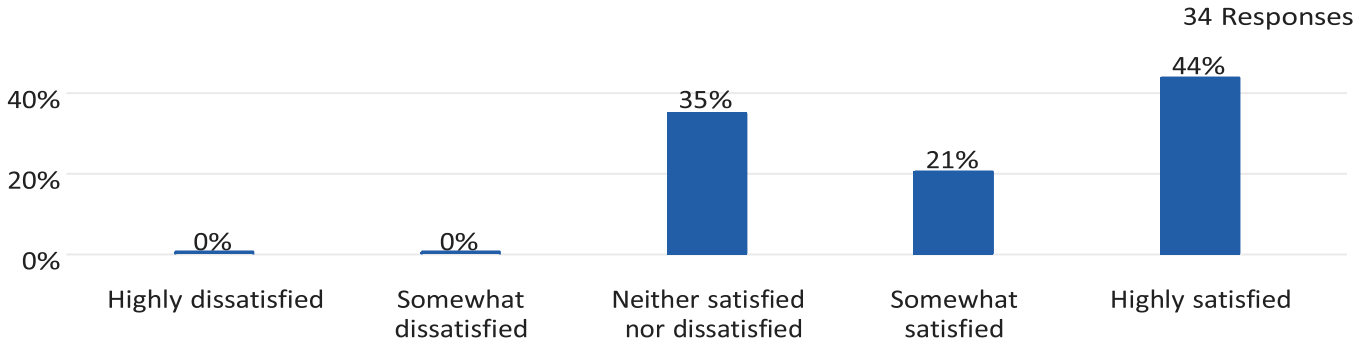
Q2_9 - The content of courses offered in the Geography program



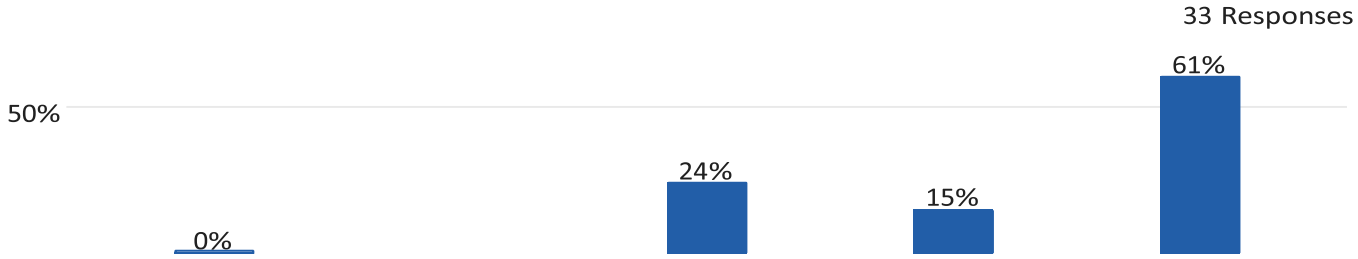
Q2_10 - The coordination of courses offered in the Geography program and courses offered in other departments that may be required for your major



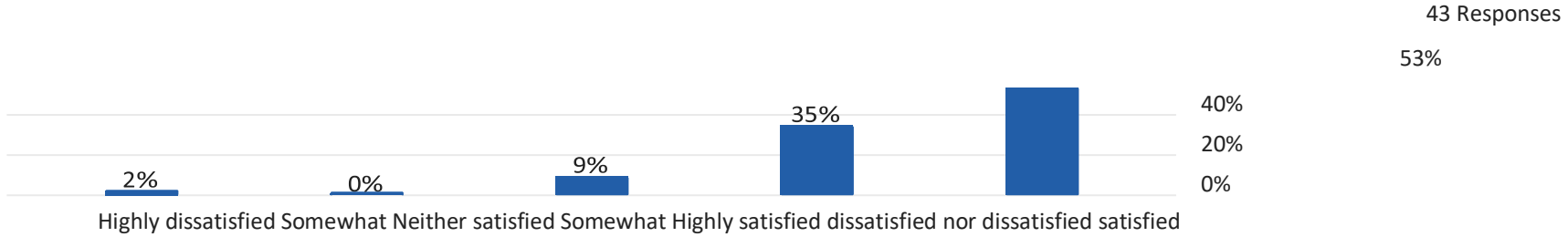
Q2_11 - The physical facilities and space (e.g., classrooms, labs)



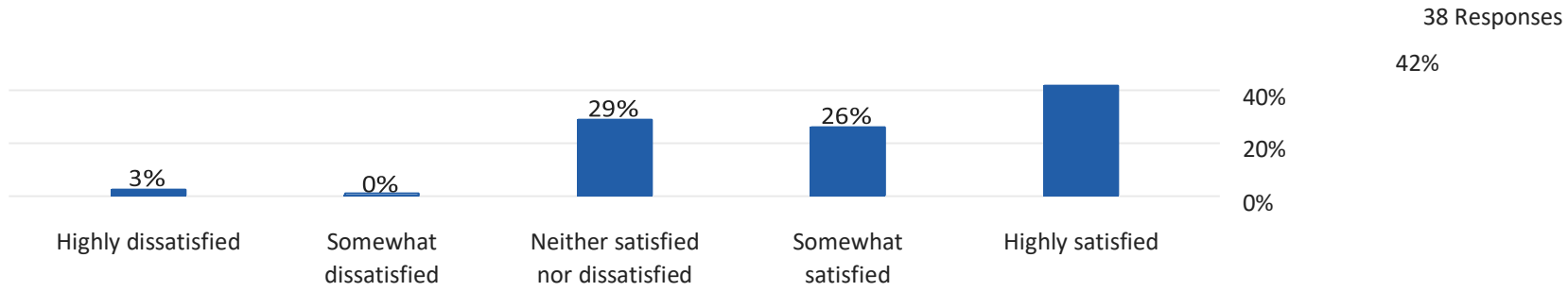
Q2_12 - Instructional equipment (e.g., computers, lab equipment)



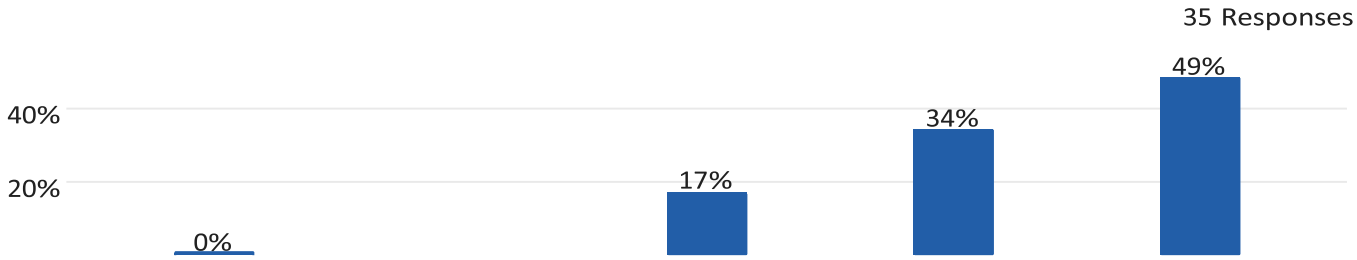
Q2_13 - Presentation of classes via the college's Canvas course management system



Q2_14 - Course assistance through tutorial services (e.g through the Tutorial Center, Math Lab, Writing Center)

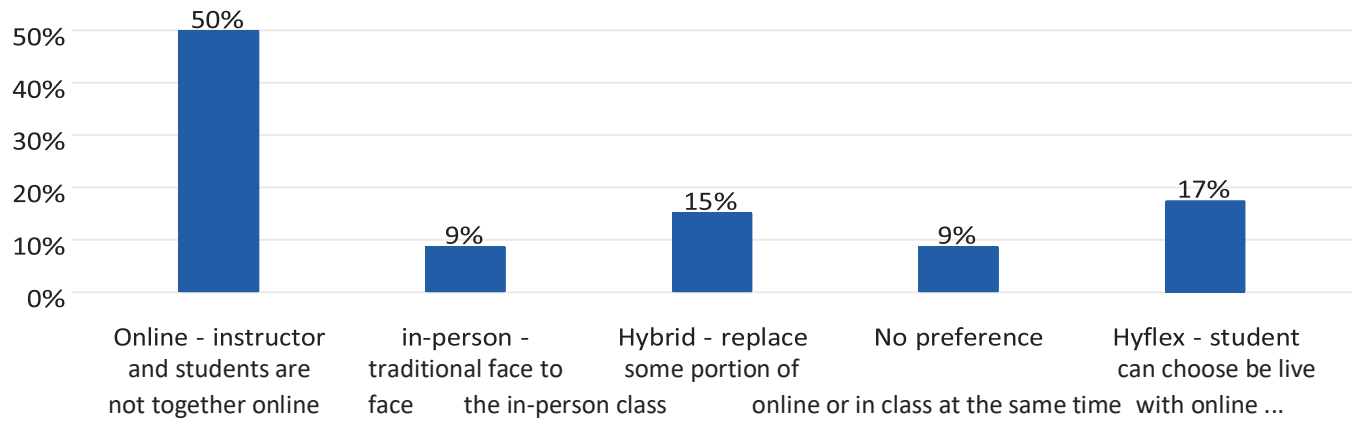


Q2_15 - Availability of appropriate resources in the libraries



Q23 - Which type of course format would you most likely enroll in for Geography courses?

46 Responses



Q58 - What kind of work/career are you interested in pursuing?

What kind of work/career are you interested in pursuing?

psychology

biomedical engineering

I am pursuing to be a K-12 teacher.

social work or nursing

I am very interested in majoring in business analyst or business management.

Entrepreneur/business.

Social work

Administration of Justice

I am interested in pursuing a career in law enforcement.

I'm a nurse

Teaching

Sports Psychology

Criminal Justice

Mental health.

Psychology - Mental health therapist

Sociology.

Child psychologist

As of right now I am interested child development and not sure what industry of child development. I am sort of interested in teaching but have thought about it for a while and I have mixed feelings now.

I'm trying to get a welding certificate

Engineering

My major is Human Services-General

Welding, its my major. If that does not work I will find something else that related to welding

criminal justice

Sociology.

Social Work

Computer Science / Early Education

Undecided. Major is in Liberal Arts: Social and Behavioral Sciences

Business Administration career

Sociology Major.

Early Childhood Development / special Education

English professor

Restaurant or franchise

Liberal studies

Appendix B

COURSE OUTLINES

Board Approval: 05/09/1996
PCA Established: 12/11/2018
DL Conversion: 12/13/2005
Date Reviewed: Fall 2018
Catalog Year: 2019 - 2020

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 101 **Catalog Course Title:** Physical Geography **Banner Course Title:** Physical Geography

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	3.000	48.0 - 54.0	
Lab	0.000	0.0 - 0.0	
Outside-of-Class Hours	6.000	96.0 - 108.0	
Total Student Learning Hours	9.0	144.0 - 162.0	3.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated
0

Grading Method
Letter Grade or Pass/No Pass

Requisites

Advisories
ENGL 101 Freshman Composition: Exposition

Entrance Skills

Upon entering this course, the student should be able to:

ENGL 101 - Freshman Composition: Exposition

- learn to read critically and to perceive the significance and meaning between structure and content in texts of varying lengths think critically about their own ideas, beliefs, and assumptions as they examine and compare those of different
- writers. improve writing skills and techniques. effectively interact and communicate with varied audiences from a rhetorical and thematic perspective.
- conduct research effectively including investigation, collection, evaluation, and documentation, and present the
- findings in acceptable written form. access and use information ethically and effectively.

Catalog Description

An introduction to the earth's physical geography, addressing the origins, patterns and interconnections of weather/climate, water, landforms, living systems and human culture.

Course Content

Lecture

1. The Earth-Sun geometry including its importance to environmental patterns and processes.
2. The processes found within Earth's subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).
3. The global distribution and classification of the world's major climates, ecosystems, and physiographic (landform) features.
4. The basic tools of geographic inquiry including analysis of spatial data on maps, charts, and graphs.
5. Basic concepts of physical geography in the analysis of real-world variations in environmental patterns.
6. The relationship between human activity and the physical landscape.

Course Objectives

At the end of the course, the student will be able to:

1. demonstrate an understanding of the global distribution and classification of the world's major climates, ecosystems, and physiographic (landform) features.
2. demonstrate an understanding of the relationship between human activity and the physical landscape.
3. demonstrate an understanding of the basic tools of geographic inquiry including analysis of spatial data on maps, charts, and graphs.
4. demonstrate an understanding of the basic concepts of physical geography in the analysis of real-world variations in environmental patterns.
5. demonstrate an understanding of the Earth-Sun geometry including its importance to environmental patterns and processes.
6. demonstrate an understanding of the processes found within Earth's subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).

Methods of Instruction

- **Discussion Lecture**
- **Methods of Instruction Description:**
- Classroom activities will center on "Daily themes" which are followed by PowerPoint presentations and group discussions.

Assignments

- **Outside Assignments**
  1. Homework assignments related to practicing geographic methods; forming sound opinions on issues related to Physical Geography; and exploring the unique features of Earth. 2. Writing assignments that focus on researching topics and issues related to Physical Geography. 3. Preparing for class discussions on daily themes designed to concentrate on characteristics and issues within a specific location.
- **Sample Assignment(s)**
  Writing examples may include: Global Warming; Coastal Erosion; Wetland Conversation; Earthquakes, etc.

Methods of Evaluation

- **Exams/Tests Quizzes Research Projects Papers**
- **Oral Presentation**
- **Group Projects**
- **Class Participation**
- **Class Work**
- **Home Work**

Texts and Other Instructional Materials

Adopted Textbook

1. Christopherson, Robert W. and Birkland, Ginger H. *Geosystems* Edition: 10th edition 2018
2. Online Educational Resource (OER)
3. Gabler, Robert E., James Peterson, L. Michael Trapasso, Dorothy Sack *Physical Geography* Edition: 11th 2017

Supplemental Texts

1. Video - How the Earth Was Made: The Complete Series, The History Channel, 2008-2010.
2. Video - Earth: The Biography, BBC, 2008.
3. Video - Earth Revealed, 26 programs Annenberg PBS, 1992.
4. Video - Nature's Fury, National Geographic, 1994.
5. Video - Planet Earth: The Complete Series, BBC, 2007.
6. Video - Core Meteorology Series, Ambrose Video, 2008.
7. Video - Atmosphere, Climate and Weather, Cambridge Educational Production, 2006.
8. Yanow, Ken, Critically Thinking Physical Geography: A Solution Handbook, BookSurge Publishing, 2006.
9. Pitzl, Gerald, Annual Editions: Geography 23/e, McGraw-Hill/Dushkin, 2009.
10. Seitz, Jhn L., Global Issues, An Introduction, Wiley-Blackwell, 2007.
11. Video - Frozen Planet: The Complete Series, BBC, 2011.

Instructional Materials
None

Student Learning Outcomes

1. GEOG101 SLO1 - Explain and apply the perspective, approach and terminology utilized in geography study.
2. GEOG101 SLO2 - Critically evaluate the relationship between human activity and the physical landscape.
3. GEOG101 SLO3 - Identify and describe the elements and processes of the atmosphere, biosphere, hydrosphere, and lithosphere.
4. GEOG101 SLO4 - Apply scientific reasoning and analysis to spatial distributions.

5. GEOG101 SLO5 - Demonstrate an understanding of geographic and scientific principles, tools and methodology.
6. GEOG101 SLO6 - Express in writing the results of scientific inquiry, analysis and evaluation.

Distance Education

Delivery Methods

- DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Telephone Contacts
2. Other (please specify)
   Office hours Discussion Board
3. Email Communication (group and/or individual communications)

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

- Assignments will be submitted primarily through the district Course Management System(CMS). Students can
- submit multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
- Students can also submit assignments through district email or the messaging service in the district CMS. The district
- CMS contains many tools instructors can use to facilitate different assignment types. Instructors may use the
- assignments tool and / or discussion tool to facilitate student to student interaction.
  Instructors may use the feedback features of the district CMS to facilitate instructor - initiated contact. When
- appropriate, instructors may use group assignments.
-

Possible tools employed to adjust for ERT / DE course may include, but not limited to:

- District CMS assignments
- Threaded discussion forums
- District Email
- District CMS messaging service
- Announcements in the district CMS
- Feedback of student work through use of Speed Grader or other tools
- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
- This course will be able to use interactive quizzes which allow for automated assessment performance for certain question types and the use of the mastery gradebook.
- If the assessment requires necessary student authentication, the instructor can employ machine automated proctoring services available through the current district CMS.
- Use of these features (quizzes, discussions, and assignments) provide the necessary tools to evaluate student progress toward the objectives of the course.

Strategies to Make Course Accessible to Disabled Students
All courses must meet the WCAG 2.0 level AA standards including but not limited to the items listed below:

1. Images, graphs, charts or animation. A text equivalent or alt text is provided for every non-text element, including all types of images and animated objects. This will enable a screen reader to read the text equivalent to a blind student.
2. Multimedia. Equivalent alternatives for any multimedia presentation are synchronized with the presentation. Videos and live audio must be closed captioned. For archived audio, a transcript maybe sufficient.
3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
5. Outside webpages and links
6. Ensure that all webpages meet 508 standards by testing through Cynthia Says. Follow the Accessibility Guidelines WCAG 2.0 Level AA
7. Ensure links make sense out of context. Every link should make sense if the link text is read by itself. Screen reader users may choose to read only the links on a web page. Certain phrases like "click here" and "more" must be avoided.
8. Applications, software, and outside learning systems. All required outside applications and/or learning systems (e.g MyMathLab, Aleks, etc.) are accessible OR an alternative is provided. Test with WebAIM WAVE toolbar.
9. Avoid text images. Images of text are avoided, OR an alternative is provided. (Examples of images of text are PDFs made from scanned pages, and word art.)
10. Color contrast. Text and background color have sufficient contrast on all documents, PowerPoints, and webpages both inside and outside of the LMS.
11. Text objects. If the shape, color, or styling of any text object conveys information, that information is conveyed in plain text as well.
12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students
Instructors will provide the appropriate AHC student services when they communicate special needs via email, phone or in person. Instructors will also provide the appropriate links and instructions within the course syllabus. **Additional Comments**
N/A

Generated on: 1/27/2022 12:00:29 PM

Board Approval: 01/18/2011 **PCA**
Established:
DL Conversion: 06/15/2010
Date Reviewed: Fall 2016
Catalog Year: 2017 - 2018

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 102
Catalog Course Title: Human Geography
Banner Course Title: Human Geography

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	3.000	48.0 - 54.0	
Lab	0.000	0.0 - 0.0	
Outside-of-Class Hours	6.000	96.0 - 108.0	
Total Student Learning Hours	9.0	144.0 - 162.0	3.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated None

Grading Method
Letter Grade or Pass/No Pass

Requisites

Advisories
ENGL 514 Writing Skills 4

Entrance Skills

Upon entering this course, the student should be able to:

ENGL 514 - Writing Skills 4

- write essays, including argumentation, that integrate and synthesize course readings and are clearly focused, fully developed, and logically organized.
- produce in-class or timed essays that illustrate organizing, composing, revising, editing, and timemanagement skills. analyze and paraphrase multiple texts: drawing conclusions, making generalizations, and analyzing arguments.
- write essays to specific audiences using an appropriate voice for those readers. formulate an essay with a clear thesis statement or central idea. organize essays in which the topic sentences and paragraph details support the thesis.
- construct sentences that demonstrate control of sentence variety and effective word choice, using mostly college-level diction. use strategies to accommodate and learn unfamiliar vocabulary. proofread and edit essays so that they exhibit few gross errors in English grammar, use, or punctuation. identify and evaluate supporting evidence. follow prescribed documentation methods and properly use outside sources.

Catalog Description

A historical perspective is used to explore our human role in shaping the earth's cultural landscapes.
Globalization and cultural diversity are course themes. Topics include population and migration; the geography of language, religion, and social customs; economic forms; settlements; and resource problems.

Course Content

Lecture

1. Introduction to Geography
2. Population
3. Migration
4. Popular and Folk Culture
5. Language
6. Religion
7. Ethnicity, Race, Gender
8. Political Geography
9. Urban Geography
10. Development
11. Agriculture
12. Industry and Services
13. Human/Environment/Resource Issues
14. Course Summary

Course Objectives

At the end of the course, the student will be able to:

1. explain the methods of research, inquiry and theory in human geographic study.
2. evaluate the relevant perspectives, themes and terminology in cultural geography.
3. describe the major spatial processes affecting human geography, such as globalization, nationalism, supranationalism and multiculturalism.
4. explain how spatial variations in culture contribute to different values, expression and views of other cultures.
5. identify regional cultural differences and explain their origins, diffusion and spatial distribution.
6. describe and evaluate the relationship of physical geography to cultural characteristics of peoples, and how culture correlates with perspectives on nature and environmental issues.
7. critically analyze information related to current regional and global cultural issues, and propose solutions and resolutions.

Methods of Instruction

- **Discussion**
- **Lecture**

Assignments

- **Other Assignments**
  1. Additional reading assignments, predominantly of current events and issues, usually requiring written summaries. 2. Short research papers to apply and reinforce geographic concepts. 3. Reflective essays on diversity, values and cultural expression. 4. Role play of a person in another culture, as a written essay and in-class portrayal. EXAMPLE OF OUTSIDE ASSIGNMENT: LANGUAGE IN CANADA -Use the background in your text, and -Read the following paper, but only sections 1, 2 and 7.
  http://www.frenchteachers.org/general/DOEgrant/Quebec.pdf -Find and include at least one other reputable source. Compose an essay of approximately one page in length addressing the following: 1. What is “Quebecois” and what does it mean to those who are "Quebecois"? 2. Why is the preservation of language viewed as vital to many in Quebec? 3. Describe the spatial distribution and official status of the languages of Canada.

Methods of Evaluation

- **Exams/Tests**
- **Quizzes**
- **Research Projects**
- **Papers**
- **Oral Presentation**
- **Group Projects**
- **Class Participation**
- **Class Work**
- **Home Work**
- **Writing Requirements Other**

  1. Quizzes and Exams covering text and class material: objective with essay question(s). 2. Homework assignments: Short topical/reflective essays and outside reading summaries. 3. Short research paper on applied special topic. 4. Participation in daily themes. 5. Final exam. ESSAY EXAMPLE: Describe the meaning of "push" and "pull" factors; describe the role these forces have played in recent immigration, legal and illegal, into the United States. Use specific examples to support your conclusions.

Texts and Other Instructional Materials

Adopted Textbook

1. Rubenstein, James M. *Contemporary Human Geography* Edition: 4th 2019
2. Fouberg, Erin H., Alexander B. Murphy, H. J. de Blij *Human Geography: People, Place, and Culture* Edition: 11th 2015

Supplemental Texts

1. World Atlas recommended.
2. National Geographic Society, EarthPulse, Wiley, Special Edition, 2008.
3. Seitz, John L., Global Issues: An Introduction, Wiley-Blackwell, 3rd Edition, 2007.
4. Pitzl, Gerald, Annual Editions: Geography 23/e, McGraw-Hill, 2009.
5. Esposito, John, Susan Tyler Hitchcock, Desmond Tutu, Mpho Tutu, Geography of Religion: Where God Lives, Where Pilgrims Walk, National Geographic, 2006.
6. Adams, J. Michael, Angelo Carfagna, Coming of Age in a Globalized World: The Next Generation, Kumarian Press, 2006.

Instructional Materials
None

Student Learning Outcomes

1. GEOG102 SLO1 - Explain and apply the perspectives, approaches and terminology utilized in geography study.
2. GEOG102 SLO2 - Demonstrate knowledge and application of cultural origins and differences, and apply spatial analysis skills to distributions of cultural elements.
3. GEOG102 SLO3 - Correlate cultural phenomena to local and regional characteristics of the physical landscape.
4. GEOG102 SLO4 - Integrate historical information with cultural spatial distributions.
5. GEOG102 SLO5 - Synthesize and critically analyze information related to current regional and global cultural issues.
6. GEOG102 SLO6 - Express an understanding of differing cultural perspectives on issues and conflicts.

Distance Education

Delivery Methods

- DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Email Communication (group and/or individual communications)
2. Telephone Contacts
3. Other (please specify)
   Office hours Discussion Board

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

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- multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
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- CMS contains many tools instructors can use to facilitate different assignment types. Instructors may use the
- assignments tool and / or discussion tool to facilitate student to student interaction.
  Instructors may use the feedback features of the district CMS to facilitate instructor - initiated contact. When
- appropriate, instructors may use group assignments.
-

Possible tools employed to adjust for ERT / DE course may include, but not limited to:

- District CMS assignments
- Threaded discussion forums
- District Email
- District CMS messaging service
- Announcements in the district CMS
- Feedback of student work through use of Speed Grader or other tools
- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
- This course will be able to use interactive quizzes which allow for automated assessment performance for certain question types and the use of the mastery gradebook.
- If the assessment requires necessary student authentication, the instructor can employ machine automated proctoring services available through the current district CMS.
- Use of these features (quizzes, discussions, and assignments) provide the necessary tools to evaluate student progress toward the objectives of the course.

Strategies to Make Course Accessible to Disabled Students
All courses must meet the WCAG 2.0 level AA standards including but not limited to the items listed below:

1. Images, graphs, charts or animation. A text equivalent or alt text is provided for every non-text element, including all types of images and animated objects. This will enable a screen reader to read the text equivalent to a blind student.

2. Multimedia. Equivalent alternatives for any multimedia presentation are synchronized with the presentation. Videos and live audio must be closed captioned. For archived audio, a transcript maybe sufficient.
3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
5. Outside webpages and links
6. Ensure that all webpages meet 508 standards by testing through Cynthia Says. Follow the Accessibility Guidelines WCAG 2.0 Level AA
7. Ensure links make sense out of context. Every link should make sense if the link text is read by itself. Screen reader users may choose to read only the links on a web page. Certain phrases like "click here" and "more" must be avoided.
8. Applications, software, and outside learning systems. All required outside applications and/or learning systems (e.g MyMathLab, Aleks, etc.) are accessible OR an alternative is provided. Test with WebAIM WAVE toolbar.
9. Avoid text images. Images of text are avoided, OR an alternative is provided. (Examples of images of text are PDFs made from scanned pages, and word art.)
10. Color contrast. Text and background color have sufficient contrast on all documents, PowerPoints, and webpages both inside and outside of the LMS.
11. Text objects. If the shape, color, or styling of any text object conveys information, that information is conveyed in plain text as well.
12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students

Instructors will give the appropriate AHC student services when they communicate special needs via email, phone or in person. Instructors will also provide appropriated links and instructions clearly outlined within the course syllabus.

Additional Comments

N/A

Generated on: 1/27/2022 12:05:44 PM

Board Approval: 01/18/2011 **PCA**
Established:
DL Conversion: 06/15/2010
Date Reviewed: Fall 2016
Catalog Year: 2017 - 2018

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)

Department: Social & Behavioral Sciences

Prefix and Number: GEOG 103

Catalog Course Title: World Regional Geography

Banner Course Title: World Regional Geography

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units

Lecture	3.000	48.0 - 54.0	
Lab	0.000	0.0 - 0.0	
Outside-of-Class Hours	6.000	96.0 - 108.0	
Total Student Learning Hours	9.0	144.0 - 162.0	3.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated None

Grading Method
Letter Grade or Pass/No Pass

Requisites

Advisories
ENGL 513 Writing Skills 3

Entrance Skills

Upon entering this course, the student should be able to:

ENGL 513 - Writing Skills 3

- write coherent essays and paragraphs about course readings and/or other subjects. summarize, analyze, and
- make a simple synthesis between two readings or ideas.
- complete in-class writings that illustrate some organizing, composing, revising, editing, and timemanagement skills. read and summarize short expository texts for the purpose of writing and discussion. distinguish between
- fact and opinion and identify author's purpose and tone. direct writings to a specific audience using an
- appropriate voice. construct writings with a central idea and supporting paragraphs. write paragraphs with
- supporting sentences that relate to the topic sentence. recognize and begin to apply sentence variety and
- appropriate word choice.
- use vocabulary strategies. proofread and edit essays for public presentation. identify
- some errors in English grammar, usage, and punctuation. use outside sources and begin
- to use direct quotations from those sources. differentiate between one’s own ideas and
- those of others.
-

Catalog Description

A study of the world's major geographic regions. The course focuses on the increasing globalization of the world and a movement towards greater emphasis on cultural diversity.

Course Content

Lecture

1. Introduction to Geography and Regional Geographical Study

2. Europe
3. Russia and Neighboring Countries
4. East Asia
5. Southeast Asia
6. South Asia
7. Southwest Asia and Northern Africa
8. Subsaharan Africa
9. Australia, New Zealand, Oceania, Antarctica
10. Middle America, Caribbean
11. South America
12. North America

Course Objectives

At the end of the course, the student will be able to:

1. explain and utilize the approach and themes of research and inquiry in geographic study and analysis.
2. define and use geographic terminology relevant to each geographic realm.
3. utilize spatial skills to explain regional cultural differences, including their origins, distributions and significance.
4. describe the physical geography of each region and its relationship to the human landscape.
5. apply spatial analysis skills to regional geographic distributions.
6. critically analyze and synthesize information related to current regional and global issues/topics, and demonstrate an understanding of the role of personal and societal perspectives.
7. identify significant physical and cultural geographical locations.

Methods of Instruction

- **Discussion**
- **Lecture**

Assignments

- **Other Assignments**
  1. Completion of blank outline maps for each region. 2. Short paper on a special regional topic. 3. Geographic summaries of videos of regions/countries. 4. Essays on issues of regional/global significance. EXAMPLE OF OUTSIDE ASSIGNMENT: The Rise of China After centuries of isolation, China is quickly becoming a global power economically, politically and militarily. Compose an essay not to exceed two typed pages, utilizing and citing legitimate sources, that addresses the following: 1. What are China's economic advantages of site and situation that account for its economic success? Include an explanation and discussion of "Open Coastal Areas" and "Special Economic Zones."

Methods of Evaluation

- **Exams/Tests Quizzes Research Projects Papers Oral Presentation Group Projects Class Participation Class**
- **Work Home Work Writing Requirements Other**
- 1. Unit exams and quizzes. 2. Special topic paper. 3. Homework: current issues. 4. Video summaries. 5. Final exam.
- Essay example: Describe the current spatial distribution of population in South America and its relationship to the country's physical geography.

Texts and Other Instructional Materials

Adopted Textbook

1. White, George W., Joseph P. Dymond, Elizabeth Chacko, Michael Bradshaw *Essentials of World Regional Geography* Edition: 3rd 2013
2. Rowntree, Lester, Martin Lewis, Marie Price, William Wyckoff *Globalization and Diversity: Geography of a Changing World* Edition: 6th 2019

Supplemental Texts

1. National Geographic Society, Complete National Geographic - Every Issue Since 1888, DVD, 2009.
2. A package of blank outline maps for place location study.
3. A world atlas is recommended.
4. National Geographic Society, EarthPulse, Wiley, Special Edition, 2008.
5. Seitz, John L. Global Issues: An Introduction. Wiley-Blackwell. 3rd Edition. 2007.
6. Pitzl, Gerald. Annual Editions: Geography 23/e. McGraw-Hill. 2009.

Instructional Materials
None

Student Learning Outcomes

1. GEOG103 SLO1 - Explain and apply the perspectives, approaches and terminology utilized in geography study.
2. GEOG103 SLO2 - Express understanding of regional cultural differences and perspectives, including their origins and distributions.
3. GEOG103 SLO3 - Describe the physical geography of each region and its relationship to the human landscape.
4. GEOG103 SLO4 - Apply spatial analysis skills to regional geographic distributions.
5. GEOG103 SLO5 - Synthesize and critically analyze information related to current regional and global issues.
6. GEOG103 SLO6 - Identify significant physical and cultural geographical locations.

Distance Education

Delivery Methods

- DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Email Communication (group and/or individual communications)
2. Telephone Contacts
3. Other (please specify)
   Office hours Discussion Board

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

- Assignments will be submitted primarily through the district Course Management System(CMS). Students can submit
- multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
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  Instructors may use the feedback features of the district CMS to facilitate instructor - initiated contact. When appropriate,
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- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
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12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students
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Additional Comments
N/A

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Board Approval: 12/13/2016
PCA Established: 12/13/2016
DL Conversion: 12/10/2019
Date Reviewed: Fall 2021
Catalog Year: 2022 - 2023

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 105
Catalog Course Title: Geography of California
Banner Course Title: Geography of California

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	3.000	48.0 - 54.0	
Lab	0.000	0.0 - 0.0	
Outside-of-Class Hours	6.000	96.0 - 108.0	
Total Student Learning Hours	9.0	144.0 - 162.0	3.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated
0

Grading Method
Letter Grade or Pass/No Pass

Requisites

Advisories
ENGL 101 Freshman Composition: Exposition

Entrance Skills

Upon entering this course, the student should be able to:

ENGL 101 - Freshman Composition: Exposition

- learn to read critically and to perceive the significance and meaning between structure and content in texts of varying lengths think critically about their own ideas, beliefs, and assumptions as they examine and compare those of different
- writers. improve writing skills and techniques. effectively interact and communicate with varied audiences from a rhetorical and thematic perspective.
- conduct research effectively including investigation, collection, evaluation, and documentation, and present the
- findings in acceptable written form. access and use information ethically and effectively. identify both discipline specific
- and other information technology resources.

Catalog Description

A survey of the geography of California, including the physical environment, weather and climate, population and migration, industry and agriculture, and major cultural patterns. Themes will include: cultural diversity, economic and political trends, resource issues, and the human-environment interaction.

Course Content

Lecture

1. Understanding the basics of California (location, size, shape, and history)
2. The physical geography of California
    a. Landforms: identify and differentiate various landforms (coastal, desert, wetland, mountainous, etc.)
    b. Weather and Climate: understand climate and weather patterns throughout California.
    c. Biogeography: analyze ecosystems (past and present) within California.
    d. Geology: historical processes; current geology and geomorphology; soil overview including arable land.
    e. Water resources: understand the hydrosphere within California including the natural and manmade movement of water as a human resource.
    f. Natural Resources: identify California's historical and current natural resources.
3. The human geography of California
    a. Population and distribution: study of the growth factors and migration patterns.
    b. Energy Resources: past, present, and future energy use and resources.
    c. Economic activities: primary industries including agriculture and tech upon local and global stages.
    d. Cultural landscapes: analyze ethnic groups, cultures, and lifestyles within California.
    e. Political Landscapes: a brief historical and current view of how California acts politically.

Course Objectives

At the end of the course, the student will be able to:

1. examine the physical processes (including endogenic and exogenic forces) which shape the natural environments of California. Identify key characteristics of the lithosphere within California.
2. analyze the weather and climate patterns within California. Identify and map various climate zones and categories found within California.
3. recognize and identify basic biogeographic zones within California including the various marine and continental environments.
4. analyze and be able to identify major urban areas of California. Understand historical and current populations within California along with past and present migration trends. Compare patterns of urban development in the state and evaluate current and future trends.
5. identify key cultural aspects of California including ethnic trends, socioeconomic trends, and lifestyle trends. Project future cultural trends based on a clear understanding of current trends and cultural landscape.
6. understand the basic economic forces within California. Evaluate the origins and development of agriculture and industry in California.
7. analyze the use of natural resources in the state, (including renewable resources such as solar, wind and geothermal) and particularly the role of water in the development of both the economic and cultural landscapes of California.

Methods of Instruction

- **Discussion**
- **Lecture**

Assignments

- **In-Class Assignments**
  Map and place location assignments.
- **Outside Assignments**
  1. Homework assignments related to practicing geographic methods; forming sound opinions on issues related to the Geography of California; and exploring the unique physical and cultural features of the state. 2. Writing assignments that focus on researching topics and issues related to the Geography of California. 3. Preparing for class discussions on daily themes designed to concentrate on characteristics and issues within specific locations throughout California .

Methods of Evaluation

- **Exams/Tests**
- **Quizzes**
- **Papers**
- **Class Participation**
- **Writing Requirements**

Texts and Other Instructional Materials

Adopted Textbook

1. Selby, William A. *Rediscovering the Golden State: California Geography* Edition: 4th 2018

Supplemental Texts

1. Miller, Crane S. and Richard S. Hyslop. (1999). California: The Geography of Diversity.

Instructional Materials
None

Student Learning Outcomes

1. GEOG 105 SLO 1 - Identify and describe the major physical patterns found in California, including landform provinces, historical geology, weather and climate patterns and processes, and vegetation zones.
2. GEOG 105 SLO 2 - Describe and evaluate the major themes of contemporary California culture, particularly as they relate to each individual student, such as the theme of the historical geography of California as a multi-racial place.
3. GEOG 105 SLO 3 - Apply major concepts of physical and human geography to California, including concepts of environmental perception, location (site and situation), accessibility, and central place theory.

Distance Education

Delivery Methods

- Internet

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Discussion Board Office Hours
2. Email Communication (group and/or individual communications)

   As Needed.

3. Other (please specify)

   Office hours Discussion Board

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

- Assignments will be submitted primarily through the district Course Management System(CMS). Students can
- submit multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
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- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
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2. Multimedia. Equivalent alternatives for any multimedia presentation are synchronized with the presentation. Videos and live audio must be closed captioned. For archived audio, a transcript maybe sufficient.
3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
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12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students
Instructors will provide appropriate links and instructions clearly outlined within the course syllabus. Instructors will give the appropriate AHC student services when they communicate special needs via email, phone or in person.
Additional Comments
N/A

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Board Approval: 12/13/2016
PCA Established: 12/13/2016
DL Conversion: 05/14/2019
Date Reviewed: Spring 2022
Catalog Year: 2022 - 2023

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 110
Catalog Course Title: Introduction To Weather and Climate
Banner Course Title: Introduction To Weather and Climate

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	3.000	48.0 - 54.0	
Lab	0.000	0.0 - 0.0	
Outside-of-Class Hours	6.000	96.0 - 108.0	
Total Student Learning Hours	9.0	144.0 - 162.0	3.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated None

Grading Method
Letter Grade or Pass/No Pass

Requisites

Advisories
GEOG 101 Physical Geography

Entrance Skills

Upon entering this course, the student should be able to:

GEOG 101 - Physical Geography

- demonstrate an understanding of the relationship between human activity and the physical landscape.
- demonstrate an understanding of the basic tools of geographic inquiry including analysis of spatial data on maps, charts, and graphs.
- demonstrate an understanding of the basic concepts of physical geography in the analysis of real-world variations in environmental patterns.
- demonstrate an understanding of the Earth-Sun geometry including its importance to environmental patterns and processes.

Catalog Description

An introduction to the physical processes underlying atmospheric and weather phenomena, including global climate change and the impacts of various weather and climate phenomena on society. Topics include atmospheric structure and composition, solar radiation and energy balances, temperature, seasonal changes, atmospheric moisture, clouds and fog, precipitation, air pressure, winds, air masses and fronts, cyclones, dynamics of the atmosphere and ocean, weather forecasting, climate and climate change.

Course Content

Lecture

1. **Energy and Mass**
    a. Composition and Structure of the Atmosphere
    b. Solar Radiation and the Seasons
    c. Energy Balance and Temperature
    d. Atmospheric Pressure and Wind
2. **Water in the Atmosphere**
    a. Atmospheric Moisture
    b. Cloud Development and Forms
    c. Precipitation Processes
3. **Distribution and Movement of Air**
    a. Atmospheric Circulation and Pressure Distributions
    b. Air Masses and Fronts
4. **Disturbances**
    a. Mid-latitude Cyclones
    b. Thunderstorms and Tornadoes
    c. Tropical Storms and Hurricanes
    d. Weather forecasting and analysis
5. **Dynamics of the Atmosphere and Ocean**
    a. Circulation Patterns
    b. Wave characteristics and patterns
6. **Climate and Climate Change**
    a. Earth's Climates and their distribution
    b. Climate Changes and their causes
7. **Past climates and projected future changes**

Course Objectives

At the end of the course, the student will be able to:

1. explain the energy balance of the Earth-atmosphere system.
2. describe forces that cause atmospheric motion and resultant pressure patterns, wind systems and global circulation.
3. describe moisture, clouds and precipitation processes, and their distributions.

4. explain weather systems, distribution and extreme events.
5. classify and interpret atmospheric data through weather maps, radar imagery and satellite data.
6. describe global climate distribution and causes and implications of climate change.

Methods of Instruction

- **Demonstration**
- **Discussion**
- **Lecture**

Assignments

- **Outside Assignments**
  Students will be required to complete a variety of assignments that supplement and apply the topics covered in class. They will include: 1. Homework assignments related to practicing meteorology and climatology methods; forming sound opinions on issues related to human impacts on weather and climate; and exploring unique weather and climate phenomenon. 2. Writing assignments that focus on researching topics and issues related to weather and climate, meteorology, climatology, and climate change. 3. Preparing for class discussions on daily themes designed to concentrate on characteristics and issues within a specific location.
- **Other Assignments**
  1. Homework assignments related to practicing meteorology and climatology methods; forming sound opinions on issues related to human impacts on weather and climate; and exploring unique weather and climate phenomenon.

Methods of Evaluation

- **Exams/Tests Quizzes Research Projects Papers Oral Presentation Projects Group Projects Class Participation**
- **Class Work Home Work Writing Requirements Other**
- 1. Assigned homework problems. 2. Unit exams and a final exam, objective questions and essays. 3. Weekly
- quizzes. 4. Short topical paper (including citation and analysis of sources). Sample essay questions: 1. Describe the
- difference between sensible heat transfer (both convection and conduction) and latent heat transfer. How is energy
- (heat) transferred from one place to another in each case? How are these processes expressed in the earth-
- atmosphere energy balance? Give examples. 2. Name and describe three types of local wind systems (e.g., the
- Santa Ana wind). How do they form, and what drives them? 3. Compare and contrast any two climate zones.
- Especially, compare temperature and moisture conditions for both summer and winter seasons. 4. Draw a simple
- sketch map of the earth on which you clearly indicate and label the major planetary winds. 5. Describe the seasonal
- pressure patterns that produce the Asian monsoon (both winds and precipitation). Contrast January and July
- conditions.

Texts and Other Instructional Materials

Adopted Textbook

1. Edward Aguado, James E. Burt *Understanding Weather and Climate* Edition: 7th 2015
2. Ahrens, C. Donald *Meteorology Today* Edition: 11th 2016
3. Lutgens, Frederick K. *The Atmosphere: An Introduction to Meteorology* Edition: 14th 2018

Supplemental Texts

1. Companion lab/exercise manual: American Meteorological Society, Weather Studies Investigations Manual, 2008, (or most current edition available). Oklahoma Climatological Survey, Meteorology Lab Manual, 1st Edition, Brooks Cole, 2006.
2. Williams, Jack, The AMS Weather Book: The Ultimate Guide to American Weather, University of Chicago, 2009.

3. Dunlop, Storm, The Weather Identification Handbook: The Ultimate Guide for Weather Watchers, The Lyons Press, 2003.
4. Dessler, Andrew, The Science and Politics of Global Climate Change, Cambridge University Press, 2010.

Instructional Materials
None

Student Learning Outcomes

1. GEOG 110 SLO 1 - Explain the processes that make up Earth's atmosphere.
2. GEOG 110 SLO 2 - Demonstrate an understanding of the meteorological skills used in weather analysis and weather forecasting.
3. GEOG 110 SLO 3 - Demonstrate an understanding of how weather and climate have an impact on human behavior and how human behavior has an impact on weather and climate.

Distance Education

Delivery Methods

- DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Email Communication (group and/or individual communications) Office Hours
2. In-Person
   Office Hour availability
3. Telephone Contacts
   Office hours Discussion Board

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

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- District CMS messaging service
- Announcements in the district CMS
- Feedback of student work through use of Speed Grader or other tools
- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
- This course will be able to use interactive quizzes which allow for automated assessment performance for certain question types and the use of the mastery gradebook.
- If the assessment requires necessary student authentication, the instructor can employ machine automated proctoring services available through the current district CMS.
- Use of these features (quizzes, discussions, and assignments) provide the necessary tools to evaluate student progress toward the objectives of the course.

Strategies to Make Course Accessible to Disabled Students

All courses must meet the WCAG 2.0 level AA standards including but not limited to the items listed below:

1. Images, graphs, charts or animation. A text equivalent or alt text is provided for every non-text element, including all types of images and animated objects. This will enable a screen reader to read the text equivalent to a blind student.
2. Multimedia. Equivalent alternatives for any multimedia presentation are synchronized with the presentation. Videos and live audio must be closed captioned. For archived audio, a transcript maybe sufficient.
3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
5. Outside webpages and links
6. Ensure that all webpages meet 508 standards by testing through Cynthia Says. Follow the Accessibility Guidelines WCAG 2.0 Level AA
7. Ensure links make sense out of context. Every link should make sense if the link text is read by itself. Screen reader users may choose to read only the links on a web page. Certain phrases like "click here" and "more" must be avoided.
8. Applications, software, and outside learning systems. All required outside applications and/or learning systems (e.g MyMathLab, Aleks, etc.) are accessible OR an alternative is provided. Test with WebAIM WAVE toolbar.
9. Avoid text images. Images of text are avoided, OR an alternative is provided. (Examples of images of text are PDFs made from scanned pages, and word art.)
10. Color contrast. Text and background color have sufficient contrast on all documents, PowerPoints, and webpages both inside and outside of the LMS.
11. Text objects. If the shape, color, or styling of any text object conveys information, that information is conveyed in plain text as well.
12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students

Instructors will provide the appropriate AHC student services when they communicate special needs via email, phone or in person. Instructors will also provide the appropriate links and instructions within the course syllabus. **Additional Comments** N/A

Board Approval: 05/14/2019
PCA Established: 05/14/2019
DL Conversion: 12/15/2020
Date Reviewed: Spring 2022
Catalog Year: 2022 - 2023

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 115
Catalog Course Title: Physical Geography Laboratory
Banner Course Title: Physical Geography Lab

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	0.000	0.0 - 0.0	
Lab	3.000	48.0 - 54.0	
Outside-of-Class Hours	-	-	
Total Student Learning Hours	3.0	48.0 - 54.0	1.0
Total Contact Hours	3.0	48.0 - 54.0	

Number of Times Course may be Repeated
0

Grading Method
Letter Grade or Pass/No Pass

Requisites

Prerequisite
GEOG 101 Physical Geography or concurrent enrollment in GEOG 101.

Entrance Skills

Upon entering this course, the student should be able to:

GEOG 101 - Physical Geography

- demonstrate an understanding of the global distribution and classification of the world's major climates, ecosystems, and physiographic (landform) features. demonstrate an understanding of the relationship between
- human activity and the physical landscape.
- demonstrate an understanding of the basic tools of geographic inquiry including analysis of spatial data on maps, charts, and graphs.
- demonstrate an understanding of the basic concepts of physical geography in the analysis of real-world variations in environmental patterns.
- demonstrate an understanding of the Earth-Sun geometry including its importance to environmental patterns and processes.
- demonstrate an understanding of the processes found within Earth's subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).

Catalog Description

This course is design to provide supplemental exercises in topics covered in Physical Geography lecture. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, biogeography, and habitat analysis.

Course Content

Lecture N/A **Lab**

1. Overview of the size, shape, and movements of the Earth in space and their importance to environmental patterns and processes;
2. Overview of the atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments;
3. Overview of the global distribution of the world's major climates, ecosystems, and physiographic (landform) features;
4. Overview of the basic concepts of physical geography in the analysis of real-world variations in environmental patterns;
5. Overview of the scientific method and practical experience using the tools and concepts of physical geography (laboratory component)

Course Objectives

At the end of the course, the student will be able to:

1. relate the size, shape, and movements of the Earth in space and their importance to environmental patterns and processes.
2. identify the atmospheric, geomorphological, and biotic processes that shape the Earth's surface environments.
3. describe the global distribution of the world's major climates, ecosystems, and physiographic (landform) features.
4. apply the scientific method and practical experience using the tools and concepts of physical geography (laboratory component).
5. apply the basic concepts of physical geography in the analysis of real-world variations in environmental patterns.

Methods of Instruction

- **Demonstration**
  Earth's subsystem (atmosphere, biosphere, hydrosphere, lithosphere) models may be demonstrated in class before or during lab activities.
- **Discussion**
  Lab activities may include brief small group or overall class discussions.
- **Field Trips**
  Field trips may be incorporated into the course.
- **Lab**
  This is a lab course and will include lab activities.

Assignments

- **Other Assignments**
  Outside assignments will be rare given that this is a lab course. The possible exception will be if a field trip is taken or if a lab project is permitted to be worked on outside of class.

Methods of Evaluation

- **Projects**
- **Field Trips**
- **Lab Activities**

Texts and Other Instructional Materials

Adopted Textbook

1. Charles E. Thomsen, Robert W. Christopherson *Applied Physical Geography: Geosystems in the Laboratory* Edition: 10th 2017
2. James F. Petersen, Dorothy Sack, Robert E. Gabler *Lab Manual for Petersen/Sack/Gabler's Physical Geography* Edition: 10th 2012

Supplemental Texts None

Instructional Materials
None

Student Learning Outcomes

1. GEOG 115 SLO 1 - Demonstrate an ability to create and interpret various spatial representations (i.e., maps, aerial photography, and satellite images) related to physical geography.
2. GEOG 115 SLO 2 - Demonstrate an ability to recognize, categorize, and differentiate various aspects within all four of Earth’s subsystems (atmosphere, biosphere, hydrosphere, and lithosphere).
3. GEOG 115 SLO 3 - Identify, analyze, and propose solutions to issues related to physical geography.

Distance Education

Delivery Methods

- Internet
-

DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 3.000

Contact Types

1. Discussion Board

   Once a week.

2. Email Communication (group and/or individual communications)

   As needed.

3. Other (please specify)

   Zoom meetings as needed.

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

- Assignments will be submitted primarily through the district Course Management System(CMS).
- Students can submit multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
- Students can also submit assignments through district email or the messaging service in the district CMS. The district
- CMS contains many tools instructors can use to facilitate different assignment types. Instructors may use the
- assignments tool and / or discussion tool to facilitate student to student interaction.
  Instructors may use the feedback features of the district CMS to facilitate instructor - initiated contact. When
- appropriate, instructors may use group assignments.
-

Possible tools employed to adjust for ERT / DE course may include, but not limited to:

- District CMS assignments
- Threaded discussion forums
- District Email
- District CMS messaging service
- Announcements in the district CMS
- Feedback of student work through use of Speed Grader or other tools
- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
- This course will be able to use interactive quizzes which allow for automated assessment performance for certain question types and the use of the mastery gradebook.
- If the assessment requires necessary student authentication, the instructor can employ machine automated proctoring services available through the current district CMS.
- Use of these features (quizzes, discussions, and assignments) provide the necessary tools to evaluate student progress toward the objectives of the course.

Strategies to Make Course Accessible to Disabled Students
All courses must meet the WCAG 2.0 level AA standards including but not limited to the items listed below:

1. Images, graphs, charts or animation. A text equivalent or alt text is provided for every non-text element, including all types of images and animated objects. This will enable a screen reader to read the text equivalent to a blind student.
2. Multimedia. Equivalent alternatives for any multimedia presentation are synchronized with the presentation. Videos and live audio must be closed captioned. For archived audio, a transcript maybe sufficient.
3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
5. Outside webpages and links
6. Ensure that all webpages meet 508 standards by testing through Cynthia Says. Follow the Accessibility Guidelines WCAG 2.0 Level AA
7. Ensure links make sense out of context. Every link should make sense if the link text is read by itself. Screen reader users may choose to read only the links on a web page. Certain phrases like "click here" and "more" must be avoided.
8. Applications, software, and outside learning systems. All required outside applications and/or learning systems (e.g MyMathLab, Aleks, etc.) are accessible OR an alternative is provided. Test with WebAIM WAVE toolbar.
9. Avoid text images. Images of text are avoided, OR an alternative is provided. (Examples of images of text are PDFs made from scanned pages, and word art.)
10. Color contrast. Text and background color have sufficient contrast on all documents, PowerPoints, and webpages both inside and outside of the LMS.
11. Text objects. If the shape, color, or styling of any text object conveys information, that information is conveyed in plain text as well.
12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students

Instructors will provide the appropriate AHC student services when they communicate special needs via email, phone or in person. Instructors will also provide the appropriate links and instructions within the course syllabus **Additional Comments**
N/A

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Board Approval: 04/21/2020 **PCA**
Established:
DL Conversion: 04/21/2020
Date Reviewed: Spring 2022
Catalog Year: 2022 - 2023

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)

Department: Social & Behavioral Sciences

Prefix and Number: GEOG 155

Catalog Course Title: Introduction to GIS with Lab

Banner Course Title: Intro to GIS with Lab

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units

Lecture	1.000	16.0 - 18.0	
Lab	3.000	48.0 - 54.0	
Outside-of-Class Hours	2.000	32.0 - 36.0	
Total Student Learning Hours	6.0	96.0 - 108.0	2.0
Total Contact Hours	4.0	64.0 - 72.0	

Number of Times Course may be Repeated
0

Grading Method
Letter Grade or Pass/No Pass

Requisites

Entrance Skills

None

Catalog Description

Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Identification and acquisition of GIS data. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems, georeferencing and Global Positioning Systems (GPS). Spatial analysis and modeling with GIS.

Course Content

Lecture

1. Fundamental Concepts in Geographic Information Systems

- Definition of GIS
- Vector and raster systems
- Scale and resolution
- Map projections and coordinate systems
- Applications of GIS
- Basics of cartographic design

2. GIS Data Sources

- Identify sources of GIS data
- Metadata
- Georeferencing and Global Positioning Systems (GPS) Converting digital data
- to a uniform projection and scale.
- Vector-to-raster and raster-to-vector data conversions, error propagation

3. Designing and Implementing a GIS

- User needs assessment
- Database design and management
- Fundamentals of data storage
- Database management
- Input of data with GPS
- Digitizing, scanning, editing and output

4. Spatial Analysis

- Map algebra
- Buffering
- Interpolation and surface analysis
- Network analysis
- Applications in Decision-Making
- Modeling

Lab

1. Introduction to using GIS software.

2. Basic projects using and analyzing maps using GIS software

3. Constructing maps with GIS software.

4. A group project using GI to solve real-world issues.

Course Objectives

At the end of the course, the student will be able to:

1. define Geographic Information Systems (GIS)
2. identify and evaluate GIS data sources and the importance of metadata.
3. demonstrate the process of converting analogue data to digital data for use in a GIS.
4. identify, compare and contrast vector and raster GIS.
5. evaluate the capabilities of various GIS software programs.
6. apply cartographic principles of scale, resolution, projection and data management to a problem of a geographic nature.
7. apply spatial analysis functions on a GIS to solve a Geospatial problem.

Methods of Instruction

- **Lab**
- **Lecture**

Assignments

- **Outside Assignments**
  Most outside assignments will be related to reading the textbook as GIS software will be needed to complete the majority of assignments. Some outside data analysis assignments may be given over the course of the semester as well.
- **In-Class Assignments**
  Most of the assignments will be done in class using GIS software. Assignment examples may include the following: a lab project that helps students become familiar with GIS software and related data including raster data. a lab project

that involves creating a themed map using GIS and collected data. a group project that aims to solve real-world issues using GIS.

Methods of Evaluation

- **Exams/Tests**
- **Projects**
- **Class Participation**
- **Home Work**
- **Lab Activities**

Texts and Other Instructional Materials

Adopted Textbook

1. Paul Bolstad *GIS Fundamentals: A First Text on Geographic Information Systems* Edition: Sixth 2019

Supplemental Texts None

Instructional Materials
None

Student Learning Outcomes

1. GEOG 155 SLO1 - Use and demonstrate a basic understanding of GIS software.
2. GEOG 155 SLO2 - Identify different data types found within GIS software.
3. GEOG 155 SLO3 - Create and effectively present useful data sets and maps using GIS software.

Distance Education

Delivery Methods

- DE synchronous and asynchronous

Instructor Initiated Contact Hours Per Week: 2.000

Contact Types

1. Email Communication (group and/or individual communications) N/A
2. Discussion Board N/A
3. Labs
   Conferencing programs such as Zoom or ConexED

Adjustments to Assignments
Instructors may employ a variety of online tools to make the necessary adjustments in an ERT/ DE setting for this course.

- Assignments will be submitted primarily through the district Course Management System(CMS). Students can submit
- multiple files types, type in a textbox to submit their assignments, or submit links to their work in the cloud or other web related service such as Google Docs.
- Students can also submit assignments through district email or the messaging service in the district CMS. The district
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- assignments tool and / or discussion tool to facilitate student to student interaction.
  Instructors may use the feedback features of the district CMS to facilitate instructor - initiated contact. When appropriate,
- instructors may use group assignments.
-

Possible tools employed to adjust for ERT / DE course may include, but not limited to:

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- Threaded discussion forums
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- District CMS messaging service
- Announcements in the district CMS
- Feedback of student work through use of Speed Grader or other tools
- Synchronous audio / videoconferencing(Zoom, Cranium Café)
- Interactive mobile technologies
- Chat, text, Twitter
- Telephone
- Virtual offices hours
- Other: None

Adjustments to Evaluation Tools

- ERT/DE courses allow for multiple evaluation tools with online technology.
- This course will be able to use interactive quizzes which allow for automated assessment performance for certain question types and the use of the mastery gradebook.
- If the assessment requires necessary student authentication, the instructor can employ machine automated proctoring services available through the current district CMS.
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Strategies to Make Course Accessible to Disabled Students
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3. Documents and other learning materials. PDFs, Microsoft Word documents, PowerPoint presentations, Adobe Flash and other content must be as accessible as possible. If it cannot be made accessible, consider using HTML or, if no other option is available, provide an accessible alternative. PDF documents must be properly tagged for accessibility.
4. Timed quizzes/exams. Extended time on quizzes and exams is one of the most common accommodations. Instructions for extending time in Canvas.
5. Outside webpages and links
6. Ensure that all webpages meet 508 standards by testing through Cynthia Says. Follow the Accessibility Guidelines WCAG 2.0 Level AA
7. Ensure links make sense out of context. Every link should make sense if the link text is read by itself. Screen reader users may choose to read only the links on a web page. Certain phrases like "click here" and "more" must be avoided.
8. Applications, software, and outside learning systems. All required outside applications and/or learning systems (e.g MyMathLab, Aleks, etc.) are accessible OR an alternative is provided. Test with WebAIM WAVE toolbar.
9. Avoid text images. Images of text are avoided, OR an alternative is provided. (Examples of images of text are PDFs made from scanned pages, and word art.)
10. Color contrast. Text and background color have sufficient contrast on all documents, PowerPoints, and webpages both inside and outside of the LMS.
11. Text objects. If the shape, color, or styling of any text object conveys information, that information is conveyed in plain text as well.

12. Disability statement. The course syllabus contains the college's suggested Disability Statement as well as current information on the location and contact information for the Learning Assistance Program (LAP).

Inform Students
Instructors will provide the appropriate AHC student services when they communicate special needs via email, phone or in person. Instructors will also provide the appropriate links and instructions within the course syllabus. **Additional Comments** N/A

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Board Approval: 04/19/2022 **PCA**
Established: DL Conversion:
Date Reviewed: Spring 2022
Catalog Year: 2022 - 2023

Allan Hancock College Course Outline

Discipline Placement: Geography (Masters Required)
Department: Social & Behavioral Sciences
Prefix and Number: GEOG 189
Catalog Course Title: Independent Projects in Geography
Banner Course Title: Independent Projects

Units and Hours

	Hours per Week	Total Hours per Term (Based on 16-18 Weeks)	Total Units
Lecture	-	-	
Lab	3.000 - 9.000	48.0 - 54.0 to 144.0 - 162.0	
Outside-of-Class Hours	-	-	
Total Student Learning Hours	3.0 - 9.0	48.0 - 54.0 to 144.0 - 162.0	1.0 - 3.0
Total Contact Hours	3.0 - 9.0	48.0 - 54.0 to 144.0 - 162.0	

Number of Times Course may be Repeated None

Grading Method
Letter Grade or Pass/No Pass

Requisites

None

Entrance Skills

None

Catalog Description

Courses for students capable of independent work who demonstrate the need or desire for additional study beyond the regular curriculum. Enrollment allows students to pursue activities such as directed field experience, research, or development of skills and competencies under faculty advisement and supervision. Independent projects may be earned in most disciplines. Students wishing to enroll in Independent Projects should contact the appropriate instructor identified in the class schedule. If the project proposed is acceptable to that instructor, a contract will be developed. All contracts for these classes must be completed and submitted to the Records Office no later than the end of the second week of the semester. Students may enroll for any combination (unit value) of Independent Projects 189 and/or 389 for a total of four semesters in a specific discipline. Units are awarded depending upon satisfactory performance and the amount of time committed by the student to the course. Allowable units vary according to discipline, and are based on the following formula: 1 unit - 48 hours per semester 2 units - 96 hours per semester 3 units - 144 hours per semester

Course Content

Lecture N/A **Lab**

To be worked out between the student and the instructor.

Course Objectives

At the end of the course, the student will be able to:

1. keep an organized, legible and complete record of all procedures, data and results of the project.
2. complete a contractual assignment, mutually agreeable between student and instructor.

Methods of Instruction

- **Lab**
- **Methods of Instruction Description:**

  Independent study.

Assignments

None

Methods of Evaluation

- **Research Projects**
- **Projects**
- **Other**

The students and instructors will have met the objectives through pre-designated and periodic discussions with the student, and review of the record book throughout and at the end of the project.

Texts and Other Instructional Materials

Adopted Textbook None

Supplemental Texts None

Instructional Materials
None

Student Learning Outcomes

1. GEOG 189 SLO1 - Satisfactorily complete the project as outlined in the contract.

Distance Education

This course is not Distance Learning.

Appendix C

Allan Hancock College
Program Outline

Title: Geography
Award Type: Associate in Arts for Transfer

Overview: Geography is both a holistic and varied discipline. Physical geography and human geography help us to better understand both the physical and cultural aspects of our planet. The Geography Degree Program at Allan Hancock College is designed to prepare students for multiple employment and career opportunities (some of which are listed below). Many geography courses also satisfy General Education requirements making the discipline appealing to students within and outside of the program. Transfer: The Associate in Arts degree in Geography for Transfer will provide the foundational knowledge in Geography to students who want to earn a Baccalaureate Degree in Geography at any of the CSU campuses. This degree is in compliance with the Student Transfer Achievement Reform Act and guarantees admission to most California State University (CSU) campuses for any community college student who completes an associate degree for transfer; a variation of the associate degrees traditionally offered at a California community college. Upon completion of the transfer associate degree in geography, the student is eligible for transfer with junior standing into the California State University (CSU) system. Please check with your counselor for exact details regarding transfer. Career

Opportunities: The career opportunities available to someone earning a degree in geography are diverse. Some employment and career opportunities include: Natural Resource Management; Environmental Conservation; International Development; Urban and Regional Planning; Education; Tourism; Cartography; Climate Science; Park Management; Transportation Planning and Logistics; Real Estate; International Business; Marketing; Land Surveying; Research Science; Remote Sensing; Demography. Coursework in geography, which includes Geographic Information Systems (GIS), prepares students for a wide range of jobs that employ computers to gather, manipulate, analyze and report spatial data. There is rapid growth in the use of GIS in many applications including: natural resource management, urban planning, marketing, real estate, criminology, emergency services, public health, scientific research and many other area.

Associate Degree for Transfer Requirements
Completion of 60 semester units that are eligible for transfer to the California State University, including the following:

1. Completion of the Intersegmental General Education Transfer Curriculum (IGETC) or the California StateUniversity General Education-Breadth (CSU GE).
2. A minimum of 18 semester units in a major or area of emphasis as determined by the community collegedistrict.
3, Obtainment of an overall minimum grade point average of 2.0.
4. Minimum grade of C, or P grade, for each course in the major.

[The following Allan Hancock College graduation requirements will not be required: Health and Wellness, Multicultural Gender Studies and Allan Hancock College General Education.]

The graduate of the Associate in Arts for Transfer in Geography will:

- Understand and effectively communicate the demographic, cultural, and economic differences, similarities, and connections on our planet.
- Understand and effectively communicate the Earth-Sun relationship, the Earth's physical processes, and the human influence upon the physical environment.
- Understand and effectively communicate regional physical and cultural differences, similarities, and connections on our planet.
- Understand and effectively use the methods and technologies used in geographic analysis, such as remote sensing, GIS, GPS, and cartography.

Program Requirements

A major of 18 units is required for the associate in arts in geography for transfer degree. *Required core courses (18 units)*

Units: 18

GEOG101	Physical Geography	3
GEOG102	Human Geography	3
GEOG103	World Regional Geography	3
GEOG115	Physical Geography Laboratory	1
GEOG105	Geography of California	3
GEOG110	Introduction To Weather and Climate	3
GEOG155	Introduction to GIS with Lab	2

Total Program Units **18**

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Appendix D

COURSE REVIEW VERIFICATION

Discipline: Geography Year: 2022

As part of the program evaluation process, the self-study team has reviewed the course outlines supporting the discipline/program curriculum. The review process has resulted in the following recommendations:

1. The following course outlines are satisfactory as written and do not require modification (list all such courses):
   GEOG 101, GEOG 102, GEOG 103, GEOG 104, GEOG 105, GEOG 110, GEOG 115, GEOG 155, GEOG 189.
   Course Review approved by AP&P Spring 2022.

2. The following courses require minor modification to ensure currency. The self-study team anticipates submitting such modifications to the AP&P, FALL 20____ SPRING 20____:

   None

3. The following courses require major modification. The self-study team anticipates submitting such modifications to the AP&P committee, FALL 2022, SPRING 20____:

   GEOG 105, GEOG 155, and GEOG 110 need to be submitted for AHC GE.

GRADUATION REQUIREMENTS: General Education (GE), Multicultural/Gender Studies (MCGS) and Health & Safety (H&W) Courses.

The following courses were reviewed as meeting an **AHC GE** requirement. The AP&P GE Criteria and Category Definitions (GE Learning Outcomes) forms were submitted to the AP&P for review on: Spring 2022.

The following courses were reviewed during course review and they still meet GE learning outcomes:

GEOG 101, GEOG 102, GEOG 103, GEOG 115

The following course
ere reviewed as meeting the **MCGS** requirement. The AP&P MCGS Criteria and Category Definitions (MCGS Learning Outcomes – To Be Developed) forms were submitted to the AP&P for review on: Spring 2022.

GEOG 102, GEOG 103

The following courses were reviewed as meeting the **H&W** requirement. The AP&P H&W Studies Criteria (To Be Developed) and Category Definitions (H&W Learning Outcomes – To Be Developed) forms were submitted to the AP&P chair for review on: _____

N/A

Course Review Team Members

Chris Straub

Appendix E

Articulation Status of Courses

GEOG 101 Physical Geography (3)
04/05/22

CATALOG DESCRIPTION
An introduction to the earth's physical geography, addressing the origins, patterns and interconnections of weather/climate, water, landforms, living systems and human culture.

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona	GEO 101	Physical Geography (4)
	Cal Poly San Luis Obispo	GEOG 250 Or ERSC 250	Physical Geography (4) Or Physical Geography
	CSU Bakersfield		NEC
	CSU Channel Islands		NEC
	CSU Chico	- - - - - - - - - - - - - - - - - - -	Denied [GEOG 101, Physical Geography]
	CSU Dominguez Hills	GEO 200	Physical Geography (3)
	CSU East Bay	GEOG 210	Physical Geography (4)
	CSU Fresno	GEOG 7	Physical Geography: The Earth's Surface (3)
	CSU Fullerton	GEOG 110	Introduction to the Natural Environment (3)
	CSU Long Beach	GEOG 140	Introduction to Physical Geography (3)
	CSU Los Angeles	**NEED artic request**	GEOG 1600, Physical geography (3)
	CSU Monterey Bay		NEC
	CSU Northridge	GEOG 101	The Physical Environment (3)
	CSU Sacramento	GEOG 1	Physical Geography (3)
	CSU San Bernardino	GEOG 1030	Physical Geography (3)
	CSU San Marcos	GEOG 110	Introduction to Physical Geography (3)
	CSU Stanislaus	GEOG 2010	Introduction to Physical Environment (3)
	Humboldt State	GEOG 106	Physical Geography (3)
	San Diego State	GEOG 101	Principles of Physical Geography (3)
	San Francisco State	GEOG 101	Our Physical Environment (3)
	San Jose State	GEOG 1	Geography of Natural Environments (3)
	Sonoma State	**NEED Artic Request**	GEOG Global Environmental Systems (4)
	UC Transferable	Yes	

Or GEOG 103	UC Berkeley	GEOG 10	World Regions, Peoples, and States (4)
	UC Davis		NEC
	UC Irvine		NEC
	UC Los Angeles	GEOG 1	Earth's Physical Environment (5)
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara	GEOG 4	Land, Water, and Life (4)
	UC Santa Cruz		NEC
	C-ID	C-ID GEOG 110	Introduction to Physical Geography
	CSU GE	B1	
	IGETC	5A	

GEOG 102 Human Geography (3)
04/05/22

CATALOG DESCRIPTION

A historical perspective is used to explore our human role in shaping the earth's cultural landscapes. Globalization and cultural diversity are course themes. Topics include population and migration; the geography of language, religion, and social customs; economic forms; settlements; and resource problems.

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona	GEO 1020	Human Geography (4)
	Cal Poly San Luis Obispo	GEOG 150	Introduction to Cultural Geography (4)
	CSU Bakersfield		NEC
	CSU Channel Islands	GEOG 201	Culture & Historical Geography of the World (3)
	CSU Chico	GEOG 102	Human Geography (3)
	CSU Dominguez Hills	GEO 100	Human Geography (3)
	CSU East Bay	GEOG 2300	Cultural Geography (3)
	CSU Fresno	GEOG 2	Introduction to Cultural Geography (3)
	CSU Fullerton	GEOG 160	Human Geography (3)
Or GEOG 103	CSU Long Beach	GEOG 160	World Regional Geography (3)
	CSU Los Angeles	GEOG 150	Human Geography (3)
	CSU Monterey Bay		NEC
	CSU Northridge	GEOG 107	Introduction to Human Geography (3)
	CSU Sacramento	GEOG 2	Cultural Geography (3)

	CSU San Bernardino	GEOG 1010	Introduction to Human Geography (3)
	CSU San Marcos	**NEED artic request**	GEOG 100, Introduction to Human Geography (3)
	CSU Stanislaus	GEOG 2020	Introduction to Cultural Geography (3)
	Humboldt State	GEOG 105	Cultural Geography (3)
	San Diego State	GEOG 102	Principles of Cultural Geography (3)
	San Francisco State	GEOG 102	The Human Environment (3)
	San Jose State	GEOG 10	Cultural Geography (3)
Need C or better	Sonoma State	GEOG 203	Human Geography (3)
	UC Transferable	Yes	
	UC Berkeley		NEC
	UC Davis		NEC
	UC Irvine		NEC
Or GEOG 103	UC Los Angeles	GEOG 3 Or GEOG 4 Or GEOG 6	Cultural Geography (5) Or Globalization: Regional Development & World Economy (5) Or World Regions: Concepts and Contemporary Issues (5)
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara	GEOG 5	People, Place, and Environment (4)
	UC Santa Cruz		NEC
	C-ID GEOG 120		Introduction to Human Geography
	CSU GE	D5	
	IGETC	4E	

GEOG 103 World Regional Geography (3)
04/01/22

CATALOG DESCRIPTION
A study of the world's major geographic regions. The course focuses on the increasing globalization of the world and a movement towards greater emphasis on cultural diversity.

AHC Special Notes	Articulation Institution	Prefix	Title

	Cal Poly Pomona	GEO 1000	World Regional Geography (3)
	Cal Poly San Luis Obispo		NEC
	CSU Bakersfield		NEC
	CSU Channel Islands	GEOG 201	Cultural & Historical Geography of the World (3)
	CSU Chico		NEC
	CSU Dominguez Hills		NEC
	CSU East Bay	GEOG 125	World Regions and Development (3)
	CSU Fresno	GEOG 4	World Geography (3)
	CSU Fullerton	GEOG 100	Global Geography (3)
Or GEOG 102	CSU Long Beach	GEOG 100	World Regional Geography
	CSU Los Angeles		NEC
	CSU Monterey Bay		NEC
	CSU Northridge	GEOG 150	World Geography (3)
	CSU Sacramento		NEC
	CSU San Bernardino	GEOG 1650	World Regions and Peoples (3)
	CSU San Marcos	GEOG 201	World Regional Geography (3)
	CSU Stanislaus	**NEED artic request**	GEOG 2400, Global Culture and Environments (3)
	Humboldt State		NEC
	San Diego State	GEOG 106	World Regional Geography (3)
	San Francisco State	GEOG 107	World Regions & Interrelations (3)
	San Jose State	GEOG 12	Global Geography (3)
	Sonoma State	GEOG 205	World Regional Geography (3)
	UC Transferable	Yes	
Or GEOG 101	UC Berkeley	GEOG 10	World Regions, Peoples, and States (4)
	UC Davis		NEC
	UC Irvine		NEC
Or GEOG 102	UC Los Angeles	GEOG 3 Or GEOG 4 Or GEOG 6	Cultural Geography (5) Globalization: Regional Development & World Economy (5) Or World Regions: Concepts and Contemporary Issues (5)
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara	GEOG 2	World Regions (4)

	UC Santa Cruz		NEC
	C-ID	C-ID GEOG 125	World Regional Geography
	CSU GE	D5	
	IGETC	4E	

GEOG 105 Geography of California (3)
04/05/22

CATALOG DESCRIPTION
A survey of the geography of California, including the physical environment, weather and climate, population, industry and agriculture, and major cultural patterns..

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona		NEC
	Cal Poly San Luis Obispo		NEC
	CSU Bakersfield		NEC
	CSU Channel Islands		NEC
	CSU Chico	GEOG 125	California Cultural Landscapes (3)
	CSU Dominguez Hills		NEC
	CSU East Bay		NEC
	CSU Fresno		NEC
	CSU Fullerton		NEC
	CSU Long Beach		NEC
	CSU Los Angeles		NEC
	CSU Monterey Bay		NEC
	CSU Northridge		NEC
	CSU Sacramento		NEC
	CSU San Bernardino		NEC
	CSU San Marcos		NEC
	CSU Stanislaus		NEC
	Humboldt State		NEC
	San Diego State		NEC
	San Francisco State		NEC
	San Jose State		NEC
	Sonoma State		NEC
	UC Transferable	Yes	NEC
	UC Berkeley	**NEED Artic Request**	GEOG 50AC, California (4)

	UC Davis		NEC
	UC Irvine		NEC
	UC Los Angeles		NEC
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara		NEC
	UC Santa Cruz		NEC
	C-ID	C-ID GEOG 140	California Geography
	CSU GE	D5	
	IGETC	4E	

GEOG 110 Introduction to Weather and Climate (3)
04/01/22

CATALOG DESCRIPTION

An introduction to the physical processes underlying atmospheric and weather phenomena, including global climate change and the impacts of various weather and climate phenomena on society. Topics include atmospheric structure and composition, solar radiation and energy balances, temperature, seasonal changes, atmospheric moisture, clouds and fog, precipitation, air pressure, winds, air masses and fronts, cyclones, dynamics of the atmosphere and ocean, weather forecasting, climate and climate change.

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona		NEC
	Cal Poly San Luis Obispo		NEC
	CSU Bakersfield		NEC
	CSU Channel Islands		NEC
	CSU Chico		NEC
	CSU Dominguez Hills		NEC
	CSU East Bay		NEC
	CSU Fresno	GEOG 7	Physical Geography: Global Concepts, Weather and Climate (3)
	CSU Fullerton		NEC
	CSU Long Beach	**NEED Artic request**	GEOG 130, Geography of Weather and Climate (4)
	CSU Los Angeles	**NEED Artic request**	GEOG 1700,Meteorology (3)
	CSU Monterey Bay		NEC

	CSU Northridge	GEOG 103 & GEOG 105	Weather (3)
	CSU Sacramento		NEC
	CSU San Bernardino		NEC
	CSU San Marcos		NEC
	CSU Stanislaus		NEC
	Humboldt State		NEC
	San Diego State	**NEED Artic request**	GEOG 103, Weather and Climate (3)
	San Francisco State		NEC
	San Jose State	**NEED Artic request**	METR 1, Weather and Climate (3)
	Sonoma State		NEC
	UC Transferable	Yes	
	UC Berkeley		NEC
	UC Davis		NEC
	UC Irvine		NEC
	UC Los Angeles		NEC
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara	GEOG 3	Oceans and Atmosphere (4)
	UC Santa Cruz		NEC
	C-ID	C-ID GEOG 130	Introduction to Weather and Climate
	CSU GE	D5	
	IGETC	4E	

GEOG 115 Physical Geography Laboratory (1)
04/05/22

CATALOG DESCRIPTION

This course is design to provide supplemental exercises in topics covered in Physical Geography lecture. Lab experience will include map analysis and interpretation, weather prognostication, landform processes and evolution, tectonics, biogeography, and habitat analysis.

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona	**NEED Artic Request**	GEOG 1010L, Physical Geography Laboratory (1)
	Cal Poly San Luis Obispo		NEC
	CSU Bakersfield		NEC

	CSU Channel Islands		NEC
	CSU Chico		NEC
	CSU Dominguez Hills		NEC
	CSU East Bay		NEC
	CSU Fresno		NEC
	CSU Fullerton	**NEED Artic Request**	GEOG 110L, Introduction to the Natural Environment: Laboratory (1)
	CSU Long Beach		NEC
	CSU Los Angeles		NEC
	CSU Monterey Bay		NEC
+ GEOG 101	CSU Northridge	GEOG 102	Physical Geography Laboratory (1)
	CSU Sacramento	**NEED Artic Request**	GEOG 11, Laboratory in Physical Geography (1)
	CSU San Bernardino	GEOG 1030L	Physical Geography Laboratory (1)
	CSU San Marcos	**NEED Artic Request**	GEOG 110L, Introduction to Physical Geography Laboratory (1)
	CSU Stanislaus	**NEED Artic Request**	GEOG 2012, Introduction to Physical Geography Laboratory (1)
	Humboldt State	**NEED Artic Request**	GEOG 106L, Physical Geography Laboratory (1)
	San Diego State		NEC
	San Francisco State		NEC
	San Jose State		NEC
	Sonoma State		NEC
	UC Transferable	Yes	
	UC Berkeley		NEC
	UC Davis		NEC
	UC Irvine		NEC
	UC Los Angeles		NEC
	UC Merced		NEC
	UC Riverside		NEC
	UC San Diego		NEC
	UC Santa Barbara		NEC
	UC Santa Cruz		NEC
	C-ID	Pending	C-ID GEOG 111, Physical Geography Lab
	CSU GE	B3	
	IGETC	5C	

GEOG 155 Introduction to GIS with Lab (2)
04/05/22

CATALOG DESCRIPTION

Study of Geographic Information Systems (GIS) science and its applications to spatial data management. Identification and acquisition of GIS data. Assessment of vector and raster systems, scale, resolution, map projection, coordinate systems, georeferencing and Global Positioning Systems (GPS). Spatial analysis and modeling with GIS.

NOTE: Most CSU Courses are 3 units

AHC Special Notes	Articulation Institution	Prefix	Title
	Cal Poly Pomona		3.0/1.0
	Cal Poly San Luis Obispo		4.0
	CSU Bakersfield		NEC
	CSU Channel Islands		NEC
	CSU Chico		3.0
	CSU Dominguez Hills		NEC
	CSU East Bay		3.0
	CSU Fresno		3.0
	CSU Fullerton		3.0
	CSU Long Beach		NEC
	CSU Los Angeles		4.0
	CSU Monterey Bay		NEC
	CSU Northridge		3.0
	CSU Sacramento		3.0
	CSU San Bernardino		4.0
	CSU San Marcos		5.0
	CSU Stanislaus		3.0
	Humboldt State	**NEED artic request**	GSP 101, Geospatial Concepts (2)
	San Diego State		
	San Francisco State		NEC
	San Jose State		NEC
	Sonoma State		NEC
	UC Transferable	Yes	
	UC Berkeley		
	UC Davis		
	UC Irvine		
	UC Los Angeles		
	UC Merced		

	UC Riverside		
	UC San Diego		
	UC Santa Barbara		
	UC Santa Cruz		
	C-ID	C-ID GEOG 155	Introduction to Geographic Information Systems and Techniques with Lab.
	CSU GE		
	IGETC		