

**ANTHROPOLOGY ANP**

**Department of Anthropology  
College of Social Science**

**200 Navigating Another Culture**

Fall, Spring, Summer. 2(0-4)

Understanding how cultural differences shape perspectives and behavior. Adapting to a new cultural setting.

**201 Introduction to Cultural Anthropology**

Fall, Spring, Summer. 3(3-0)

Origins and diversity of cultural systems. Theories of culture. Patterns of kinship. Religious, economic, and political institutions.

**203 Introduction to Archaeology**

Fall, Spring. 3(3-0) SA: ANP 360

Theory, methodology, and techniques of archaeology. Applications to questions about past human behavior. History and concepts of archaeology as an anthropological subdiscipline.

**204 Introduction to Medical Anthropology**

Summer. 3(3-0)

Concepts, methods and theoretical approaches of the field of medical anthropology.

**205 Navigating United States Culture**

Fall, Spring, Summer. 3(3-0)

Anthropological perspectives on social and cultural patterns that shape life in the United States. Includes gender, language, race and ethnicity, subcultures, values, class, manners, food. Ethnographic studies, and methods, as tools to better understand U.S. culture.

**206 Introduction to Physical Anthropology**

Fall, Spring. 3(3-0) SA: ANP 202, ANP 340

Problems, data, and methods of physical anthropology. Human genetics, hominid evolution, primate studies, human osteology, and human diversity.

**220 Gender Relations in Comparative Perspective**

Spring. 3(3-0)

Gender relations in different cultures. Economic and domestic division of labor between the sexes as a factor underlying power differentials.

**236 The Anthropology of Peace and Justice**

Spring of odd years, Summer. 3(3-0) SA: ANP 336

Anthropological, theoretical, ethnographic, and interdisciplinary approaches to the study of peace and justice. Violence, nonviolence, international law, social movements, economic justice, environmental racism, memory and trauma.

**264 Great Discoveries in Archaeology**

Spring. 3(3-0)

Great discoveries in archaeology that have captured the public's imagination and shaped Western thought, from Olduvai Gorge and Stonehenge to Macchu Pichu.

**270 Women and Health: Anthropological and International Perspectives**

Fall. 3(3-0)

Cross cultural perspectives on the health implications of differing life circumstances for women. Women as health-care consumers and providers. Health and women's life cycles.

**320 Social and Cultural Theory**

Fall, Spring. 3(3-0) P: (ANP 201) and completion of Tier I writing requirement

Major theoretical traditions of cultural anthropology. Functionalism, symbolism, structuralism, and contemporary developments.

**321 Anthropology of Social Movements**

Fall. 3(3-0)

How social movements within different cultures around the world organize, create or impede change on the basis of class, religion, race, ethnicity, language, and territory.

**325 Anthropology of the Environment and Development**

Spring. 3(3-0)

Anthropological approaches to contemporary environmental and development issues and their inter-relation.

**330 Race, Ethnicity, and Nation: Anthropological Approaches to Collective Identity**

Spring. 3(3-0) RB: ANP 201

Understanding race and ethnicity. Models analyzing racial, ethnic, and national identities; boundaries; and collective identities and differentiations. Case studies from cultures worldwide.

**362 Archaeology of Foragers to Farmers**

Fall of odd years. 3(3-0) P: ANP 203 or ANP 264

Theories, problems, and issues in the study of foraging and farming as adaptive strategies. Archaeological evidence for the appearance and development of food production in prehistory.

**363 Rise of Civilization**

Spring. 3(3-0) P: ANP 203 or ANP 264

Archaeological evidence for the appearance and development of the world's earliest prehistoric civilizations. The nature of complex societies and the comparative evolution of states.

**364 Pseudoarchaeology**

Fall of odd years. 3(3-0)

Critical survey and discussion of pseudoarchaeological and pseudoscientific ideas about archaeology, archaeologists, and the human past.

**370 Culture, Health, and Illness**

Fall, Spring. 3(3-0) P: (ANP 201 or ANP 204) or completion of Tier I writing requirement

Cross-cultural perspectives on the definition and treatment of illness.

**410 Anthropology of Latin America**

Fall. 3(3-0) P: Completion of Tier I Writing Requirement R: Not open to freshmen.

Comparative analysis of significant social issues confronting contemporary Latin American countries.

**411 North American Indian Ethnography**

Fall. 3(3-0) P: ANP 201

Social and cultural patterns of North American Indian societies. History, economy, politics, social organization, religion, and social change.

**412 Method and Practice in Digital Heritage**

Spring. 3(3-0) P: ANP 201 or ANP 203 or ANP 204 or ANP 206 or approval of department

The application of digital methods and computational approaches to heritage questions, data, materials, collections.

**414 Anthropology of South Asia**

Fall of even years. 3(3-0) P: ANP 201

Anthropology of India, Pakistan, Nepal, Bangladesh, and Sri Lanka. Religion, social organization, village life, urban structures, economic organization, history, and social change.

**415 China: Culture and Society**

Fall of odd years. 3(3-0) P: ANP 201

Socioeconomic and cultural continuity and change from traditional civilization to the contemporary state and the communist period. Village and urban society and their relationships.

**417 Introduction to Islam in Africa**

Spring of odd years. 3(3-0)

Anthropological and historical literature on Islam in Africa. Spread of Islam, colonialism, slave trade, conversion, migration, prayer, Islamic schools, gender, ethnicity, human rights

**419 Anthropology of the Middle East**

Fall. 3(3-0) P: ANP 201

Anthropological literature of the Middle East and North Africa. Cultural variation, religion, ethnicity, kinship, gender, representation, and cultural, political, and economic transformation.

**420 Language and Culture**

Fall, Spring. 3(3-0) Interdepartmental with English. Administered by Anthropology. P: (ENG 302 or ANP 201 or ANP 320 or LIN 200 or LIN 401) and Completion of Tier I Writing Requirement

Domain, issues, and methods of cultural linguistics. Relationship between language and culture. Language and ethnicity, status, and role. Pidgin and Creole languages. Crosscultural communication.

**422 Religion and Culture**

Fall, Spring. 3(3-0) P: (ANP 201) or completion of Tier I writing requirement

The anthropology of religion and the symbolic analysis of ritual. Theoretical and ethnographic literature.

**423 Psychological Anthropology**

Spring of even years. 3(3-0) P: ANP 201

Cross-cultural perspectives on culture and personality. Enculturation, life-cycle, person and self, emotion and cognition, mental illness.

**425 Issues in Medical Anthropology**

Fall. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. P: ANP 201 or ANP 204 SA: ANP 435

Selected topics in the anthropological investigation of health issues with an emphasis on critical analysis of cultural, historical, and conceptual bases for trends in health research. Topics vary.

## ANP—Anthropology

- 426 Urban Anthropology**  
Spring of odd years. 3(3-0)  
The anthropological approach to urban issues. Cross-cultural perspectives on the informal economy, power, ideology, and community.
- 429 Ethnographic Field Methods**  
Fall, Spring. 4(3-2) P: (ANP 201) and completion of Tier I writing requirement R: Not open to freshmen or sophomores.  
Field research in cultural anthropology. Research design, participant observation, relationship of techniques to methods, and ethics.
- 431 Gender, Environment and Development**  
Fall of odd years. 3(3-0) P: ANP 201 RB: Course work in international development and/or gender studies.  
Relationship among processes of environmental change, development and gender differentiation. Anthropological perspectives. Case studies of major theoretical approaches. Gendered participation environmental movements, organizations.
- 432 American Indian Women**  
Fall of even years. 3(3-0) P: ANP 201 RB: Background in social sciences.  
Role of women in a variety of North American Indian cultures, both traditional and contemporary, using autobiography, life history, historical biography, ethnography, and fiction. Interaction of Indian women and their cultures with Western European and American cultures.
- 433 Contemporary American Indian Communities**  
Spring. 3(3-0)  
American Indian communities today, both reservation and urban, including issues of tribalization, Pan-Indianism, culture change and revitalization, economic development, federal policy, religious freedom, and gender roles.
- 436 Globalization and Justice: Issues in Political and Legal Anthropology**  
Spring of odd years. 3(3-0) P: (ANP 201 or concurrently) or completion of Tier I writing requirement  
Anthropological perspectives on issues of justice linked to global forces of transnational capitalism, economic development, global governance, and international law.
- 437 Asian Emigrant Communities: A Global Perspective**  
Spring of odd years. 3(3-0)  
Cross-cultural study of emigrant communities of people of Asian descent around the world. Anthropological study of how ideas of race, ethnicity, and national identity are constructed over time and space.
- 439 Human Rights: Anthropological Perspectives**  
Spring of even years. 3(3-0) P: (ANP 201 or concurrently) or completion of Tier I writing requirement  
Cross-cultural study of human rights. Anthropological perspective on the role of law, customs, values, and politics in defining, organizing, and understanding individual and collective rights.
- 440 Hominid Fossils**  
Spring of odd years. 3(3-0) P: ANP 206  
Theories of human evolution during the past five million years fossil evidence.
- 441 Osteology and Forensic Anthropology**  
Spring, Summer of even years. 4(3-2) Summer: Abroad. P: ANP 206 or CJ 210  
Human bone and skeletal biology and analysis. Methods of forensic anthropology. Analysis of skeletal remains, forensic pathology, and forensic archaeology.
- 443 Human Adaptability**  
Fall. 3(3-0) P: ANP 206  
Human adaptation to physical, biological and social environments. Adaptive models from ecology, demography, genetics, physiology, nutrition and medicine. Theoretical and methodological issues in human adaptation studies across various populations.
- 451 European Archaeology**  
Spring of even years. 3(3-0) P: ANP 203 or ANP 264  
Patterns of change in technology, subsistence, economy, settlement, social organization, and political complexity from the earliest human occupation through the Iron Age. Major issues in European archaeology.
- 452 North American Archaeology**  
Spring. 3(3-0) P: ANP 264 or ANP 203  
Characteristics and processes of North American archaeology on a regional level. Economic, social, political and technological change through time.
- 455 Archaeology of Ancient Egypt**  
Fall of even years, Summer. 3(3-0) P: ANP 203 or ANP 264 or approval of department  
The archaeology of ancient Egypt from the Neolithic through the Greco-Roman period.
- 461 Method and Theory in Historical Archaeology**  
Fall of odd years, Summer. 3(3-0) Summer: Europe. P: ANP 203  
Theory and methodology in historical archaeology and its relation to history and anthropology.
- 462 Frontiers and Colonization in Historical Archaeology**  
Spring of even years. 3(3-0) P: ANP 203  
Cultural dynamics and historical archaeological research in frontier and colonizing situations. European expansion in North America.
- 463 Laboratory Methods in Archaeology**  
Spring of odd years. 3(2-2) P: ANP 203 or ANP 464  
Preparation and preservation of archaeological data. Conservation, cleaning, cataloguing, and classification. Analysis of lithics, ceramics, faunal and floral remains, metals, and glass.
- 464 Field Methods in Archaeology**  
Summer. 2 to 6 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P: ANP 203 or approval of department  
Field research. Survey, excavation, mapping, data recording, and field laboratory procedures.
- 465 Field Methods in Digital Heritage**  
Summer of even years. 6(6-0) RB: Undergraduate Anthropology Majors; Advanced Undergraduate students in the College of Social Science.  
Applied experience in the tools and techniques required to creatively apply digital technology to heritage materials and questions.
- 471 The Anthropology of Alternative Medicine**  
Fall of odd years. 3(3-0) P: (ANP 201) and completion of Tier I writing requirement RB: ANP 270 or (ANP 370 or concurrently)  
Anthropological study of alternative medicine and ethnomedicine in the United States and around the world. Cross-cultural study of concepts of health and illness, diagnosis, and treatment.
- 475 Organizational Anthropology**  
Fall. 3(3-0) RB: Acquaintance with issues of culture, power, and communication that occur in geographically dispersed teamwork from any area of endeavor. Ability to report on issues to highlight effective practices and pitfalls. R: Open to juniors or seniors or graduate students.  
Anthropological study of organizations, focusing on geographically dispersed and culturally disparate organizations.
- 476 Internship in Anthropology**  
On Demand. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. RB: Acquaintance with issues of culture, power, and communication that occur in geographically dispersed teamwork from any area of endeavor. Ability to report on issues to highlight effective practices and pitfalls. R: Open to juniors or seniors or graduate students.  
Internship in anthropology.
- 485 Foundations of Museum Studies**  
Fall. 3(3-0) Interdepartmental with History of Art and Museum Studies. Administered by Museum Studies. R: Open to juniors or seniors or graduate students. SA: AL 485  
Activities, functions, and organization of museums. Changing role of museums as cultural institutions.
- 488 Museum Curatorial Practices**  
Spring. 3(3-0) Interdepartmental with History of Art and Museum Studies. Administered by Museum Studies. R: Open to juniors or seniors or graduate students. SA: HA 488, AL 488  
Methods and practices for the development, care, and use of museum collections in research, education, and exhibition activities.
- 489 Anthropology Capstone Course (W)**  
Fall. 3(3-0) P: (ANP 201 and ANP 206 and ANP 203) and completion of Tier I writing requirement R: Open to seniors in the Anthropology Major.  
Integration of the subdivisions of anthropology. Differences between anthropology and other approaches in the social sciences. Future directions of anthropological inquiry.
- 490 Independent Study**  
Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Approval of department.  
Independent study.

- 491 Topics in Anthropology**  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. P: ANP 201 or ANP 203 RB: or one 300-level anthropology course.  
Selected topics in sociocultural anthropology, archaeology, physical anthropology, anthropological linguistics, or medical anthropology.
- 492 Special Topics in Museum Studies**  
Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with History of Art and Museum Studies. Administered by Museum Studies. R: Open to juniors or seniors or graduate students. SA: AL 492  
Special topics supplementing regular course offerings.
- 810 Anthrohistory: Exploring the Crossroads of Anthropology and History**  
Fall of even years. 3(3-0) Interdepartmental with History. Administered by History. RB: Advanced course work in either anthropology or history. R: Open to doctoral students or approval of department.  
Recent trends in work between anthropology and history. Emphasis on themes of representation, methodology and epistemology.
- 811 Knowledge, Memory, and Archives**  
Fall of odd years. 3(3-0) RB: HST 810  
Readings in recent anthropological work concerning the construction of historical memory, transmission of knowledge, and the power of representation
- 812 Violence and the State: Anthropological Approaches**  
Fall of even years. 3(3-0) RB: ANP 830 or other graduate level theory and writing course in a related discipline in the social sciences or humanities.  
Anthropological perspectives on the state and violence, including: transitional justice, memory, human rights, international justice, sovereignty, nongovernmentality, trauma, evidence, exposure.
- 814 Capitalism and Modernity**  
Spring of even years. 3(3-0)  
Capitalism as a global phenomenon with specific attention to colonial and post-colonial contexts. Development of colonial knowledges. Political and economic transformations associated with modernization and developmentalism. Contemporary dynamics of globalization.
- 815 Transnational Processes and Identities**  
Fall of odd years. 3(3-0)  
Critique of anthropological theories of transnationalism and globalization, modernity, diaspora, public culture, and ethnic identity.
- 820 Language and Cultural Meaning**  
Spring of odd years. 3(3-0)  
Intellectual history of 20th century linguistic thinking. Saussure's influence on cultural anthropology. Post-structuralist approaches.
- 822 Religion and Ritual**  
Fall of even years. 3(3-0) R: Open to graduate students.  
The anthropology of religion and the symbolic analysis of ritual. Theoretical and ethnographic literature.
- 825 International Social Science Research: Methods and Praxis**  
Fall, Spring. 1 to 3 credits. A student may earn a maximum of 3 credits in all enrollments for this course.  
Issues in the design and implementation of anthropological field research. Development of field research proposals.
- 826 International Development: Theory and Practice**  
Spring. 3(3-0) Interdepartmental with Community Sustainability and Forestry and Political Science and Social Science. Administered by Community Sustainability. SA: ACR 826, RD 826  
Evolution of international development theory across disciplines. Changing conceptualizations, measurements, processes and effects of development and poverty. Ethnicity, social class, gender, and community influences on socioeconomic processes. Current issues, concerns, and strategic alternatives.
- 829 Research Methods in Cultural Anthropology**  
Spring of even years. 3(3-0) RB: One course in Statistics. R: Open only to graduate students in Anthropology.  
Methodological underpinnings. Project design, field strategies, research techniques, and methods of data analysis.
- 830 Cultural and Linguistic Anthropological Theory: Key Issues and Debates**  
Fall. 3(3-0) R: Open to graduate students in the Department of Anthropology.  
Key debates in current cultural and linguistic anthropological theory; analytical frameworks and disciplinary genealogies.
- 831 Seminar in Cultural Ecology**  
Fall of even years. 3(3-0) R: Open only to graduate students. Approval of department.  
Anthropological theories for understanding culture as system of mediation between humans and environment. Cultural ecological approaches applied to socio-cultural change and stability.
- 834 Medical Anthropology: Overview**  
Fall. 3(3-0) R: Open to graduate students in the Department of Anthropology or approval of department.  
Anthropological approaches to the study of sickness, disease, and healing. Medical anthropology as a sub-discipline.
- 835 Topics in Medical Anthropology**  
Spring. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. R: Open to graduate students in the Department of Anthropology or approval of department.  
Seminar in the description and analysis of themes in medical anthropology.
- 836 Culture, Resources, and Power**  
Spring of odd years. 3(3-0) R: Open to graduate students. Not open to students with credit in ANP 430.  
Production of knowledge/expertise regarding development, environment, culture, and rights; effects of applying these knowledges.
- 840 Biocultural Evolution**  
Spring. 3(3-0) RB: One course in human evolution. R: Open only to graduate students in the Department of Anthropology.  
Major contemporary issues in evolutionary theory, taxonomy, and the evolution of biology and culture.
- 842 Human Osteology**  
Fall of even years. 5(4-2) R: Approval of department.  
Human bone biology, skeletal anatomy, and osteological analysis.
- 843 Bioarchaeology**  
Fall of odd years. 3(3-0) RB: General courses in archaeology and physical anthropology.  
Relationship between skeletal and archaeological data. Reconstruction of mortuary behavior, individual life histories, and social organization. Specific emphasis on research designs.
- 844 Topics in Forensic Anthropology**  
Fall. 2(1-2) A student may earn a maximum of 4 credits in all enrollments for this course. RB: (ANTR 551 and ANP 842) and/or previous graduate level work in gross anatomy and human skeletal biology.  
Current issues in forensic anthropology. Topics include facial reproduction and identification; laboratory techniques; skeletal histomorphology.
- 845 Paleopathology**  
Fall of even years. 3(3-0) RB: prior coursework in human osteology  
Method and theory related to the study of health and disease in ancient societies through direct and indirect observation of skeletal and dental remains and mummified tissues.
- 846 Quantitative Methods in Anthropology**  
Fall of odd years. 3(3-0) RB: Two semesters of introductory statistical courses R: Open to graduate students in the Department of Anthropology.  
Statistical and data analysis methods, as they apply to anthropological questions.
- 850 Principles of Archaeological Analysis**  
Spring of odd years. 3(3-0) RB: (GEO 465) or approval of instructor. R: Open only to graduate students.  
Formal, spatial, and temporal dimensions of archaeological research design. Appropriate analytic techniques.
- 851 The Analysis of Mortuary Practices**  
Spring of even years. 3(3-0)  
Analysis of mortuary practices, from an archaeological perspective. Examining death from sociocultural, archaeological and bioarchaeological views. History of analysis of mortuary practice.
- 854 Archaeological Theory**  
Fall of even years. 3(3-0) RB: One 300- or 400-level archaeology course. R: Approval of department.  
Archaeological theory and the nature of the archaeological record. Use of archaeological data to test social theories of past human behavior.

## ANP—Anthropology

- 858 Gender, Justice and Environmental Change : Issues and Concepts**  
Fall. 3(3-0) Interdepartmental with Criminal Justice and Community Sustainability and Forestry and Fisheries and Wildlife and Geography and Sociology and Women's Studies. Administered by Community Sustainability. RB: Background in social science, environmental science, or natural resources.  
Issues and concepts related to gender, ecology, and environmental studies. Key debates and theoretical approaches to addressing environmental issues from a gender and social justice perspective. Gender and environment issues and processes from a global perspective.
- 859 Gender, Justice, and Environmental Change: Methods and Application**  
Spring of even years. 3(3-0) Interdepartmental with Forestry and Fisheries and Wildlife and Geography and Resource Development and Sociology. Administered by Anthropology. RB: Background in social science, environmental science, or natural resources.  
Methods and case studies related to gender, ecology, and environmental studies. Methodological and fieldwork issues from a feminist perspective in international and intercultural contexts. Qualitative and quantitative methods for integrating social and environmental data.
- 870 Professional Issues in Anthropology**  
Spring of odd years. 3(3-0) R: Open to graduate students in the Department of Anthropology or approval of department.  
Ethics and professionalism in field work, behavior in academic and non-academic situations.
- 886 Fundamentals of Museum Studies**  
Fall. 3(3-0) Interdepartmental with Community Sustainability and History and Museum Studies. Administered by Museum Studies. R: Open to lifelong graduate students in the College of Arts and Letters or in the Department of Anthropology or in the Department of History. Approval of department. SA: AL 886 Not open to students with credit in MUSM 485.  
Introduction to the history of museums and current practices, standards, issues and ethics related to education, administration, visitor studies and the development, care and use of museum collections.
- 887 Museums and Technology**  
Summer of even years. 3(3-0) Interdepartmental with History and Museum Studies. Administered by Museum Studies. RB: MUSM 888 R: Open to graduate students or lifelong graduate students in the College of Arts and Letters. SA: AL 887  
Theoretical and practical approaches to the way museums, zoos, gardens and other cultural sites use digital media, the web, interactive media and databases to engage the public, create virtual exhibits and web presences, and manage collections. Ways technologies are changing the definition of visitors and visitor experiences and the definitions of museums.
- 890A Individual Readings**  
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Open only to graduate students. Approval of department.  
Advanced study, based on prior preparation, under faculty direction.
- 890B Individual Research**  
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 16 credits in all enrollments for this course. R: Approval of department.  
Graduate student projects under faculty direction.
- 892 Seminar in Anthropology**  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 12 credits in all enrollments for this course. R: Open only to graduate students in Anthropology. Approval of department.  
Studies in selected fields.
- 893 Internship in the Professional Applications of Anthropology**  
Fall, Spring, Summer. 1 to 3 credits.  
Supervised professional experience in federal or state agencies, nonprofit organizations, or corporations related to the professional practice of anthropology.
- 894 Forensic Anthropology Internship in Forensic Pathology**  
Fall, Spring, Summer. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course. P: ANP 842 RB: graduate coursework in human anatomy and skeletal biology  
Supervised professional internship in postmortem analysis. Students will attend autopsies and learn procedures that are relevant for forensic anthropology. Individual research project.
- 895 Special Topics in Museum Studies**  
Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Museum Studies. Administered by Museum Studies. RB: MUSM 485 or MUSM 886 SA: AL 895  
Current issues in museum studies.
- 897 Practicum in Museum Studies**  
On Demand. 1 to 3 credits. A student may earn a maximum of 6 credits in all enrollments for this course. Interdepartmental with Community Sustainability and History and Museum Studies. Administered by Museum Studies. SA: AL 897 C: MUSM 485 concurrently or MUSM 886 concurrently.  
Practical experience in museum studies.
- 899 Master's Thesis Research**  
Fall, Spring, Summer. 1 to 8 credits. A student may earn a maximum of 99 credits in all enrollments for this course. R: Open only to graduate students in Anthropology. Approval of department.  
Master's thesis research.
- 999 Doctoral Dissertation Research**  
Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 36 credits in all enrollments for this course. R: Open to graduate students. Approval of department.  
Doctoral dissertation research.