Curriculum Vita

Dr. Timothy J. Niblett

CONTACT DETAILS

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(805) 769-8466

EDUCATION

Ph.D	2016, University of California at Santa Barbara (Geography)
M.A.	2013, University of California at Santa Barbara (Geography)
M.A.	2008, California Polytechnic State University, San Luis Obispo (History)
B.A.	2006, California Polytechnic State University, San Luis Obispo (History)

POSITIONS

6/2012 – 6/2016	**Instructor UCSB Department of Geography** (*Geography 3B*: Land, Water, and Life – Summer 2012; Summer 2013; Fall 2013; Spring 2014; Summer 2014; Fall 2014; Summer 2014); (*Geography 101*: Transportation Futures – Fall 2014); (*Geography 150*: Geography of the United States – Summer 2014); (*Geography 185B*: Environmental Decision Making – Spring 2015; Spring 2016)
9/2011 – 6/2013	**Graduate Student Researcher, UCSB Department of Geography**
9/2008 – 2015	**Teaching Assistant, UCSB Department of Geography** (*Geography 3A*: Oceans and the Atmosphere – Winter 2009); (*Geography 3B*: Land, Water, and Life – Summer 2010; Summer 2011, Fall 2015); (*Geography 8*: Living with Global Warming – Winter 2010); (*Geography 12*: Maps and Spatial Reasoning – Spring 2011; Summer 2011); (*Geography 20*: The Geography of Surfing – Spring 2009; Spring 2010; Winter 2014); (*Geography 101*: Transportation Futures – Fall 2008; Fall 2009; Fall 2010); (*Geography 191*: Introduction to Optimization Methods for Geographic Problems – Winter 2011).

TEACHING AND RESEARCH INTERESTS

Geographic Information Science, transportation and infrastructure, elections, spatial location and decision making, spatial optimization, spatial analysis, environmental policy, urbanization and urban networks, historical networks, site suitability, decision support systems

HONORS AND AWARDS

2014 – 2016 **Jack and Laura Dangermond Travel Grant**, University of California at Santa Barbara

2013 – 2015 **Dissertation Fellowship**, University of California at Santa Barbara

PUBLICATIONS

1. Niblett, T. J. (2016) "On the Development of a New Class of Covering Path Models" *Dissertation: University of California, Santa Barbara*.

2. Niblett, T. J. and Church, R. L. (2016) "The Shortest Covering Path Problem: A New Perspective and Model." *International Regional Science Review* Vol. 39, No. 1: 131 – 151.

3. Niblett, T. J. (2013) "The Maximal Covering/Shortest Path Problem Revisited: An Examination and Reformulation of the Problem to Allow the Elimination or Attachment of Sub-Tours." *Thesis: University of California, Santa Barbara*.

4. Church, R. L. and T. J. Niblett (2012) "Transit Route Design for Smaller Cities: Working Towards Sustainability." Final Report for University of California Transportation Center Grant awarded 2011-2012.

5. Niblett, T. J. (2008) "Chaos Among Order: the Impact of Internet Communities on Modern Society." *Thesis: California Polytechnic State University*.

6. Niblett, T. J. (2006) "The Stranglehold of Sprawl: A Case Study of Modesto and Its Environs." *Senior Thesis: California Polytechnic State University*.

In progress

1. Church, R. L. and T. J. Niblett. (2019) "TRANSMax II: Designing a Flexible Model for Transit Route Optimization" Submitted to *Computers, Environment and Urban Systems*.

2. Niblett, T. J. and R. L. Church. (2019) "The Maximal Covering Shortest Path Problem: the problem of finding optimality." Submitted to *The European Journal of Operational Research*

PRESENTATIONS

1. "TRANSMax II: An Extended Model for Transit Route Optimization." (Feb. 2016) 55th Annual Meetings of the Western Regional Science Association, Waikoloa, HI.

2. "TRANSMax II: An Alternative Formulation for Solving Maximal Covering Shortest Path Problems." (Nov. 2015) North American Meetings of the Regional Science Association International, Portland, OR.

3. "Will the Real Optimal Solution Stand Up: Solving the Maximal Covering Shortest Path Problem." (Nov. 2014) North American Meetings of the Regional Science Association International, Bethesda, MD.

4. "Special Considerations in Transit Route Optimization." (Nov. 2014) The Institute For Operations Research and the Management Sciences (INFORMS) Annual Meeting, San Francisco, CA.

5. "The Shortest Covering Path Problem Revisited." (Nov. 2013) North American Meetings of the Regional Science Association International, Atlanta, GA.

COURSES

1. **Instructor:** Geography 3B: Land, Water, and Life, Summer 2012; Summer 2013, Fall 2013, Spring 2014, Summer 2014. This course is meant to complement geography 3A and presents materials dealing primarily with processes and systems that exist on the Earth's landmasses. Major topics include tectonic theory and earth processes, weathering and landmass denudation, and climates and biomes.

2. **Instructor:** Geography 101: Transportation Futures, Fall 2014. This course gives an overview of transportation, particularly how infrastructure design and implementation have occurred in the United States. Current goals as well as sustainable strategies and emerging technologies are also discussed with respect to emissions, air pollution, environmental quality, and automotive and community design.

3. **Instructor:** Geography 150: Geography of the United States, Summer 2014. Intensive study of the physical and cultural processes that have shaped and are shaping the landscapes of the United States. This course is a mix of regional geography, human geography, and physical geography within the United States. Course concepts include such things as what is a region, what is place, what makes regions distinct, how regions form, and how this has affected their character.

4. **Instructor:** Geography 185B: Environmental Decision Making, Spring 2015; Spring 2016. This course examines the environmental challenges that are faced in the context of land use and infrastructure. Emphasis is put on how one can measure the "value" of the environment and subsequently how one can perform analysis and techniques to aid in the environmental decision making process. Topics include: Present and Future Value, Benefit Cost and Risk Analysis, Decision Analysis, Introduction to Optimization, the Land Use Screening Process, Suitability Analysis, and several case studies including the Tellico Dam project.

5. **Teaching Assistant:** Geography 3A: Oceans and the Atmosphere, Winter 2009. This course is an introduction to the various systems and interactions that exist between the Earth's oceans and its atmosphere. Major topics of study include circulation patterns, currents, and climate variability.

6. **Teaching Assistant:** Geography 3B: Land, Water, and Life, Summer 2010; Summer 2011, Fall 2015. This course is meant to complement geography 3A and presents materials dealing primarily with processes and systems that exist on the Earth's landmasses. Major topics include tectonic theory and earth processes, weathering and landmass denudation, and climates and biomes.

7. **Teaching Assistant:** Geography 8: Living with Global Warming, Winter 2010. This course examines the challenges posed by global warming as well as the science behind the processes that drive climatic changes. Major focus is on systems and functions. Topics include greenhouse gas types and emissions sources, the role of albedo and aerosols, and basic climatic modeling.

8. **Teaching Assistant:** Geography 12: Maps and Spatial Reasoning, Spring 2011; Summer 2011. This course is an introduction to mapping and basic geographic information science. The course describes the history of maps and their evolution, cartographic representation, map interpretation, and geodesy.

9. **Teaching Assistant:** Geography 20: The Geography of Surfing, Spring 2009; Spring 2010. The geography of surfing distills information from earth systems science, human geography, and regional science utilizing surfing as a common thread. The first third of the course examines the human dimension of surfing such as the movements of Polynesian peoples, origins of surfing, and subsequent spread of surfing 'culture' and knowledge. The second third of the course examines wave formation and what makes a good surf break occur from an earth systems science lens, and the final third of the course focuses on surfing from a regional science perspective with emphasis on economic geography and the spread and expansion of the surfing industry through board design, creation, and shaping as well as through clothing lines, media, and tourism.

10. **Teaching Assistant:** Geography 101: Transportation Futures, Fall 2008; Fall 2009; Fall 2010. This course gives an overview of transportation, particularly how infrastructure design and implementation have occurred in the United States. Current goals as well as sustainable strategies and emerging technologies are also discussed with respect to emissions, air pollution, and automotive and community design.

11. **Teaching Assistant:** Geography 191: Introduction to Optimization Methods for Geographic Problems, Winter 2011. This course is an introduction on how to solve geographic problems utilizing mathematical programming and operations research methods and techniques. Focus is given to mathematical model building with respect to geographic problems as well as major geographic problems such as transportation problems, traveling salesman problems, and other related location problems such as maximal covering, p-median problems, etc.

SERVICE

Stanislaus County, Modesto, CA

2017 – Present GIS Analyst, Poll Worker Training Presenter

University of California, Santa Barbara

2008 – 2016	Member of the Department of Geography Computing Committee
2014 – 2015	Department of Geography Graduate Student Faculty Search Committee Representative
2014	Department of Geography Spring Insight Student Ambassador
2010 – 2012	Department of Geography Graduate Student Faculty Representative
2008 – 2010	Member of the UCSB Graduate Student Association Assembly
2008 – 2009	Member of the Department of Geography Colloquium Committee

California Polytechnic State University, San Luis Obispo

2008 Department of History Student Faculty Search Representative

Journal Reviews

International Journal of Geographical Information Science
International Regional Science Review
Geographical Analysis

Professional Associations

Regional Science Association International (RSAI)
American Association of Geographers (AAG)
Institute for Operations Research and the Management Sciences (INFORMS)

LANGUAGES

Spanish; Fluent in Spanish and able to read and write proficiently.
Mandarin Chinese; currently learning to speak and read.

PROFESSIONAL SKILLS

Esri's ArcGIS geographic software suite
Q-GIS
Microsoft Visual Studio; VisualBasic.net
Xpress-Mosel mathematical programming language and solver
Lingo mathematical programming language and solver
MATLAB
Python

REFERENCES

1. Dr. Richard L. Church
   1832 Ellison Hall
   Department of Geography, UCSB
   (805) 456-2832
   church@geog.ucb.edu

2. Marnie Ardis
   Assistant Clerk Recorder
   Stanislaus County
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3. Dr. Alan T. Murray
   1832 Ellison Hall
   Department of Geography, UCSB
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4. Dr. Stuart Sweeney
   1832 Ellison Hall
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5. Dr. Daniel R. Montello
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