## **GEOGRAPHIC INFORMATION** SYSTEMS CERTIFICATE

## **Division: Social Sciences**

PROGRAM CODE: 1C07825N Financial Aid Eligible

Provide endorsed entry-level skills for the rapidly growing GIS field. Our certificate is the only general purpose GIS certificate approved by the California State Chancellor's office. To earn a certificate, complete the required courses as listed with a grade of C or better. At least 50% of all course work must be completed at Cypress College. Cypress College certificate is inclusive of tiers one through four in the U. S. Department of Labor's Geospatial Industry Competency Model of June 1, 2010. This certificate requires a total of 25-27 units.

Code	Title	Units
<b>Required Geographic</b>	Information System courses (12 units):	
GEOG 230 C	Introduction to GIS	3
GEOG 231 C	GIS - Spatial Analysis	3
GEOG 232 C	GIS - Analysis and Modeling	3
GEOG 233 C	GIS - Advanced Internship	3
Spatial Courses (3 ur	nits):	3
(Select ONE course from the following)		
GEOG 100 C	World Geography	3
or GEOG 100HC	Honors World Geography	
GEOG 160 C	Cultural Geography	3
Spatially Related Cou	ırses (3-5 units):	3-5
ANTH 102 C	Cultural Anthropology	3
or ANTH 102HC	CHonors Cultural Anthropology	
ANTH 103 C	Introduction to Archaeology	3
BIOL 103 C	Environmental Science	3
BIOL 122 C	Marine Biology	4
GEOG 100 C	World Geography	3
or GEOG 100HC Honors World Geography		
GEOG 102 C	Physical Geography	3
GEOG 130 C	California Geography	3
GEOG 140 C	Weather and Climate	3
GEOG 160 C	Cultural Geography	3
GEOG 202 C	Field Geography - Physical	1
GEOG 234 C	Current Topics in GIS	3
GEOG 260 C	Economic Geography	3
GEOL 100 C	Physical Geology	3
or GEOL 100HC	Honors Physical Geology	
GEOL 120 C	Geology of California	3
GEOL 130 C	Introduction to Oceanography	3
GEOL 190 C	Environmental Geology	3
HS 147 C	Survey of Disease	3
ATC 174 C	Destin Americas and Europe	3
ATC 175 C	Destinations - Africa and Pacific	3
BUS 222 C	Principles of Marketing	3
BUS 224 C	International Marketing	3
ASTR 116 C	Introduction to Astronomy	3

or ASTR 116HC Honors Intro to AstronomySpatial Courses with Lab (4 units):4(Choose ONE option from the following)OPTION 1:GEOG 102 CPhysical Geographyor GEOG 102 LCPhysical Geography - LabANDGEOG 102 LCPhysical Geography - Labor GEOG 202 CField Geography - PhysicalOPTION 2:GEOL 100 CPhysical Geologyor GEOL 100 CPhysical Geologyor GEOL 100 HCHonors Physical Geology3or GEOL 100 HCCEOL 101 CPhysical Geology Laboratory1Computer Programming Skills (3 units):3CIS 211 CCIN 2:36 CIntro to Oracle - SQL PL-SQL3CIS 247 CCIS 247 CPython Programming3Total Units25-27			
(Choose ONE option from the following)         OPTION 1:         GEOG 102 C       Physical Geography       3         or GEOG 102 LC       Physical Geography - Lab       1         AND         GEOG 102 LC       Physical Geography - Lab       1         or GEOG 202 C       Field Geography - Physical       1         OPTION 2:       GEOL 100 C       Physical Geology       3         or GEOL 100 C       Physical Geology       3         or GEOL 100 HC       Honors Physical Geology       3         or GEOL 100 C       Physical Geology       3         OPTION 2:       GEOL 100 C       Physical Geology       3         OCEOL 100 C       Physical Geology       3       3         OFICON 2:       GEOL 100 C       Physical Geology       3         OPTION 2:       GEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3       3       3         CIS 211 C       Introduction to Programming       3       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3       3         CIS 247 C       Python Programming       3       3			
OPTION 1:         GEOG 102 C       Physical Geography       3         or GEOG 102LC       Physical Geography - Lab       4         AND       GEOG 102LC       Physical Geography - Lab       1         or GEOG 202 C       Field Geography - Physical       1         OPTION 2:       GEOL 100 C       Physical Geology       3         or GEOL 100 C       Physical Geology       3         or GEOL 100 HC       Honors Physical Geology       3         OPTION 2:       GEOL 100 C       Physical Geology       3         OCEOL 100 C       Physical Geology       3       3         OEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3       3         CIS 211 C       Introduction to Programming       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3         CIS 247 C       Python Programming       3	Spatial Courses with	Lab (4 units):	4
GEOG 102 C       Physical Geography       3         or GEOG 102LC       Physical Geography - Lab       1         AND       GEOG 102LC       Physical Geography - Lab       1         or GEOG 202 C       Field Geography - Physical       1         OPTION 2:       GEOL 100 C       Physical Geology       3         or GEOL 100 C       Physical Geology       3         or GEOL 100 HC       Honors Physical Geology       3         GEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3       3         CIS 211 C       Introduction to Programming       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3         CIS 247 C       Python Programming       3	(Choose ONE option fi	rom the following)	
or GEOG 102LC Physical Geography - Lab AND GEOG 102LC Physical Geography - Lab or GEOG 202 C Field Geography - Physical OPTION 2: GEOL 100 C Physical Geology 3 or GEOL 100HC Honors Physical Geology AND GEOL 101 C Physical Geology Laboratory 1 Computer Programming Skills (3 units): 3 CIS 211 C Introduction to Programming 3 CIS 236 C Intro to Oracle - SQL PL-SQL 3 CIS 247 C Python Programming 3	OPTION 1:		
AND GEOG 102LC Physical Geography - Lab or GEOG 202 C Field Geography - Physical OPTION 2: GEOL 100 C Physical Geology 3 or GEOL 100HC Honors Physical Geology AND GEOL 101 C Physical Geology Laboratory 1 Computer Programming Skills (3 units): 3 CIS 211 C Introduction to Programming 3 CIS 236 C Intro to Oracle - SQL PL-SQL 3 CIS 247 C Python Programming 3	GEOG 102 C	Physical Geography	3
GEOG 102LC       Physical Geography - Lab       1         or GEOG 202 C       Field Geography - Physical       1         OPTION 2:       GEOL 100 C       Physical Geology       3         or GEOL 100 HC       Honors Physical Geology       3         or GEOL 100 HC       Honors Physical Geology       3         GEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3       3         CIS 211 C       Introduction to Programming       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3         CIS 247 C       Python Programming       3	or GEOG 102LC	Physical Geography - Lab	
or GEOG 202 C Field Geography - Physical OPTION 2: GEOL 100 C Physical Geology 3 or GEOL 100HC Honors Physical Geology AND GEOL 101 C Physical Geology Laboratory 1 Computer Programming Skills (3 units): 3 CIS 211 C Introduction to Programming 3 CIS 236 C Intro to Oracle - SQL PL-SQL 3 CIS 247 C Python Programming 3	AND		
OPTION 2:         GEOL 100 C       Physical Geology       3         or GEOL 100HC       Honors Physical Geology       3         AND         GEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3         CIS 211 C       Introduction to Programming       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3         CIS 247 C       Python Programming       3	GEOG 102LC	Physical Geography - Lab	1
GEOL 100 C       Physical Geology       3         or GEOL 100HC       Honors Physical Geology       3         AND       GEOL 101 C       Physical Geology Laboratory       1         Computer Programming Skills (3 units):       3       3         CIS 211 C       Introduction to Programming       3         CIS 236 C       Intro to Oracle - SQL PL-SQL       3         CIS 247 C       Python Programming       3	or GEOG 202 C	Field Geography - Physical	
or GEOL 100HC Honors Physical Geology AND GEOL 101 C Physical Geology Laboratory 1 Computer Programming Skills (3 units): 3 CIS 211 C Introduction to Programming 3 CIS 236 C Intro to Oracle - SQL PL-SQL 3 CIS 247 C Python Programming 3	OPTION 2:		
ANDGEOL 101 CPhysical Geology Laboratory1Computer Programming Skills (3 units):3CIS 211 CIntroduction to Programming3CIS 236 CIntro to Oracle - SQL PL-SQL3CIS 247 CPython Programming3	GEOL 100 C	Physical Geology	3
GEOL 101 CPhysical Geology Laboratory1Computer Programming Skills (3 units):3CIS 211 CIntroduction to Programming3CIS 236 CIntro to Oracle - SQL PL-SQL3CIS 247 CPython Programming3	or GEOL 100HC	Honors Physical Geology	
Computer Programming Skills (3 units):3CIS 211 CIntroduction to Programming3CIS 236 CIntro to Oracle - SQL PL-SQL3CIS 247 CPython Programming3	AND		
CIS 211 CIntroduction to Programming3CIS 236 CIntro to Oracle - SQL PL-SQL3CIS 247 CPython Programming3	GEOL 101 C	Physical Geology Laboratory	1
CIS 236 CIntro to Oracle - SQL PL-SQL3CIS 247 CPython Programming3	Computer Programming Skills (3 units):		3
CIS 247 C Python Programming 3	CIS 211 C	Introduction to Programming	3
	CIS 236 C	Intro to Oracle - SQL PL-SQL	3
Total Units 25-27	CIS 247 C	Python Programming	3
	Total Units		25-27

http://www.curricunet.com/Cypress/reports/program\_report.cfm? programs\_id=1427