Term Information

Effective Term   Autumn 2021
Previous Value   *Summer 2012*

Course Change Information

What change is being proposed? (If more than one, what changes are being proposed?)

number, title, repeatability, and description

What is the rationale for the proposed change(s)?

We are making these changes due to our Anthropology PhD program redesign.

What are the programmatic implications of the proposed change(s)?

(e.g. program requirements to be added or removed, changes to be made in available resources, effect on other programs that use the course)?

N/A

Is approval of the requrest contingent upon the approval of other course or curricular program request? No

Is this a request to withdraw the course? No

General Information

Course Bulletin Listing/Subject Area	Anthropology
Fiscal Unit/Academic Org	Anthropology - D0711
College/Academic Group	Arts and Sciences
Level/Career	Graduate, Undergraduate
Previous Value	*Graduate*
Course Number/Catalog	5005
Previous Value	*8892.11*
Course Title	Quantitative Analyses
Previous Value	*Seminars in Physical Anthropology: Quantitative Methods*
Transcript Abbreviation	Quantitive Anlys
Previous Value	*Quantitive Methods*
Course Description	This course will review the most common quantitative techniques applied in the anthropological and other social sciences, focusing on the different research questions that could require these quantitative techniques.
Previous Value	*Quantitative methods.*
Semester Credit Hours/Units	Fixed: 3
Previous Value	*Variable: Min 2 Max 6*

Offering Information

Length Of Course	14 Week, 12 Week, 8 Week, 7 Week, 6 Week
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Previous Value	*Yes*
Previous Allow Multiple Enrollments in Term	*Yes*
Previous Max Credit Hours/Units Allowed	*6*
Previous Max Completions Allowed	*3*

Course Components	Seminar
Grade Roster Component	Seminar
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus

Prerequisites and Exclusions

Prerequisites/Corequisites	
Exclusions	
Electronically Enforced	No

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	45.0202
Subsidy Level	Doctoral Course
Intended Rank	Junior, Senior, Masters, Doctoral
Previous Value	*Masters, Doctoral*

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors
The course is an elective (for this or other units) or is a service course for other units

Previous Value

The course is an elective (for this or other units) or is a service course for other units

Course Details

Course goals or learning objectives/outcomes

- Understand basic quantitative analyses and when their application is appropriate.
- Understand the reason why quantitative analyses have become such an important part of scientific research.
- Learn how to design a quantitative research project, caring for appropriate sampling techniques.
- Learn how to handle and explore data and how to deal with outliers and missing values.
- Understand the nature of the different types of variables common in anthropological sciences.
- Learn how to apply and interpret results from the most common statistical analyses, and how to apply them to specific research questions.
- Learn how to use R to run statistical analyses and how to interpret the results output.

Previous Value

Content Topic List

- Quantitative methods
- Quantitative analyses

Previous Value

- *Quantitative methods*

Sought Concurrence   No

Attachments

- 5005 syllabus quantitative analysis.docx: Syllabus

  (Syllabus. Owner: Healy,Elizabeth Ann)

- Syllabus 8892.11 2020.pdf: 8892.11 Syllabus

  (Syllabus. Owner: Healy,Elizabeth Ann)

- ANT 5005 on BS Curriculum Map.docx: BS Curriculum Map

  (Other Supporting Documentation. Owner: Healy,Elizabeth Ann)

- ANT 5005 on BA Curriculum Map.docx: BA Curriculum Map

  (Other Supporting Documentation. Owner: Healy,Elizabeth Ann)

Comments

- - Please upload old syllabus at the 8000-level for comparative purposes.

  - Please upload curriculum map showing how 5000-level course will fit in the bachelor's program *(by*

  Vankeerbergen,Bernadette Chantal on 11/17/2020 10:03 AM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Healy,Elizabeth Ann	11/03/2020 03:32 PM	Submitted for Approval
Approved	McGraw,William Scott	11/04/2020 11:56 AM	Unit Approval
Approved	Haddad,Deborah Moore	11/04/2020 05:24 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	11/17/2020 10:04 AM	ASCCAO Approval
Submitted	Healy,Elizabeth Ann	11/19/2020 01:48 PM	Submitted for Approval
Approved	Guatelli-Steinberg,Debra	11/19/2020 01:57 PM	Unit Approval
Approved	Haddad,Deborah Moore	11/19/2020 03:13 PM	College Approval
Pending Approval	Jenkins,Mary Ellen Bigler Hanlin,Deborah Kay Oldroyd,Shelby Quinn Vankeerbergen,Bernadette Chantal	11/19/2020 03:13 PM	ASCCAO Approval

ANTHROPOLOGY 5005
QUANTITATIVE ANALYSES

Instructor: Brutus Buckeye
brutus.1@osu.edu
4034 Smith Laboratory
Tel. (614) 292-4149

Spring 2021
Hours of instruction: TR 11:10 – 12:30
Classroom: Smith Lab 4094
Office hours: W 12-3 PM or by appointment

COURSE DESCRIPTION

This course will review the most common quantitative techniques applied in the anthropological and other social sciences, focusing on the different research questions that could require these quantitative techniques. The course will focus on research questions raised by students and will use student data, when available, in exercises in order to discuss and interpret the results generated by these quantitative approaches. Special emphasis will be put on the principles behind quantitative methods and when and how to apply statistics, aiming towards creating a broad knowledge of the application of these techniques instead of the mathematical specificities of each test. This course will train the students in the use of the open-source statistical software R and some of its most user-friendly packages (R commander).

READING
Recommended:
-        Sirkin, M. 2005. Statistics for the Social Sciences. SAGE Publications, Inc.
-        Drennan, RD. 2010. Statistics for Archaeologists, 2nd Edition. Springer.
-        Sokhal, RR, Rohlf, FJ. 2011. Biometry. W. H. Freeman

Complementary readings will be made available through Carmen. You are expected to have read the assigned readings once or twice before you come to class. As you read, highlight, take notes, summarize, look up new words or concepts, and come with questions for me and/or your classmates. In short, be prepared to discuss the readings in class and bring the readings to class. I also recommend you to go over the readings once more after class.

COURSE GOALS

The goal is to train students to be proficient in the application of quantitative analysis to research projects and anthropological and other social sciences. This entails that students will be able to:
- Understand basic quantitative analyses and when their application is appropriate.
- Understand the reason why quantitative analyses have become such an important part of scientific research.
- Learn how to design a quantitative research project, caring for appropriate sampling techniques.
- Learn how to handle and explore data and how to deal with outliers and missing values.
- Understand the nature of the different types of variables common in anthropological sciences.
- Learn how to apply and interpret results from the most common statistical analyses, and how to apply them to specific research questions.
- Learn how to use R to run statistical analyses and how to interpret the results output.

LEARNING OUTCOMES

At the end of the course, entails that students will be able to:

1. Design a research project that links theory to research questions, generated data, methods, and data analysis.
   a. Identify the appropriate population, sample, sample size, and sampling techniques from which to generate the necessary data. (C1b)
   b. Identify the appropriate methods to analyze the data to answer the research questions and/or evaluate the hypotheses. (C1c)

2. Conduct Research.
   a. Use appropriate data management protocols. (C2c)
   b. Use appropriate quantitative and/or qualitative data analysis methods. (C2d)

3. Write anthropological contribution of their research to academic audience
   a. Understand the norms and structures of academic communication. (D1a)
   b. Write clearly and in the appropriate format for the selected audience. (D1d)

4. Prepare for a career
   a. Follow ethical and professional guidelines defined by the professional associations relevant to the student's career. (F1a)
   b. Foster collegial relationships. (F1b)

5. Develop basic proficiency in quantitative theory and methods
    a. Understand the basic principles of probability theory and how it relates to statistical inference (LL5a)
    b. Understand how to best use visualization techniques to explore patterns in quantitative data (LL5b)
    c. Learn to use the open-source statistical software R for basic statistical analysis (LL5c)
    d. Use understand the most common univariate and bivariate statistical tests applied to social sciences and use them to analyze quantitative data (LL5d)

ASSESSMENT OF LEARNING OUTCOMES

Classes will be divided into a theoretical lectures and weekly exercises.
The theoretical session will comprise the introduction of the topic for the week, and will cover the theoretical background necessary for students to achieve the five learning outcomes in this course.

Exercises will consist of two complementary parts:

a)   Practical exercises using data provided by instructor that will allow students to practice the analysis of data using the tools and tests discussing in class. Exercises can be done in any software, although it is highly recommended that students do them in R, using R Commander and R Markdown. These exercises are central to the assessment of learning outcome 5 (Develop basic proficiency in quantitative theory and methods).

b)   The analysis of a scientific article that uses the methods discussed in class, aiming at reconstructing the way by which materials and methods, and results introduced the methods applied, reported the results, and interpreted the statistical analyses. Articles will be selected by students, based on their own academic and career interests. This activity will allow students to become proficient in learning outcomes 1 through 4, by allowing them to do critical analysis of article structures, common research design narratives, and the expectations for their academic career paths.

The final examination will consist of a paper structured as a scientific article with the student's own data or data gathered from the literature. The final paper will be written in parts during the semester (Introduction, Material, Methods, Results, Discussion and Conclusions), and will be used to assess collectively learning outcomes 1 to 5. Evaluation of the final papers will follow a rubric that evaluates each of the learning outcomes, and this evaluation will be shared with students during the semester, to guide students' efforts to those outcomes they are not meeting.

Evaluation: Course responsibilities will be weighted in the following way:

Practical Exercises	25%
Article review exercises	25%
Final paper introduction	15%
Final paper Materials and Methods	10%
Final paper Results	10%
Final paper Discussion and Conclusions	15%
Total	100%

Final grades are based on the OSU Standard Scheme. A general guide to how you are doing is: A 93; A- 90-92; B+ 87-89; B 83-86; B- 80-82; C+ 77-79; C 73-76; C- 70-72; D+ 67-69; D 60-66; E< 60.

OFFICE OF DISABILITY SERVICES STATEMENT

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience academic barriers based on your disability (including mental health, chronic or temporary medical conditions), please let me know immediately so that we can privately discuss options. To establish reasonable accommodations, I may request that you register with Student Life Disability Services. After registration, make arrangements with me as soon as possible to discuss your accommodations so that they may be implemented in a timely fashion. SLDS contact information: slds@osu.edu; 614-292-3307; slds.osu.edu; 098 Baker Hall, 113 W. 12th Avenue.

MENTAL HEALTH STATEMENT

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. The Ohio State University offers services to assist you with addressing these and other concerns you may be experiencing. If you or someone you know are suffering from any of the aforementioned conditions, you can learn more about the broad range of confidential mental health services available on campus via the Office of Student Life's Counseling and Consultation Service (CCS) by visiting ccs.osu.edu or calling 614 -292-5766. CCS is located on the 4th Floor of the Younkin Success Center and 10th Floor of Lincoln Tower. You can reach an on-call counselor when CCS is closed at 614 -292- 5766 and 24-hour emergency help is also available through the 24/7 National Suicide Prevention Hotline at 1- 800 -273-TALK or at suicidepreventionlifeline.org.

TITLE IX STATEMENT

Title IX makes it clear that violence and harassment based on sex and gender are Civil Rights offenses subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories (e.g., race). If you or someone you know has been sexually harassed or assaulted, you may find the appropriate resources at http://titleix.osu.edu or by contacting the Ohio State Title IX Coordinator, Kellie Brennan, at titleix@osu.edu

DIVERSITY STATEMENT

The Ohio State University affirms the importance and value of diversity in the student body. Our programs and curricula reflect our multicultural society and global economy and seek to provide opportunities for students to learn more about persons who are different from them. We are committed to maintaining a community that recognizes and values the inherent worth and dignity of every person; fosters sensitivity, understanding, and mutual respect among each member of our community; and encourages each individual to strive to reach his or her own potential. Discrimination against any individual based upon protected

status, which is defined as age, color, disability, gender identity or expression, national origin, race, religion, sex, sexual orientation, or veteran status, is prohibited.

COMMITTEE ON ACADEMIC MISCONDUCT STATEMENT

All students should become familiar with the rules governing academic misconduct, especially as they pertain to plagiarism and cheating. Ignorance of the rules is not an excuse and all alleged cases of academic misconduct will be reported to the Committee on Academic Misconduct (COAM).

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct http://studentlife.osu.edu/csc/.

TENTATIVE COURSE SCHEDULE

Week	Content	Assignment	Deadlines	Learning outcome
1	Introduction to course and quantitative methods Research Design; Sampling	Research design narrative		C1b, C1c, C2c, LL5a, LL5b, LL5d
2	Key concepts; Descriptive stats Probability theory and hypothesis testing	Final paper data selection/presentation	Narrative + Presentation	C1b, C1c, C2d, D1a, D1d, LL5a, LL5b
3	Introduction to R, R Commander, and R Markdown			C2c, LL5c
4	Data Presentation	Exercise 1 – Data presentation Article analysis	Hypotheses + presentation	C1b, C1c, C2c, C2d, D1a, D1d, LL5b, LL5c, LL5d
5	Normal distribution; one sample tests	Exercise 2 – one sample test Article analysis	Exercise 1	C2d, D1a, D1d, LL5c, LL5d
6	T-distribution and related tests	Exercise 3 – t-tests Article analysis	Exercise 2 **Final paper Introduction**	C2d, D1a, D1d, F1a, F1b, LL5c, LL5d
7	Analysis of frequencies; Chi-square	Exercise 4 – Chi-square tests Article analysis	Exercise 3	C2d, D1a, D1d, LL5c, LL5d
8	Analysis of Variance Post-hoc tests	Exercise 5 – ANOVA tests Article analysis	Exercises 4 **Final Paper M&M**	C1b, C1c, C2c, C2d, D1a, D1d, F1a, F1b, LL5c, LL5d
9	Linear Regression	Exercise 6 – Linear Regression Article analysis	Exercise 5	C2d, D1a, D1d, LL5c, LL5d
10	Non-parametric tests	Exercise 7 – Non-parametric tests	Exercise 6	C2d, D1a, D1d, LL5c, LL5d
11	Correlations	Exercise 8 – Correlation tests	Exercise 7	C2d, D1a, D1d, F1a, F1b, LL5c, LL5d

			Final Paper Results	
12	Analysis of Covariance Partial correlation	Exercise 9 – ANCOVA and Partial Correlation tests	Exercise 8	C2d, D1a, D1d, LL5c, LL5d
13	Review		Exercise 9	C2d, D1a, D1d, LL5c, LL5d
14	Beyond univariate statistics		**Final Paper**	D1a, D1d, F1a, F1b, LL5b, LL5c, LL5d

PROGRAM GOALS, LEARNING OUTCOMES AND PROFICIENCIES

    A. = program goal
    1. = learning outcome
    a. = proficiency

C. Understand how to design, conduct, and evaluate research that makes theoretical and practical contributions to anthropology and beyond.
    1. Design a research project that links theory to research questions, generated data, methods, and data analysis.
        a. Formulate clear research questions, hypotheses, and objectives. (B)
        b. Identify the necessary data needed to answer research questions, evaluate hypotheses and/or achieve objectives. (B)
        c. Identify the appropriate methods to generate the necessary data. (B)
        d. Identify the appropriate population, sample, sample size, and sampling techniques from which to generate the necessary data. (I)
        e. Identify the appropriate methods to analyze the data to answer the research questions and/or evaluate the hypotheses. (A)
        f. Communicate the research design in a research proposal. (A)
    4. Conduct Research.
        a. Develop relevant methods for data generation. (B)
        b. Apply appropriate data generation methods. (I)
        c. Use appropriate data management protocols. (I)
        d. Use appropriate quantitative and/or qualitative data analysis methods. (I)

D1. Write anthropological contribution of their research to academic audience
        a. Evaluate the different academic venues available for communicating their work. (B)
        b. Select the most appropriate academic venue for their specific work. (B)
        c. Understand the norms and structures of academic communication. (I)
        d. Write clearly and in the appropriate format for the selected audience. (A)

F. Meet ethical, collegial, and professional expectations in research, teaching, collaboration, and other professional endeavors.
        1. Prepare for a career
Follow ethical and professional guidelines defined by the professional associations relevant to the student's career. (I)
Foster collegial relationships. (A)

Quantitative Methods
(Anthropology 8892.11/FA2020)

Mark Hubbe
Office: 4048 Smith Laboratory
e-mail: hubbe.1@osu.edu
Class Time: Thursdays 2:15 – 5:00 pm
Room: 4025 Smith Laboratory

Office Hours: Tuesday and Thursday 10:00-11:30 (**or by appointment [preferred]**)

Readings (recommended):
- Sirkin, M. 2005. Statistics for the Social Sciences. SAGE Publications, Inc.
- Drennan, RD. 2010. Statistics for Archaeologists, 2nd Edition. Springer.
- Sokhal, RR, Rohlf, FJ. 2011. Biometry. W. H. Freeman

Course Description:
This course will review the most common quantitative techniques applied in the anthropological sciences, focusing on the different research questions that could require these quantitative techniques. We will focus on research questions raised by students and will use student data in our exercises in order to discuss and interpret the results generated by these quantitative approaches. We will put special emphasis on the principles behind quantitative methods and when and how to apply statistics, aiming towards creating a broad knowledge of the application of these techniques instead of the mathematical specificities of each test. All exercises will be done in R, but resources will be available for students to also use SPSS and Excel.

Course Goals and Outcomes:
- Understand basic quantitative analyses and when their application is appropriate.
- Understand the reason why quantitative analyses have become such an important part of scientific research.
- Learn how to design a quantitative research project, caring for appropriate sampling techniques.
- Learn how to handle and explore data and how to deal with outliers and missing values.
- Understand the nature of the different types of variables common in anthropological sciences.
- Learn how to apply and interpret results from the most common statistical analyses, and how to apply them to specific research questions.

- Learn how to use R to run statistical analyses and how to interpret the results output.

Course Structure and Grades:
Classes will be divided into a theoretical session and an exercise session.
The theoretical session will comprise the introduction of the topic for the week and the exercises will make up 50% of the final grade. Exercises are due at the beginning of the following class.

Exercises will consist of two complementary parts:
a) Practical exercises using data provided by instructor that will allow students to practice the analysis of data using the tools and tests discussing in class. Exercises can be done in any software, although it is highly recommended that students do them in R, using R Commander and R Markdown.
b) The analysis of a scientific article that uses the methods discussed in class, aiming at reconstructing the way by which materials and methods, and results introduced the methods applied, reported the results, and interpreted the statistical analyses.

The final examination will consist of a paper structured as a scientific article (aiming for high enough quality for submission to a peer-reviewed journal) with the student's own data or data gathered from the literature. The final paper will be written in parts during the semester (Introduction, Material, Methods, Results, Discussion and Conclusions).

The final paper corresponds to 50% of the final grade.

Class Schedule – to be finalized after discussion in class				
Week	Date	Topics	Extra-class activities	Deadlines
1	8/27	1. Introduction to course and quantitative methods 2. Research Design; Sampling	Research design narrative	
2	9/3	3. Key concepts; Descriptive stats 4. Probability theory and hypothesis testing	Final paper data selection/presentation	Narrative + Presentation
3	9/10	5. Introduction to R, R Commander, and R Markdown		
4	9/17	6. Data Presentation	Exercise 1 – Data presentation Article analysis	Hypotheses + presentation
5	9/24	7. Normal distribution; one sample tests	Exercise 2 – one sample test Article analysis	Exercise 1
6	10/1	8. T-distribution and related tests	Exercise 3 – t-tests Article analysis	Exercise 2
7	10/8	9. Analysis of frequencies; Chi-square	Exercise 4 – Chi-square tests Article analysis	Exercise 3
8	10/15	10. Analysis of Variance 11. Post-hoc tests	Exercise 5 – ANOVA tests Article analysis	Exercises 4
9	10/22	12. Linear Regression	Exercise 6 – Linear Regression Article analysis	Exercise 5 **Final paper Introduction**
10	10/29	13. Non-parametric tests	Exercise 7 – Non-parametric tests	Exercise 6
11	11/5	14. Correlations	Exercise 8 – Correlation tests	Exercise 7
12	11/12	15. Analysis of Covariance 16. Partial correlation	Exercise 9 – ANCOVA and Partial Correlation tests	Exercise 8
13	11/21	17. Review		Exercise 9
TG	**11/28**	**THANKSGIVING – NO CLASS**		
14	12/3	18. Beyond univariate statistics		**Final Paper M&M and Results**
*	**12/9**			**Final Paper**

ANTHROPOLOGY MAJOR (BA)

Program Learning Goals:

The general goals of our undergraduate program in Anthropology (BA) are
threefold: (1) attract and train an increasingly diverse and competitive student
body; (2) make graduates more competitive on the job market and in the applicant
pool for graduate/professional school; (3) provide more rigorous and empirically
oriented training within each anthropological subfield.

General goals # 2 and # 3 are met by a curriculum designed to achieve the following
specific learning goals:

(i)   Students are introduced to the breadth of and acquire foundational
        knowledge in each of the three major sub-disciplines within the major
        (physical anthropology, cultural anthropology and archaeology).

(ii)   Students master core concepts in each of the three major sub-disciplines
        within the major (physical anthropology, cultural anthropology and
        archaeology).

(iii)   Students complete elective coursework in each of the three sub-disciplines
        within the major (physical anthropology, cultural anthropology and
        archaeology).

(iv)   Students gain in depth knowledge in one (or more) field by choosing at least
        two additional courses in any sub discipline (physical anthropology, cultural
        anthropology or archaeology) within the major.

CURRICULUM MAP AND PROGRAM LEARNING GOALS: BA

Required Courses	Goal # *i*	Goal # *ii*	Goal # *iii*	Goal # *iv*
ANT 2200	✓			
ANT 2201	✓			
ANT 2202	✓			
ANT 3300 or 3301		✓		
ANT 3401		✓		
ANT 3525		✓		
Elective Courses				
Physical Anthropology Elective			✓	
(Complete at least one of the following)			✓	
ANT 3211			✓	
ANT 3302			✓	
ANT 3304			✓	
ANT 3304			✓	
ANT 3305			✓	
ANT 3315			✓	
ANT 3409			✓	
ANT 3410			✓	
ANT 3411			✓	
ANT 3500			✓	
ANT 3504			✓	
ANT 5005			✓	
ANT 5050			✓	
ANT 5600			✓	
ANT 5607			✓	
ANT 5608			✓	
ANT 5609			✓	
ANT 5610			✓	
ANT 5641			✓	
ANT 5644			✓	
ANT 5645			✓	
ANT 5797			✓	

Cultural Anthropology Elective			✓	
(Complete at least one of the following)			✓	
ANT 3005*			✓	
ANT 3334			✓	
ANT 3400			✓	
ANT 3403			✓	
ANT 3416			✓	
ANT 3418			✓	
ANT 3419			✓	
ANT 3597.01			✓	
ANT 3597.02			✓	
ANT 3623			✓	
ANT 4597.05H			✓	
ANT 5005			✓	
ANT 5050			✓	
ANT 5601			✓	
ANT 5602			✓	
ANT 5621			✓	
ANT 5624			✓	
ANT 5625			✓	
ANT 5626			✓	
ANT 5627			✓	
ANT 5797			✓	
			✓	
Archaeology Elective			✓	
(Complete at least one of the following)			✓	
ANT 3350			✓	
ANT 3402			✓	
ANT 3434			✓	
ANT 3451			✓	
ANT 3452			✓	
ANT 3555			✓	
ANT 3604			✓	
ANT 4597.03H			✓	
ANT 5005			✓	
ANT 5050			✓	
ANT 5603			✓	
ANT 5604			✓	
ANT 5605			✓	
ANT 5614			✓	
ANT 5615			✓	

ANT 5651			✓	
ANT 5797			✓	
			✓	
Free Elective # 1				✓
Free Elective # 2				✓
(complete any 2 additional courses from the list of electives above)				

ANTHROPOLOGICAL SCIENCES MAJOR (BS)

Program Learning Goals:

The general goals of our undergraduate program in Anthropological Sciences are to prepare students for (i) employment that combines critical thinking, communication, and analytical skills with an understanding of human diversity in both time and space and/or (ii) continued study in graduate/professional schools.

These general goals are met via the following specific learning outcomes:

(i) Students will acquire foundational knowledge in each of the three major sub-disciplines within the major (physical anthropology, cultural anthropology and archaeology).

(ii) Students will achieve mastery of core concepts in each of the three major sub-disciplines within the major (physical anthropology, cultural anthropology and archaeology). In so doing, they will acquire rigorous and empirically oriented skills in each sub discipline.

(iii) Students will accumulate breadth of knowledge by completing elective coursework in each of the three sub-disciplines within the major (physical anthropology, cultural anthropology and archaeology).

(iv) Students achieve in depth knowledge in one (or more) field by choosing at least two additional courses in any sub-discipline (physical anthropology, cultural anthropology or archaeology) within the major.

(v) Students achieve competence in basic statistical methods and evolutionary theory.

CURRICULAR MAP AND PROGRAM LEARNING GOALS (BS)

Required Courses	Goal # *i*	Goal # *ii*	Goal # *iii*	Goal # *iv*
ANT 2200	✓			
ANT 2201	✓			
ANT 2202	✓			
ANT 3300		✓		
ANT 3301		✓		
ANT 3401		✓		
ANT 5620		✓		
Elective Courses				
Physical Anthropology Elective			✓	
(Complete at least one of the following)			✓	
ANT 3211			✓	
ANT 3302			✓	
ANT 3304			✓	
ANT 3304			✓	
ANT 3305			✓	
ANT 3315			✓	
ANT 3409			✓	
ANT 3410			✓	
ANT 3411			✓	
ANT 3500			✓	
ANT 3504			✓	
ANT 5005			✓	
ANT 5050			✓	
ANT 5600			✓	
ANT 5607			✓	
ANT 5608			✓	
ANT 5609			✓	
ANT 5610			✓	
ANT 5641			✓	
ANT 5644			✓	
ANT 5645			✓	
ANT 5797			✓	

	Goal # i	Goal # ii	Goal # iii	Goal # IV	Goal # V
Cultural Anthropology Elective			✓		
(Complete at least one of the following)			✓		
ANT 3005*			✓		
ANT 3334			✓		
ANT 3400			✓		
ANT 3403			✓		
ANT 3416			✓		
ANT 3418			✓		
ANT 3419			✓		
ANT 3597.01			✓		
ANT 3597.02			✓		
ANT 3623			✓		
ANT 4597.05H			✓		
ANT 5005			✓		
ANT 5050			✓		
ANT 5601			✓		
ANT 5602			✓		
ANT 5621			✓		
ANT 5624			✓		
ANT 5625			✓		
ANT 5626			✓		
ANT 5627			✓		
ANT 5797			✓		
Archaeology Elective			✓		
(Complete at least one of the following)			✓		
ANT 3350			✓		
ANT 3402			✓		
ANT 3434			✓		
ANT 3451			✓		
ANT 3452			✓		
ANT 3555			✓		
ANT 3604			✓		
ANT 4597.03H			✓		
ANT 5005			✓		
ANT 5050			✓		
ANT 5603			✓		
ANT 5604			✓		
ANT 5605			✓		
ANT 5614			✓		
ANT 5615			✓		

ANT 5651			✓		
ANT 5797			✓		
			✓		
Free Elective # 1			✓		
Free Elective # 2					
(complete any 2 additional courses from the list of electives above)					

Additional Courses					
EEOB 3310					√
STAT 1450 or 2450					√