



Zero Textbook Cost (ZTC) Acceleration Grant Collaboration Cohort Geography Final Report

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INTRODUCTION

The Geography Collaboration Cohort consisted of six colleges. All are working on the same pathway, the Geography Associate of Arts for Transfer (AA-T) degree. In addition, one may also complete a related Certificate of Achievement.

The ASCCC OERI collected course-level data from the colleges for each of the courses in the targeted pathway including current Zero Textbook Cost (ZTC) status, adopted resources, and plans to convert a course to ZTC to identify overlap and areas of potential collaboration. As all colleges are working on establishing a Geography AA-T pathway, the courses were grouped using the Geography Transfer Model Curriculum (TMC) to identify commonalities.

COLLABORATION COHORT PURPOSE

The Academic Senate for California Community Colleges (ASCCC) Open Educational Resources Initiative (OERI) facilitated the work of the ZTC Acceleration Grant Geography Collaboration Cohort. Although this process was introduced to prevent the duplication of effort, it also provides a means to ensure the awareness of available OER and other sustainable means of achieving ZTC status, share OER development plans, and identify opportunities for collaboration across colleges. At the conclusion of the cohort process, the OERI will provide a report to the California Community Colleges Chancellor's Office (CCCCO) that will document the work of the cohort, verify the absence of duplicative plans, and/or delineate how duplication will be prevented or minimized.

GEOGRAPHY COLLABORATION COHORT – MEMBER COLLEGES AND ZTC PATHWAYS

The following colleges participated in the Geography Collaboration Cohort and all are working on establishing a Geography Associate of Arts for Transfer (AA-T) Zero Textbook Cost (ZTC) pathway. In addition, Cosumnes is working on a Sustainability Certificate of Achievement.

- Cerritos College
- Cosumnes River College (CRC)
- East Los Angeles College (ELAC)
- MiraCosta College
- Pasadena City College (PCC)
- Victor Valley College (VVC)

The ASCCC OERI collected course-level data for each of the courses in the pathway including current ZTC status, adopted resources, and plans to convert a course to ZTC to identify overlap and areas of potential collaboration. Since all colleges are converting the Geography Associate of Arts for Transfer (AA-T), the courses were grouped using the Geography Transfer Model Curriculum (TMC) to identify commonalities.

STATUS OF COURSES SPECIFIED IN THE GEOGRAPHY TRANSFER MODEL CURRICULUM AT COHORT COLLEGES

The status and plans for the required Geography AA-T courses are provided below. For course that are options within the TMC, only colleges that identified a specific course as part of their ZTC pathway have been included.

Required Core Courses

Introduction to Physical Geography (C-ID GEOG 110) or Introduction to Physical Geography, with Lab (C-ID GEOG 115) or Introduction to Physical Geography (C-ID GEOG 110 and Physical Geography, Laboratory (C-ID GEOG 111)

- ZTC – ELAC, PCC
- Collaborating on *Essentials in Geography* to address course needs – Cerritos, CRC, MiraCosta
- Plan pending - VVC

Introduction to Human Geography (C-ID GEOG 120)

- ZTC – PCC, VVC
- Collaborating on *Essentials in Geography* to address course needs – Cerritos, CRC, MiraCosta
- Adapting/remixing [Introduction to Human Geography: A Disciplinary Approach](#) (CC BY-NC) to fill in missing chapters on population and migration. Creating a full Canvas shell to be shared in Canvas Commons. – ELAC

World Regional Geography (C-ID GEOG 125)

- ZTC – CRC (Collaborating on *Essentials in Geography* to address course needs), PCC
- Collaborating on *Essentials in Geography* to address course needs – Cerritos, MiraCosta
- Adopting [World Regional Geography](#) (CC BY-NC-SA) - VVC
- Creating a Canvas shell by remixing existing OER - ELAC

List A

Only colleges that indicated a specific course is part of their ZTC pathway are included below.

California Geography (C-ID GEOG 140)

- ZTC – ELAC, PCC
- Collaborating on *Essentials in Geography* to address course needs – Cerritos, CRC, MiraCosta
- Creating new OER – VVC

Introduction to Geographic Information Systems and Techniques, with Lab (C-ID GEOG 155)

- ZTC - CRC [Possibly adopting [Essentials of Geographic Information Systems](#) (CC BY-NC-SA) and creating homework/activities], PCC
- Plan pending - MiraCosta

Map Interpretation and Analysis (C-ID GEOG 150)

- ZTC - CRC (Existing materials are provided through Canvas. May publish existing materials under an open license), PCC

Introduction to Weather and Climate (C-ID GEOG 130)

- ZTC - CRC (Existing materials are provided through Canvas. May publish existing materials through LibreTexts or Canvas Commons), ELAC, PCC (library resources)
- Plan pending - VVC

Regional Field Studies (C-ID GEOG 160)

- ZTC – PCC
- Collaborating on *Essentials in Geography* to address course needs – Cerritos, CRC, MiraCosta

List B

Introduction to Cultural Anthropology (C-ID ANTH 120)

- ZTC – CRC, ELAC, PCC
- Plan pending - VVC

Physical Geology (C-ID GEOL 100)

- ZTC – PCC
- Adopting [Physical Geology](#) and *The Environment of Earth's Surface* – CRC
- Plan pending – Cerritos, ELAC

Additional Geography Courses

Additional courses that are currently ZTC were excluded from the following list.

- CRC: Environmental Studies and Sustainability – Plan pending. Not required to convert pathway so work may not be done. Work on *Essentials in Geography* may address course needs
- Cerritos: Environmental Geography – Plan pending. Work on *Essentials in Geography* may address course needs
- MiraCosta: Environmental Sustainability and Society – Plan pending. Work on *Essentials in Geography* may address course needs

CONCLUSIONS

The Geography Collaboration Cohort convened synchronously via Zoom on April 22, 2024. The ASCCC OERI presented the group with the results of the data collection process and asked for clarity where data were missing. In addition, the ASCCC OERI presented available OER for the cohort's consideration. Two follow-up meetings were held to discuss collaborative opportunities on September 16, 2024 and September 30, 2024.

Five out of the six participating colleges have decided to collaborate on a modular textbook that could support the majority of geography courses taught in the California Community College system. Additionally, there is a collaborative project to create OER to support Introduction to Geographic Information Systems and Techniques, with Lab (C-ID GEOG 155) courses. All cohort participants have access to the collaborative plans to ensure they can consider adopting the products upon completion. A description of each project will be provided in the final report for the field's consideration. The ASCCC OERI recommends that colleges continue to share project progress for consideration as they complete their ZTC work. In addition, the ASCCC OERI recommends that any college with "plan pending" listed as a course's status review the cohort plans and consider adoption before OER creation.

APPENDIX 1 – THE GEOGRAPHY TRANSFER MODEL CURRICULUM

Title	C-ID Designation (if applicable)
Required Core	
Introduction to Physical Geography or Introduction to Physical Geography, with Lab or Introduction to Physical Geography and Physical Geography, Laboratory	GEOG 110 or GEOG 115 or GEOG 110 and GEOG 111
Introduction to Human Geography or World Regional Geography	GEOG 120 GEOG 125
List A – Two courses	
Any courses not selected from the Required Core	
Physical Geography, Lab (if GEOG 115 or GEOG 111 not taken from the Core)	GEOG 111
California Geography	GEOG 140
Introduction to Geographic Information Systems and Techniques, with Lab	GEOG 155
Map Interpretation and Analysis	GEOG 150
Introduction to Weather and Climate	GEOG 130
Regional Field Studies	GEOG 160
List B – Two courses	
Any courses not selected from List A	
Introduction to Cultural Anthropology	ANTH 120
Physical Geology	GEOL 100
Any CSU transferable geography courses or other courses, in or outside the discipline, that are articulated as lower division major preparation for the geography major at a CSU.	

APPENDIX 2 – RESOURCES IN USE OR IDENTIFIED BY GEOGRAPHY COLLABORATION COHORT COLLEGES

Resource	Course(s)	College(s)
Physical Geography – Version 1 (CC BY)	Intro to Physical Geography (GEOG 110)	Cosumnes River
Physical Geography Lab Manual, Version 2	Intro to Physical Geography Lab (GEOG 111)	East LA, Pasadena
Introduction to Human Geography: A Disciplinary Approach (CC BY-NC)	Human Geography (GEOG 120)	Pasadena, Cosumnes River, Victor Valley
World Regional Geography (CC BY-NC-SA)	World Regional Geography (GEOG 125)	Victor Valley
CA Geography Textbook by Jeremy Patrich	California Geography (GEOG 140)	Pasadena
GST102 (Spatial Analysis)	Map Interpretation and Analysis (GEOG 150)	Pasadena
Essentials of Geographic Information Systems (CC BY-NC-SA)	Intro to GIS (GEOG 155)	Pasadena

APPENDIX 3 – AVAILABLE OER FOR COURSES SPECIFIED IN THE GEOGRAPHY TRANSFER MODEL CURRICULUM (TMC)

The following list provides examples of existing Open Educational Resources (OER) that can be used for the indicated courses. The structure presented here aligns with the [Geography TMC](#). Access the complete curated collections of resources for Geography at [Open Educational Resources and Geography](#) and [OER and the Geography TMC](#).

Required Core Courses (6-7 units)

Physical Geography

Introduction to Physical Geography ([C-ID GEOG 110](#))

- [Physical Geography \(Patrich, 2024\) – College of the Canyons \(CC BY\)](#)
- [The Physical Environment: an Introduction to Physical Geography \(Ritter, 2021\) \(CC BY-SA 4.0\)](#)
- [Supplemental Materials: Physical Geography \(Lenkeit-Meezan\) – LibreTexts \(CC BY-NC\)](#)
- [Physical Geography and Natural Disasters \(Dastrup, 2021\) – Open Geography Education \(CC BY-NC-SA\)](#)
- [Fundamentals of Physical Geography, 2nd edition \(2018\)](#)
- [Physical Geography – Version 1 \(Patrich and Radtke, 2020\)](#)

or Introduction to Physical Geography, with Lab ([C-ID GEOG 115](#))

- [Physical Geography Lab Manual \(Ray et al., 2020\) \(CC BY-NC 4.0\) – LibreTexts](#)

or Introduction to Physical Geography ([C-ID GEOG 110](#)) and Physical Geography, Laboratory ([C-ID GEOG 111](#))

- See above.

Introduction to Human Geography ([C-ID GEOG 120](#)) or World Regional Geography ([C-ID GEOG 125](#))

Introduction to Human Geography ([C-ID GEOG 120](#))

- [Introduction to Human Geography \(Dastrup\) \(CC BY-SA 4.0\)](#)
- [Introduction to Human Geography: A Disciplinary Approach \(Graves, 2020\) \(Free but not open\)](#)

or World Regional Geography ([C-ID GEOG 125](#))

- [OERI Contemporary World Geographies \(Gregorio, Naraghi, Ray, Scott, Sellers, and Wallace\) \(CC BY-NC-SA\)](#)
- [Introduction to World Regional Geography \(Dastrup, 2019\) \(CC BY-NC-SA 4.0\)](#)
- [World Regional Geography: People, Places and Globalization \(Berglee, 2012\) – Saylor Academy \(CC BY-NC-SA\)](#)

List A – Select 6-7 units

Physical Geography, Laboratory (if GEOG 115 or 111 not taken above) (C-ID GEOG 111)

- [Physical Geography Lab Manual \(Ray et al., 2020\) \(CC BY-NC 4.0\) – LibreTexts](#)
- [Physical Geography Lab Manual \(Pesses, Welsh, and Adams, 2017\) \(CC BY 4.0\)](#)

California Geography (C-ID GEOG 140)

- [California Geography \(Patrich, 2024\) – College of the Canyons \(CC BY\)](#)

Introduction to Geographic Information Systems and Techniques, with Lab (C-ID GEOG 155)

- [Introduction to Geographic Information Systems \(Dastrup\) \(CC BY\)](#)
- [Essentials of Geographic Information Systems \(Campbell and Shin, 2011\) \(CC BY-NC-SA\)](#)

Map Interpretation and Analysis (C-ID GEOG 150)

- [Mapping, Society, and Technology \(Manson, 2017\) \(CC BY-NC\)](#)
- [Spatial Analysis \(Smith\) \(CC BY\)](#)

Introduction to Weather and Climate (C-ID GEOG 130)

- [Bending the Curve: Climate Change Solutions \(Veerabhadran, Aines and Auffhammer, 2019\) \(CC BY-NC-SA\)](#)
- [Introduction to Climate Science. 1st Edition \(Schmittner, 2018\) \(CC BY-NC-SA\)](#)
- [Climate Toolkit: A Resource Manual for Science and Action \(Granshaw, 2020\) \(CC BY-NC\)](#)

Regional Field Studies (C-ID GEOG 160)

- [World Regional Geography: People, Places and Globalization \(Berglee, 2012\) – Saylor Academy \(CC BY-NC-SA\)](#)

List B – Select 6 units

Introduction to Cultural Anthropology ([C-ID ANTH 120](#))

- [Perspectives: An Open Invitation to Cultural Anthropology, 2nd Edition \(American Anthropological Association, 2020\) \(CC-BY-NC 4.0\)](#)
- [Cultural Anthropology – LibreTexts \(CC-BY-NC-SA 3.0\)](#)
- [The Art of Being Human: A Textbook for Cultural Anthropology \(New Prairie Press, 2018\) \(CC-BY-NC-SA 4.0\)](#)
- [Introduction to Anthropology \(Jennifer Hasty, David G. Lewis, & Marjorie M. Snipes, 2022, OpenStax\) \(CC BY\)](#)
- [Introduction to Anthropology: Holistic and Applied Research on Being Human \(Palmiotto A, Homsey-Messer L, Ford B, Poole A, Adams A, Allard F, Chadwick W, 2022\) \(CC BY-SA\)](#)

Physical Geology ([C-ID GEOL 100](#))

- [An Introduction to Geology \(Johnson, Affolter, Inkenbrandt, and Mosher, 2019\)](#)
- [Physical Geology – 2e \(Earle, 2019\) \(CC BY\)](#)
- [The Dynamic Earth \(Kious and Tilling, 2022\) – LibreTexts \(CC BY-SA\)](#)
- [Introduction to Physical Geology \(Staff, Miracosta College\)](#)
- [Fundamentals of Geology \(Schulte\) \(CC BY 4.0\)](#)
- [Physical Geology \(Panchuk, 2021\) – First University of Saskatchewan Edition \(CC BY\)](#)

Or any courses not selected above (from List A), any CSU transferable geography courses and/or other courses (in or outside the discipline) that are articulated as lower division major preparation for the geography major at a CSU.

APPENDIX 4 – ANTICIPATED NEW OPEN EDUCATIONAL RESOURCES AND COLLABORATIONS

Course(s) (C-ID is listed if applicable)	Project	College(s)
GEOG 120 Introduction to Human Geography	Creating a full Canvas shell to be shared in Canvas Commons. Adapting/remixing Introduction to Human Geography: A Disciplinary Approach (CC BY-NC) to fill in missing chapters on Population and Migration.	East LA
GEOG 140 California Geography	Creating new OER	Victor Valley
All Geography courses	Resource curation and gap identification for the discipline. The group will create a master spreadsheet to curate existing resources, identify gaps, and indicate work being done to prevent duplication. Many geography resources can be used across a variety of courses.	Cerritos, Cosumnes River, East LA, and MiraCosta
All Geography courses	The cohort is creating a modular text titled “Essentials in Geography.” This text will contain resources that can be used when teaching a variety of geography courses. This resource might include, assignments, activities or basic foundational knowledge many instructors can use in a variety of geography courses. This project will be built upon the resource curation and gaps identification efforts.	Cerritos, Cosumnes River, and MiraCosta

APPENDIX 5 – ZTC ACCELERATION GRANT GEOGRAPHY COLLABORATION COHORT MEMO



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DATE: November 25, 2024
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SUBJECT: Geography ZTC Acceleration Grant Collaboration Cohort
ASCCC OERI FACILITATOR: Amanda Taintor, ASCCC OERI Regional Lead

Cohort Participants and Data Collection

The following colleges participated in the Geography Collaboration Cohort and all are working on establishing a Geography Associate of Arts for Transfer (AA-T) Zero Textbook Cost (ZTC) pathway:

- Cerritos College
- Cosumnes River College (CRC)
- East Los Angeles College (ELAC) – previously awarded
- MiraCosta College – previously awarded
- Pasadena City College (PCC)
- Victor Valley College (VVC)

The ASCCC OERI collected course level data for each of the courses in the pathway including current ZTC status, adopted resources, and plans to convert a course to ZTC to identify overlap and areas of potential collaboration. Since all colleges are converting the Geography Associate of Arts for Transfer (AA-T), the courses were grouped using the Geography Transfer Model Curriculum (TMC) to identify commonalities.

Cohort Convening

The Geography Collaboration Cohort convened synchronously via Zoom on April 22, 2024. The ASCCC OERI presented the group with the results of the data collection process and asked for clarity where data were missing. In addition, the ASCCC OERI presented available OER for the cohort's consideration. Two follow-up meetings were held to discuss collaborative opportunities on September 16, 2024 and September 30, 2024.

Findings

Resource Curation and Gaps Identification

Participants: Cerritos, CRC, ELAC, and MiraCosta

Description: The cohort will create a master spreadsheet to curate existing resources, identify gaps, and indicate work being done to prevent duplication. Many geography resources can be used across a variety of courses.

Essentials in Geography Collaborative Project

The Geography Collaboration Cohort has decided to collaborate on a resource that could support a variety of courses within the discipline.

Participants: Cerritos, CRC, and MiraCosta

Description: The cohort is creating a modular text titled “Essentials in Geography.” This text will contain resources that can be used when teaching a variety of geography courses. This resource might include, assignments, activities or basic foundational knowledge many instructors can use in a variety of geography courses. This project will be built upon the resource curation and gaps identification efforts.

Required Core Courses

Introduction to Physical Geography (C-ID GEOG 110) or Introduction to Physical Geography, with Lab (C-ID GEOG 115) or Introduction to Physical Geography (C-ID GEOG 110) and Physical Geography, Laboratory (C-ID GEOG 111)

- Cerritos – Collaborating on *Essentials in Geography* to address course needs
- CRC – Collaborating on *Essentials in Geography* to address course needs
- ELAC – ZTC
- MiraCosta – Collaborating on Collaborating on *Essentials in Geography* to address course needs
- PCC – ZTC
- VVC – Adapting unspecified OER

Introduction to Human Geography (C-ID GEOG 120)

- Cerritos – Collaborating on *Essentials in Geography* to address course needs
- CRC – Collaborating on *Essentials in Geography* to address course needs
- ELAC – Creating a full Canvas shell to be shared in Canvas Commons. Adapting/remixing [Introduction to Human Geography: A Disciplinary Approach](#) (CC BY-NC) to fill in missing chapters on Population and Migration.
- MiraCosta – Collaborating on *Essentials in Geography* to address course needs
- PCC – ZTC
- VVC – ZTC

World Regional Geography (C-ID GEOG 125)

- Cerritos – Collaborating on *Essentials in Geography* to address course needs
- CRC – ZTC. Collaborating on *Essentials in Geography* to address course needs
- ELAC – Creating a Canvas shell by remixing existing OER
- MiraCosta – Collaborating on *Essentials in Geography* to address course needs
- PCC – ZTC
- VVC – Adopting [World Regional Geography](#) (CC BY-NC-SA)

List A

Only colleges that indicated a specific course is part of their ZTC pathway are included below.

California Geography (C-ID GEOG 140)

- Cerritos – Collaborating on *Essentials in Geography* to address course needs
- CRC – Collaborating on *Essentials in Geography* to address course needs
- ELAC – ZTC
- MiraCosta – Collaborating on *Essentials in Geography* to address course needs
- PCC – ZTC
- VVC – Creating new OER

Introduction to Geographic Information Systems and Techniques, with Lab (C-ID GEOG 155)

- CRC – ZTC. Possibly adopting [Essentials of Geographic Information Systems](#) (CC BY-NC-SA) and creating homework/activities.
- MiraCosta – Plan pending
- PCC - ZTC

Map Interpretation and Analysis (C-ID GEOG 150)

- CRC – ZTC. Existing materials are provided through Canvas. May publish existing materials under an open-license.
- PCC - ZTC

Introduction to Weather and Climate (C-ID GEOG 130)

- CRC – ZTC. Existing materials are provided through Canvas. May publish existing materials through LibreTexts or Canvas Commons.
- ELAC – ZTC
- PCC – ZTC using library resources
- VVC – Adopting unspecified OER

Regional Field Studies (C-ID GEOG 160)

- Cerritos – Collaborating on *Essentials in Geography* to address course needs
- CRC – Collaborating on *Essentials in Geography* to address course needs
- MiraCosta – Collaborating on *Essentials in Geography* to address course needs
- PCC – ZTC

Additional Geography Courses

Additional courses that are currently ZTC were excluded from the following list.

- CRC: Environmental Studies and Sustainability – Plan pending. Not required to convert pathway so work may not be done. Work on *Essentials in Geography* may address course needs

- Cerritos: Environmental Geography – Plan pending. Work on *Essentials in Geography* may address course needs
- MiraCosta: Environmental Sustainability and Society – Plan pending. Work on *Essentials in Geography* may address course needs

Conclusions

Five out of the six participating colleges have decided to collaborate on a modular textbook that could support the majority of geography courses taught in the California Community College system. Additionally, there is a collaborative project to create OER to support Introduction to Geographic Information Systems and Techniques, with Lab (C-ID GEOG 155) courses. All cohort participants have access to the collaborative plans to ensure they can consider adopting the products upon completion. A description of each project will be provided in the final report for the field's consideration.

The ASCCC OERI recommends that colleges continue to share project progress for consideration as they complete their ZTC work. In addition, the ASCCC OERI recommends that any college with “plan pending” listed in the section above review the cohort plans and consider adoption before OER creation.