

Term Information

Effective Term Spring 2016
Previous Value Summer 2012

Course Change Information

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

Addition of Data Analysis GE credit.

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

Students in History 5900 are introduced to exploratory data analysis and the quantitative methods needed to analyze and critically evaluate statistical arguments in social science history.

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)?

No programmatic changes.

Is approval of the request 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	History
Fiscal Unit/Academic Org	History - D0557
College/Academic Group	Arts and Sciences
Level/Career	Graduate, Undergraduate
Course Number/Catalog	5900
Course Title	Introduction to Quantitative Methods in History
Transcript Abbreviation	Quantitativ Method
Course Description	Prepares students to use quantitative methods in historical research and to take intermediate courses in statistics and data analysis.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 7 Week, 4 Week (May Session), 12 Week (May + Summer)
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	No
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture
Grade Roster Component	Lecture
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark

Prerequisites and Exclusions

Prerequisites/Corequisites

Prereq or concur: Any 3000-level History course, and English 1110.xx; or Grad standing; or permission of instructor.

Exclusions

Not open to students with credit for 596.

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code

54.0101

Subsidy Level

Doctoral Course

Intended Rank

Junior, Senior, Masters, Doctoral

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Data Analysis

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

Previous Value

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

Course Details

Course goals or learning objectives/outcomes

- To build students' confidence and quantitative intuition before introducing them to classical statistics.
- To prepare students for the intermediate sequence in statistics offered by the Department of Statistics and for the quantitative sequences offered by the Departments of Sociology and Political Science.
- To improve students' quantitative skills and to stimulate interest in quantitative methods and social science history.

Previous Value

Content Topic List

- Quantitative Methods in History and Social Science History
- Exploratory Data Analysis and Classical Statistics
- Single-Variable Distributions
- Multivariate Distributions
- Time Series
- Tables
- Regression
- Crosstabs
- Multilevel modeling
- Correlation

COURSE CHANGE REQUEST
5900 - Status: PENDING

Last Updated: Vankeerbergen,Bernadette
Chantal
04/16/2015

Attachments

- History 5900 Assignments.doc: History 5900 Assignment List
(Other Supporting Documentation. Owner: Bowerman,Ashley E.)
- History 5900 Concurrence - Dept. of Statistics.pdf: Statistics Concurrence Letter
(Concurrence. Owner: Bowerman,Ashley E.)
- History 5900 Assessment.docx: History 5900 Assessment Plan
(GEC Course Assessment Plan. Owner: Bowerman,Ashley E.)
- History Curriculum Map.doc: History Curriculum Map
(Other Supporting Documentation. Owner: Bowerman,Ashley E.)
- History 5900 Syllabus - Updated.doc: History 5900 Syllabus
(Syllabus. Owner: Bowerman,Ashley E.)

Comments

- Updated syllabus attached; Historical Study GE removed. (by Bowerman,Ashley E. on 04/14/2015 04:11 PM)
- This is an application to teach an introductory course, and the Department of Statistics is the clearing house for reviewing GE Data Analysis applications, not Data Analytics. This is a GE Data Analysis course for humanists (and students generally) who fear math. Both Bill Notz and Roth have published on teaching methods for statistics. (by Baker,Paula M on 02/20/2015 12:16 PM)
- Wouldn't concurrence from data analytics be helpful? (by Heyssel,Garett Robert on 02/19/2015 09:04 PM)

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Bowerman,Ashley E.	02/10/2015 10:16 AM	Submitted for Approval
Approved	Baker,Paula M	02/10/2015 10:20 AM	Unit Approval
Revision Requested	Heyssel,Garett Robert	02/19/2015 09:04 PM	College Approval
Submitted	Baker,Paula M	02/20/2015 12:16 PM	Submitted for Approval
Approved	Baker,Paula M	02/20/2015 12:17 PM	Unit Approval
Approved	Heyssel,Garett Robert	03/20/2015 07:49 PM	College Approval
Revision Requested	Vankeerbergen,Bernadette Chantal	04/03/2015 11:08 AM	ASCCAO Approval
Submitted	Bowerman,Ashley E.	04/14/2015 04:11 PM	Submitted for Approval
Approved	Baker,Paula M	04/14/2015 04:24 PM	Unit Approval
Approved	Heyssel,Garett Robert	04/14/2015 06:57 PM	College Approval
Pending Approval	Nolen,Dawn Vankeerbergen,Bernadette Chantal Hanlin,Deborah Kay Jenkins,Mary Ellen Bigler Hogle,Danielle Nicole	04/14/2015 06:57 PM	ASCCAO Approval

History 5900
Prof. Randolph Roth

Class hours:
Office hours:
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History 5900: Introduction to Quantitative Methods in History

The goal of the course is to improve students' quantitative skills and to stimulate interest in quantitative methods and social science history. The course prepares students to conduct research on topics that involve quantitative evidence. The course also prepares students for the intermediate sequence in statistics offered by the Department of Statistics and for the quantitative sequences offered by the Departments of Sociology and Political Science. The course will emphasize exploratory, graphic, and visual approaches to data. The goal is to build students' confidence and quantitative intuition before introducing them to classical statistics.

Required texts:

Paul F. Velleman and David C. Hoaglin, *Applications, Basics, and Computing of Exploratory Data Analysis* (on Carmen– out of print, reproduced by permission of publisher)

Edward R. Tufte, *Data Analysis for Politics and Policy* (on Carmen – out of print, reproduced by permission of publisher)

David S. Moore and William I. Notz, *Statistics: Concepts and Controversies*, 8th ed. (Freeman 2014). ISBN-13: 978-1-4641-2373-3.

Recommended:

Leonard Mlodinow, *The Drunkard's Walk: How Randomness Rules Our Lives* (Vintage 2009) ISBN-13: 978-0307275172

Stanley Lieberman, *Making It Count: The Improvement of Social Research and Theory*

Charles C. Ragin, *The Comparative Method: Moving Beyond Quantitative and Qualitative Strategies*

Loren Haskins and Kirk Jeffrey, *Understanding Quantitative History* (on Carmen– out of print, reproduced by permission of publisher)

Barbara F. Ryan and Brian L. Joiner, *Minitab Handbook*, latest ed.

Software: MINITAB, JMP, and SPSS

These programs are installed on most computers in OIT computing laboratories, so students can have access to the programs outside of class. JMP and SPSS are free for students through the OIT software site (<https://ocio.osu.edu/software>). Graduate students who are GRAs or GTAs may be able to acquire a free copy of MINITAB through the same OIT software site. The site license is restrictive and requires that the software be used only on campus, that it be loaded on a “university owned” computer, etc. Students who wish to have a copy of MINITAB for their own use can purchase a six-month license from E-Academy’s On-the-Hub store for \$29.99. Web address: <http://www.onthehub.com/minitab/>. The software was designed for PCs, but it can be run on a Mac using Apple Boot Camp software. Minitab Express (a student version of the software, which can also be used for the class) is available in PC or Mac versions from OnTheHub.

Recommended texts for exploratory data analysis:

John W. Tukey, *Exploratory Data Analysis*

Frederick Mosteller and John W. Tukey, *Data Analysis and Regression: A Second Course in Statistics*
David C. Hoaglin, Frederick Mosteller, and John W. Tukey, eds., *Exploring Data Tables, Trends, and Shapes*

Edward R. Tufte, *Envisioning Information*

Edward R. Tufte, *The Visual Display of Quantitative Information*

Edward R. Tufte, *Visual Explanations: Images and Quantities, Evidence and Narrative*

Recommended advanced introductory texts for students who would prefer a more mathematical or computational introduction to classical statistics:

David S. Moore, William I. Notz, and Michael A. Fligner, *The Basic Practice of Statistics*, 6th ed. (Freeman, 2013) ISBN-13: 978-1-4292-9567-3.

George F. Estabrook, *A Computational Approach to Statistical Arguments in Ecology and Evolution*

Texts on the Proper Use of Statistics:

Amir D. Aczel, *Chance: A Guide to Gambling, Love, the Stock Market, and Just about Everything Else*

Darrell Huff, *How to Lie with Statistics*

Donald McCloskey, *The Rhetoric of Economics*

David Salsburg, *The Lady Tasting Tea: How Statistics Revolutionized Science in the Twentieth Century*

Recommended journals:

Historical Methods

Journal of Interdisciplinary History

Social Science History

Data Analysis

Goals: Students develop skills in drawing conclusions and critically evaluating results based on data.

Expected Learning Outcomes: Students understand basic concepts of statistics and probability, comprehend methods needed to analyze and critically evaluate statistical arguments, and recognize the importance of statistical ideas.

Rationale for fulfilling the GE Learning Outcomes for Data Analysis:

Goals of the course that fulfill the GE Learning Outcomes in Data Analysis:

1. Understanding basic concepts of statistics and probability: The course will introduce students to exploratory data analysis by teaching them the methods first developed by John W. Tukey (stem and leaf diagrams, boxplots, resistant lines, resistant smoothers, median polish, rootograms, etc.) and the computational statistical procedures pioneered by George Estabrook (particularly his ACTUS program for analyzing contingency tables with small N's). But the course will draw on these intuitive methods to introduce students to classical statistics (probability, confidence intervals, significance tests, linear regression, Chi-square tests, etc.) by using David S. Moore and William I. Notz, *Statistics: Concepts and Controversies*, the text used in the introductory GE Data Analysis course in the Department of Statistics, to study probability, and Edward R. Tufte, *Data Analysis for Politics and Policy*, to study linear regression. The course will also introduce students to MINITAB, a software package designed to introduce students to exploratory data analysis and classical statistics. JMP and SPSS will be used in class for a handful of assignments.

The assignments are designed to introduce students to the statistical methods used to analyze single variables, two variables, and multiple variables (continuous, categorical, and ordinal), as well as time series.

2. Comprehend methods needed to analyze and critically evaluate statistical arguments: Students will study a number of historical debates in which scholars have used quantitative evidence to support rival theories (e.g. – the causes of social mobility, the characteristics of voters who supported particularly political parties, the causes of violence, life expectancy). We will examine the data used by rival historians to see if their conclusions are justified and if alternative interpretations are more plausible. The readings include Pessen and Bower on Jacksonian politics, Hackney on violence in the American South, Kramer on the influence of income, prices, and unemployment on political behavior, etc.

3. Recognize the importance of statistical ideas: The course will teach students about important advances in science, social science, and the humanities made possible by statistics and quantitative reasoning. Students will also hear short lectures based on Leonard Mlodinow, *The Drunkard's Walk*, a wonderful history of statistical thinking and of the mathematicians who shaped it: Pascal, Gauss, Bayes, et al.

Assignments

We will have regular weekly homework assignments and a take-home final examination. The homework assignments are demanding, so the course will not require a term paper or data collection. The take-home final will require mastery of all the quantitative methods we will study in the course. Class attendance and participation are required.

Graduate students will be required in addition to analyze a body of data available in the published literature in their field (e.g.--voting returns, price series, etc.) and to make a written report of their findings.

Grading:

Discussion and Participation	15%
Weekly Homework Assignments	60%
Final Examination	25%

Grading scale:

1) The grade breakdowns are as follows: A: 92.5 and above; A-: 89.5-92.4; B+: 87.5-89.4; B: 82.5-87.4; B-: 79.5-82.4; C+: 77.5-79.4; C: 72.5-77.4; C-: 69.5-72.4; D: 59.5-69.4; E: below 59.5

2) The expectations for average, good, and excellent work will be spelled out for each particular assignment.

Expectations for Attendance and Exams: Illness and approved University activities (sports, band, etc.) are usually the only acceptable excuse for absence in class. Other absences must be explained to the satisfaction of the professor, who will decide whether omitted work may be made up. **If there will be a problem with the exam dates, you must let me know NOW during the first week of class, so arrangements can be made with the approval of the Department of History.** Unexcused absences will be penalized against the final grade.

Homework Assignments: We will have weekly assignments in quantitative history. We will complete a number of the assignments together in class, but for those that are assigned as homework I would like you to:

1. Edit and annotate the output (in electronic form) of the sessions in which you conducted your analysis. Please record your thoughts on the sheets as you proceed. Note, for instance, if you see something unusual or meaningful in the data or the diagnostic statistics. Think carefully and methodically at each step of your analysis, and follow the routines we develop in class, so that you build good habits of data analysis.
2. Type up a one page analysis of your data and of the major conclusions you've drawn from it. (i.e. -- what the data can and can't tell us, interesting patterns, etc.)

3. Open and save our MINITAB worksheets as portable files. That way, they can be used with any version of MINITAB.

Final Examination: The final examination will be a comprehensive take home exam. It will assign two datasets: one multivariate and the other tabular. You will be asked to perform single variable, two variable, and multivariate analyses on the multivariate dataset, and median polish and ANOVA analyses on the tabular dataset. That means that you will be asked to perform at least once each of the kinds of analysis studied in the course. The write ups should be identical to those you produced throughout the semester in your homework assignments.

Class Schedule

Week 1: Introduction

Exploratory and Confirmatory Data Analysis
Observation versus Experiment
Statistical inference, Model Building, and Social Theory
The History of Violence as a Case Study in the Use of Quantitative Analysis in History

Data transcription, entry, checking, and manipulation
The provenance of data and the need for critical evaluation of sources
Missing and erroneous data
Good and bad samples

Moore and Notz, *Statistics*, Preface and Ch. 1-3.
R. E. Johnson, "History by Numbers," Perspectives: American Historical Association Newsletter (February 1989), 14-18.

Week 2: The Analysis of Single Variables

Distributions
Stem-and-leaf diagrams and histograms
Letter values (medians, hinges, etc.)
Diagnostics (midspreads)

Velleman and Hoaglin, *Exploratory Data Analysis*, Ch. 1-3.
Assignment: Age at death of English monarchs, state populations, illegitimate births in Prussia, and illiteracy in the United States

Week 3: The Analysis of Single Variables

Boxplots

Re-expression / the ladder of powers

Velleman and Hoaglin, *Exploratory Data Analysis*, Ch. 1-3 (review)

Moore and Notz, *Statistics*, 287-308.

David Herlihy, *Medieval Households* (1985), 56-78.

Optional: Ulf Büntgen, et al., "2500 Years of European Climate Variability and Human Susceptibility," *Science* 331 (4 February 2011): 578-582.

Assignment: Household structure and life expectancy in medieval Europe

Week 4: The Analysis of Single Variables

Normal distributions, means, variance, and standard deviations

Chance, randomness, and probability

Moore and Notz, *Statistics*, pp. 271-277, Ch. 13, 17

Assignment: Classical analysis of selected data from Week 2 & 3 assignments

Week 5: Probability

Probability models, simulation, expected values

Moore and Notz, *Statistics*, Ch. 18-20.

Assignment: Sampling census data

Week 6: Probability and Sampling

Confidence intervals and significance tests

Total populations and samples

Random sampling and clustered sampling

Moore and Notz, *Statistics*, Ch. 21-23

Optional: Hubert M. Blalock, "Sampling," *Social Statistics*, rev. 2nd ed. (1979), 553-574.

Assignment: Sampling census data (con't)

Week 7: The Analysis of Two Variables

Time series

Roughing and smoothing

Velleman and Hoaglin, *Exploratory Data Analysis*, Ch. 6

Assignment: Prices, Real Wages, and Economic Output in Early Modern Europe or Colonial America

Week 8: The Analysis of Two Variables

X-Y plots (scatterplots)
Resistant lines

Velleman and Hoaglin, Exploratory Data Analysis, Ch. 4-5

Edward Pessen, "Did Labor Support Jackson? The Boston Story," Political Science Quarterly, 64 (1949), 262-74.

Robert T. Bower, "Note on 'Did Labor Support Jackson? The Boston Story'," *Political Science Quarterly* 65 (1950): 441-444.

Assignment: Voting in Jacksonian Boston

Week 9: The Analysis of Two Variables

Correlation
Bivariate regression

Tufte, *Data Analysis for Politics and Society*, Ch. 1 & 3

Assignment: Voting in Jacksonian Boston

Week 10: The Analysis of Multiple Variables

Multiple regression
Specification of models, multicollinearity, and the ecological fallacy

Tufte, *Data Analysis for Politics and Society*, Ch. 4

Sheldon Hackney, "Southern Violence," *American Historical Review* 74 (1969): 906-925.

Assignment: Southern violence

Week 11: The Analysis of Multiple Variables

Multiple regression continued

Tufte, *Data Analysis for Politics and Society*, Ch. 1, 3, & 4 (review)

Gerald Kramer, "Short-Term Fluctuations in U.S. Voting Behavior, 1896-1964," *American Political Science Review* 65 (1971): 131-143.

Assignment:

Week 12: The Analysis of Two-Way Tables

Coded tables
Median polish

Hoaglin and Velleman, *Exploratory Data Analysis*, Ch. 7 & 8

Assignment: Voting Patterns in New Hampshire, 1896-1968, or Charity Children in Renaissance Florence

Week 13: The Analysis of Categorical Variables

ANOVA and Chi-Square tests

Moore and Notz, *Statistics*, Ch. 24

Assignment: Social mobility

Week 14: The Analysis of Categorical Variables

Computational solutions for tables with small N's: George Estabrook's ACTUS

Assignment: Social mobility (con't)

1. Enrollment Deadlines

"All students must be officially enrolled in the course by the end of the second full week of the semester. No requests to add the course will be approved by the Chair after that time. Enrolling officially and on time is solely the responsibility of the student."

2. Academic Misconduct

"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/>."

Here is a direct link for discussion of plagiarism:

<https://carmenwiki.osu.edu/display/osuwacresources/Rethinking+Plagiarism>

<https://carmenwiki.osu.edu/display/osuwacresources/Winter+2013%3A+Tips+for+Thinking+Broadly+about+Plagiarism%2C+Ethics%2C+and+Writing>

Here is the direct link to the OSU Writing Center: <https://cstw.osu.edu/writing-center>

3. Disability Services

“Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu/>.”

Recommended reading

On quantitative methods in social science history:

Stephen J. Gould, "Mighty Manchester," New York Review of Books (October 27, 1988), 32-35.
J. Morgan Kousser, "The Revivalism of Narrative," Social Science History, 8 (1984), 133-149.
Loren Haskins and Kirk Jeffrey, Understanding Quantitative History, Introduction and Ch. 1 & 2.
Robert F. Berkhofer, A Behavioral Approach to Historical Analysis (1969)
Roderick Floud, An Introduction to Quantitative Methods for Historians (2nd ed., 1979)
Donald N. McCloskey, The Rhetoric of Economics (1985)
Eric Monkkonen, "The Challenge of Quantitative History," Historical Methods, 17 (1984), 86-94.
John S. Nelson, Allan Megill, and Donald N. McCloskey, eds., The Rhetoric of the Human Sciences (1987)
Arthur L. Stinchcombe, Constructing Social Theories (1968)

On Comparative History and Social Theory:

Jack A. Goldstone, "Sociology and History: Producing Comparative History" (1988)
Charles Ragin, The Comparative Method (1987)
Arthur L. Stinchcombe, Theoretical Methods in Social History (1978)
Charles Tilly, Big Structures, Large Processes, Hugh Comparisons (1984)

On measurement and research design:

Otis D. Duncan, Notes on Social Measurement (1984)
Charles Hicks, Fundamental Concepts in Design of Experiments 3rd ed. (1982)
Edward Leamer, Specification Searches: Ad Hoc Inferences with Nonexperimental Data (1978)
Edward Leamer, "Let's Take the Con Out of Econometrics," American Economic Review, 73 (1983), 31-43.

On the use of quantitative evidence by historians of medieval Europe:

David Herlihy and Christiane Klapisch-Zuber, Tuscans and their Families (1985)
Barbara Hanawalt, Crime and Conflict in English Communities, 1300-1348 (1979)
Barbara Harvey, Living and Dying in England, 1100-1540: The Monastic Experience
William A. Jones, "The Monastery of St. Mary's, York" (M.A. thesis, The Ohio State Univ., 1989).

History 5900 Assessment

GE Data Analysis courses might best be assessed with a common instrument, given that the tools and concepts of introductory data analysis courses are similar. For instance, problems could be drawn at random from Moore and Notz, *Statistics: Concepts and Controversies*. If such an instrument were developed by instructors in GE Data Analysis courses, that instrument would be used in History 5900. Such an instrument has not been developed, however, so the progress of students in History 5900 will be assessed in the meantime in the following manner.

1. Description of the specific methods the faculty will use to demonstrate that most students achieve the goals and expected learning outcomes of the GE Data Analysis courses.

Weekly homework assignments will be used to assess the progress of individual students in master the tools, concepts, and techniques of data analysis. Given the capacity of OIT classrooms, the course will have a limited enrollment, so students who have difficulty grasping particular tools, concepts, and techniques will be tutored individually.

Brief, ungraded quizzes will be given during class time throughout the semester to reinforce the students' grasp of those tools, concepts, and techniques.

Brief, ungraded quizzes will be given during class time throughout the semester to test students' critical skills: to see if they can perceive flaws in statistical arguments by historians.

The final examination will be a comprehensive take home examination which will require the use of every tool, concept, and technique that students were introduced to in the course. It will test their ability to analyze datasets that they have not seen before and that pose new descriptive and explanatory challenges.

If time allows, it would be possible to administer a standardized examination to ascertain the degree to which students have understood the basics of probability, hypothesis testing, etc.

2. Explanation of the level of student achievement expected.

Students are expected to achieve an introductory-level understanding of probability and of the basic tools of single variable analysis (medians, hinges, stem-and-leaf diagrams, histograms, boxplots, means, variance, standard deviations, confidence intervals, significance tests, random and clustered sampling, populations), multivariate analysis (scatterplots, time series, smoothing, resistant lines, correlation, regression), and tables

(coded tables, median polish, ANOVA, Chi-square tests, ACTUS). Students are also expected to learn to examine quantitative evidence and analyses critically.

3. Description of the follow-up/feedback process.

All examinations and quizzes will be preserved in electronic form so the progress of students from class to class can be charted. Assignments and lectures have been refined over the years the course has been taught in light of the difficulties that students have encountered in mastering the material. That is why, given the difficulty of data analysis for students in the humanities, the course first introduces the tools and techniques of exploratory data analysis (which are arithmetic and median based) before it introduces the parallel tools and techniques of classical, confirmatory data analysis (which are mathematical, although they can be taught with minimal reference to advanced mathematical concepts).

4. Describe the place of the course in the History curriculum.

The course has been taught in the Department of History every second or third year for the past forty years (formerly as History 596). If GE Data Analysis status is approved, the course will be taught every other year on a regular basis. The place of the course in the History curriculum is unchanged, as is the level at which it is taught.

History 5900
Randolph Roth

The following file contains class and homework assignments that have been used in the course in the past. The prompts in MINITAB need to be updated, and a number of datasets will be changed. But the character of the analyses and the assignments will remain much the same.

Homework Assignments: Analysis of Single Variables

Ages at death of monarchs of the United Kingdom

The data record the ages at death of the rulers of the United Kingdom in the order in which they died since 1066. Make a stem-and-leaf display, a boxplot, a histogram, and a dotplot of these data. Compute the mean, median, and the upper and lower hinges of the distribution. Compute the letter values and the midspreads.

You must first open the homework worksheet (English monarchs). Click on "Editor" and then on "Enable Command Language." Then issue the following commands in the session window:

```
MTB> print c1 c2
```

```
C1 age at death
```

```
C2 name of monarch
```

Number of monarchs: 42

To analyze single variable distributions, start with the following commands or menus:

Stat/EDA/Stem-and-Leaf	(stem-and-leaf diagram)
------------------------	-------------------------

MTB> LVALS C1	(letter values)
---------------	-----------------

Stat/EDA/Boxplot/Simple	(boxplot)
-------------------------	-----------

Graph/Histogram	(histogram)
-----------------	-------------

Graph/Dotplot	(dotplot)
---------------	-----------

MTB> DESC C1	(descriptive statistics)
--------------	--------------------------

Does the analysis suggest that the life expectancies of monarchs are well distributed? Is the distribution stretched to one side and skewed to the other? Does the analysis give us a good understanding of how long monarchs could expect to live?

HINT: partition the data into two sets between the reigns of Anne and George I. Analyze the subsets separately by producing stem-and-leaf diagrams, letters values, boxplots, histograms, and descriptive statistics. Compare your conclusions with the conclusions you drew initially from the entire set of data.

Now make a comparison plot of your two boxplots.

Stat/EDA/ Boxplot/With Groups

What does the comparison boxplot reveal? Can you think of better places to split your data? Or more places to split your data? *Explore* the data and see what patterns emerge.

Populations of the 50 states, 1970

The data give the populations of the 50 states (in millions), according to the 1970 United States census of population. The states are entered in alphabetical order. Make a stem-and-leaf plot of these data and comment on its appearance. What transformation produces a reasonably symmetrical distribution? Make a stem-and-leaf plot of the transformed data. What conclusions can be made?

First, open the homework worksheet (state populations). Click on "Editor" and then on "Enable Command Language." Then issue the following commands:

```
MTB> print c1
```

C1 population of the states (in millions)

Number of states: 50

Analyze the data. Do you see an odd pattern? What is unusual about the extreme values? About the midsummaries? HINT: consult the ladder of powers (Velleman & Hoaglin, 49)

```
MTB> LET C2 = SQRT(C1)    (square roots)
```

```
MTB> LET C3 = LOG(C1)    (natural logarithms, or "ln," base e.  
                          e is approximately 2.718)
```

```
MTB> LET C4 = LOGTEN(C1) (common logarithms, base 10)
```

```
MTB> RAISE C1 2 C5        (squares)
```

```
MTB> RAISE C1 3 C6        (cubes)
```

Now name, print, and analyze your variables. Which transformations are best? Do you see gaps in the distributions? What substantive differences might there be between states on either side of the gaps?

*Life Expectancy of Prussian Infants
Who Died within a Year of Birth, 1882-1896*

The data gives the mean ages in days of Prussian infants who died within a year of birth, classified by year, gender, and legitimacy. Make schematic comparison plots of the four distributions and comment on the appearance of each. Make a table containing the five-number letter value summaries. What conclusions can be drawn?

First, open the homework worksheet (Prussian infants). Click on "Editor" and then on "Enable Command Language." Then issue the following commands:

```
MTB> print c1-c5
```

```
C1 Legitimate males  
C2 Illegitimate males  
C3 Legitimate females  
C4 Illegitimate females  
C5 Year
```

Number of years: 11

1. Which years are outliers? Are those years unusual? Are other years unusual? Do life expectancy rates rise up and down together as the years pass? Is that significant?

2. Make a comparison boxplot of the data. To do so, issue the following commands, which stacks all the data in C1, C2, C3, and C4 into C6 and indexes it by gender and legitimacy in C7:

```
MTB> STACK C1 C2 C3 C4 into C6. [abbreviate: STACK C1-C4 C6.] (NOTE: It is critical to  
end the command in a period. It won't work otherwise.)
```

```
MTB> SET C7
```

```
DATA> 11(1) 11(2) 11(3) 11(4)
```

```
DATA> END.
```

Then make the comparison boxplot.

```
MTB> BOXPLOT C6 * c7
```

What does the comparison boxplot reveal?

3. Transform the data. Can you make the distributions more symmetrical? What is the significance of the square root transformation?

4. Is the data adequate to answer important questions about life expectancy? Do we need more data or different data to determine if female infants have more resistance? better treated? If illegitimate infants receive worse care? [Consider ages of mothers, birth weights, class factors in the availability of health care, socio-economic profile of unwed mothers, death rates, etc. Can we 'control' for these factors? How can data analysis further our search for explanations?]

*Live Birthrates for Women in the United States
1940-1973*

Compare the birthrates for women in the different age groups, using if desirable some transformation to even the spreads. What conclusions can be drawn from these data?

Homework file: birthrates

MTB> print c1-c7

C1 year
C2 age 15-19
C3 age 20-24
C4 age 25-29
C5 age 30-34
C6 age 35-39
C7 age 40-44

Number of years: 13

It may help to plot the birthrates over time for each group of women. For example:

Graph/Scatterplot/Simple

The plot charts the birthrates for women 15-19 (C2) over time (C1), etc.

*Deaths of Monks at the Monastery of
St. Mary's, York, 1258-1333*

The following data describe the 67 monks listed in the chronicles of the monastery at St. Mary's, York and of its cells, for whom the chroniclers recorded both the year of their entry into the monastery and their year of death. Medieval historians, who assume that novices entered monasteries at the age of 19 or 20, use such data to study epidemics and calculate medieval life expectancy. (Monks who transferred to St. Mary's, York from other monasteries are recorded as transfers rather than as new entrants.)

The chronicles did not cover the years 1284-1292.

SOURCE: William A. Jones, "The Monastery of St. Mary's, York: A Study in Medieval Monastic Population" (M. A. thesis, The Ohio State Univ., 1989).

Homework file: monks

ADDITIONAL REFERENCES:

B. Harvey, *Living and Dying in England, 1100-1540: The Monastic Experience* (Oxford: Clarendon, 1993), esp. 112-45, 236-8. [on the monks of Westminster Abbey]

J. Hatcher, "Mortality in the Fifteenth Century: Some New Evidence," *Economic History Review*, 2nd ser., 39 (1986), 19-38. [on the monks of Christ Church, Canterbury]

MTB> print c1-c3

C1 years of service in the monastery
C2 year of death
C3 year of entry into the monastery
C4 cell of the monastery at time of death

0 St. Mary's, York
1 Richmond
2 Wetheral
3 St. Bee's
4 Lincoln
5 Rumbaugh

Number of monks: 67

STEM C2

DOTPLOT C2

Can you tell when epidemics might have occurred? Were the apparent epidemics confined to a particular monastic cell or region in northern England? Were they confined to a particular age group? (HINT: first sort the data by year of death, then plot years of service at death against year of death)

MTB> SORT C3 CARRY ALONG C1 PUT INTO C5-C6.

then name variables C5 and C6

MTB> PLOT C6 * C5

Can you determine how long the typical monk lived? Can you construct a life table for the monks? (i.e. -- a table that records the percentage of monks who are still alive at age 20-24, 25-29, etc.) How would a modern English life table differ from a medieval monastic life table? Note that medieval historians believe they can derive accurate life tables from monastic chronicles. They also claim that monastic life tables demonstrate that life expectancy at age 20 was very different in medieval times than in modern times. Whereas in modern times a twenty-year old is far more likely to die at age 50 or 60 than at age 30 or 40, medieval historians claim that in medieval times a twenty-year old was just as likely to die at age 30 or 40 as at age 50 or 60. They conclude that life expectancy was distributed more randomly across the various ages in medieval times than in modern times.

Have medieval historians made a big mistake?

HINT: CODE the data by period of entry (1257-1283, 1284-1292, 1293-1306) and create a comparative boxplot by period. Then COPY subsets of the data into new columns to partition the data according to period of entry. Analyze the partitioned data. Do you see an unusual pattern? What might account for it? Use the following commands:

MTB> CODE (1257:1283) 1 (1284:1292) 2 (1293:1306) 3 C5 C7

MTB> BOXPLOT C6 * c7

MTB> COPY C5-C6 INTO C8-C9;

SUBC> USE C7 = 1. (copies only the data in C5 & C6 that are indexed as '1' in C7.)

The data from the first period of entry (1257-1283) are now in C8 & C9. You may put the data from the second and third periods into other columns by copying data indexed respectively as '2' and '3' in C7.

The Medieval Household

The late David Herlihy remains the foremost historian of the medieval family. He was a pioneer in the use of quantitative evidence in historical research and a past president of the American Historical Association. The appended chapter is from his Medieval Households. Do you think Herlihy uses quantitative evidence well? Could he have profited from knowledge of exploratory data analysis? From the use of simple plots and graphs? Please pay particular attention in your critical analysis to Tables 3.1 and 3.2.

The class dataset on Tables 3.1 and 3.2 should give you some hints. On Table 3.1, I've calculated the "sex ratio" for each survey entry. On Table 3.2, I've calculated the "sex ratios" for the households of each group of landholders, and the percentage of household members in each group for whom no sex was given.

Several years ago, Professor Herlihy kindly sent us a computer file containing the complete returns of the Parisian Taille of 1313, a comprehensive tax list. It lists the taxpayer (or taxpaying institution), the occupation (or function) of the taxpayer, the street, the neighborhood, etc. If you would like to work with this data, please let me know. We have a published copy of the manuscript tax returns, several maps of medieval Paris, and Herlihy's code book for the computerized data (annotated and revised by Sandy Zale and Leigh Ann Craig, former students at OSU in medieval history).

Homework Assignments: The Analysis of Two Variables – Resistant Lines and Regression

Party Politics in Boston, 1828-1836

The data are drawn from Edward Pessen's study of electoral support for Andrew Jackson and Martin Van Buren in Boston, Massachusetts. Do you believe his data are adequate? His conclusions justified? Did labor support Jackson? Van Buren? Create variables that record the percentage of the vote that the Democratic Party received in the elections of 1828, 1832, and 1836. Study the distributions of each single variable, plot the Democratic percentage of the vote in each election against the average property valuation in each ward, and find the resistant line for each plot.

File: boston elections.mtp

C1 Value 1830
C2 Value 1835
C3 Whig 1828
C4 Democrat 1828
C5 Whig 1832
C6 Democrat 1832
C7 Antimason 1832
C8 Whig 1836
C9 Democrat 1836
C10 Ward number (#1-12)
C11 Population in 1830
C12 Population in 1835
C13 Number of taxpayers possessing property valued over \$2600, 1834
C14 Expenditures for poor relief, 1835

MTB> let c15 = c3 + c4

MTB> let c15 = (c4 / c15) * 100

MTB> name c15 '% D1828'

etc. for each party's percentage of the vote in each year. That will create all the raw data you need in C15-C21.

Follow the following procedures in analyzing each bivariate distribution:

1) X,Y PLOT: Examine the x,y plot for the two variables. Do you see any obvious patterns in the data? Are the points scattered? Do they lie on a line or a curve?

The command that will create an x,y plot of Democratic percentage of the vote in each ward against the assessed valuation of each ward in 1830 is:

```
MTB> plot c15 c1
```

2) R-LINE AND HALF-SLOPE RATIO: Examine the resistant line for the two variables. What is the R-line's slope? What does that say about the relationship between Democratic voting and ward valuation? What is the R-line's intercept? What percentage of the vote will the Democrats receive in a ward whose average assessed valuation is \$1000? What is the half-slope ratio? What does that say about the fit of the R-line? About the possibility and/or desirability of a transformation of the average ward valuation?

The command that will create the resistant line and half-slope ratio for the relationship between Democratic voting and ward valuation is:

```
MTB> rline c15 c1 c22 c23
```

C23 contains the predicted values (on the basis of average ward valuation) of the percentage of the vote that went to the Democrats in 1828. C22 contains the residuals -- the differences between the predicted and actual percentage of the vote that went to the Democrats in 1828.

3) RESIDUAL PLOT: Plot the residuals against the average assessed valuation in 1830. Note that the horizontal axis now represents the R-line. Are the residuals distributed symmetrically above and below the axis? Are more points above or below? Does the fit vary as you move along the x-axis.

Now draw a vertical dividing line across the plot that leaves an equal number of wards to the left and the right. Are the left and right halves of the plot symmetrical? Similar? What might the dissimilarities and asymmetries mean?

The command that creates the residual plot is:

```
MTB> plot c22 c1
```

4) TRANSFORMATIONS: If transformations are indicated, perform them. Which

one fits best? (Check half-slope ratios and residual plots) What connection does it draw between Democratic voting and average valuation?

Perform a similar analysis for:

%Democrat in 1832 vs. the Average Valuation in 1830

%Democrat in 1836 vs. the Average Valuation in 1835

Southern Violence

The following data are drawn from Sheldon Hackney's article on "Southern Violence" and from the Vital Statistics of the United States. Unlike the data in Hackney's article, the data here examine average annual homicide and suicide rates from 1937 (when state-level national data are first available from the census bureau) to 1941 (the last year before the United States entered World War II), not just the rates for 1940. Your initial assignment is to use two-variable resistant lines and /or regression to determine which demographic or economic variable accounts for the greatest variation in a dependent variable or variables of your choice (suicide or homicide rates for nonwhites or whites). Be certain to analyze your single variables and two-variable plots. Examine your diagnostics (residuals, half-slope ratios, standard deviations of the residuals, percent of variation explained, standard deviations of the coefficients, T-ratios) to determine whether "Southern culture" does have an effect on levels independent of demographic and economic forces.

Sources: from the U. S. Department of Commerce, Bureau of the Census

Vital Statistics of the United States (1937-1941) (Washington, D. C.: Government Printing Office, 1939-43). HA203 A3. Includes homicides and suicides by gender and race.

Vital Statistics: Special Reports (1932-6) (Washington, D. C.). HA203 A253. Includes homicides and suicides by gender, but not by race.

Read the MINITAB HANDBOOK for a discussion of Minitab's regression procedures. The data is in: southern violence.mtp

```
MTB> print c1-c22
```

C1 STATE CODE: state number (1-37 are non-South, Arizona through Wyoming; 38-48 are South, Alabama through Virginia)

C2 STATE NAME

C3 WHITE HOMICIDE RATE, 1937-41 (per 100,000 persons per year)

C4 NONWHITE HOMICIDE RATE, 1937-41 (per 100,000 persons per year)

C5 WHITE SUICIDE RATE, 1937-41 (per 100,000 persons per year)

C6 NONWHITE SUICIDE RATE, 1937-41 (per 100,000 persons per year)

C7 W URB: white urbanization (% whites living in towns above 2,500 in population)

C8 W SCHOOL: median years of school completed for white adults age 25 and older

C9 INCOME: median personal income for all races for incomes over \$1

C10 W UNEMPL: percentage of white workforce unemployed

C11 SOUTH: 1 if South, 0 if non-South (Hackney's classification of states)

Try different schemes for classifying states as northern or southern. For Instance, exclude Arizona, Kentucky, Maryland, and Missouri from the North and include them in the South (states which had substantial numbers of Confederate sympathizers during the Civil War).

C12 W POP: total white population in thousands

C13 NONW POP: total nonwhite population in thousands

C14 WHITE IN: median income for whites

C15 NONW IN: median income for nonwhites

C16 W AGE: median age of whites

C17 NONW AGE: median age of nonwhites

C18 AGE: median age of total population

C19 NW URB: nonwhite urbanization

C20 NW SCHOOL: median years of school completed for nonwhite adults

C21 NW UNEMP: percentage of nonwhite workforce unemployed

C22 %N-WHITE: percentage nonwhites in total population

C23-C30 Homicide and suicide rates by race and gender

C31-C34 Homicide and suicide rates by gender

C35-C36 Homicide and suicide rates for all persons

C38-C45 Population by race and gender in 1940

Northern State Codes

Southern State Codes

1 AZ
 2 CA
 3 CO
 4 CT
 5 DE
 6 ID
 7 IL
 8 IN
 9 IA
 10 KN
 11 KY
 12 ME
 13 MD
 14 MA
 15 MI
 16 MN
 17 MO
 18 MT
 19 NB
 20 NV
 21 NH
 22 NJ
 23 NM
 24 NY
 25 ND
 26 OH
 27 OK
 28 OR
 29 PA
 30 RI
 31 SD
 32 UT
 33 VT
 34 WA
 35 WV
 36 WI
 37 WY

38 AL
 39 AR
 40 FL
 41 GA
 42 LA
 43 MS
 44 NC
 45 SC
 46 TN
 47 TX
 48 VA

Dos Commands for Bivariate Regression

The bivariate regression: To regress white homicide rates on white urbanization rates, type:

```
MTB> REGRESS C3 1 C7;
```

```
SUBC> RESIDUALS C50;
```

```
SUBC> PREDICT C51.
```

The command regresses the dependent variable, C3, on 1 independent variable in C7. It stores the residuals in C50 and the predicted values in C51.

Analyze your printout:

1. What is the intercept? What does it mean in substantive terms? What homicide rate does the equation "predict" when the urbanization rate is zero?
2. What is the slope? What does it mean in substantive terms? How much does the equation predict the homicide rate will change for every 10% increase in the level of urbanization?
3. What percentage of the total variation in white homicide rates is "explained" by urbanization? (R^2) Look at a simple plot of white homicide rates against urbanization rates. Why doesn't the regression line fit better? Do the points fall on a line or do they form a different pattern?
4. What is the standard deviation of the residuals? (s) Are we doing a good job of predicting the homicide rates we observe?
5. What are the standard deviations of our intercept and our slope? How large are the T-ratios, the ratios of the coefficients to their standard deviations? A rule of thumb: the larger the T-ratios, the more statistically stable and reliable the coefficients. T-ratios between 2.0 and -2.0 strongly indicate statistical instability and unreliability.

Check for unusual observations: Are there any unusually large or small

observations that may distort our estimates, because they account for a large portion of the total variation in our independent or dependent variable?

Analyze your residuals: Which states does the model fit well? poorly? Try a comparison boxplot of the residuals by Hackney's regional variable.

```
MTB> boxplot C50;
```

```
SUBC> by C11.
```

Do you see a pattern? Does it help to include in the "South" states that had many Confederate sympathizers during the Civil War? (Missouri, Maryland, Kentucky, Arizona)? By analyzing residuals, can you come up with an even better map of the most violent states in the United States?

DOS Commands for Multiple Regression

Multiple regression: To regress white homicide rates on white rates on white urbanization, white schooling, and white unemployment, type:

```
MTB> REGRESS C3 3 C7 C8 C10;
```

```
SUBC> RESIDUALS C50;
```

```
SUBC> PREDICT C51.
```

Check for multicollinearity among your independent variables:

```
MTB> CORR C7 C8 C10
```

A rule of thumb: if the correlations are greater than 0.5 or less than -0.5, multicollinearity can be a problem. If the correlations are greater than 0.7 or less than -0.7, then multicollinearity will definitely be a problem.

Short-Term Fluctuations in Congressional Voting, 1896-1964

The data are from Gerald Kramer's study of the determinants of short-term fluctuations in the votes received by the incumbent party in Congress. Study the single variable distributions and smoothed times series. Then develop a multiple regression model that you believe best describes fluctuations in voting. Does unemployment matter as much as inflation? Changes in monetary income as much as changes in real income?

File: congressional elections.mtp

MTB> print c1-c17

C1 YEAR: (1912, 1918, 1942, and 1944 are missing)

C2 %REPUB: Republican percentage of Congressional vote

C3, C4 INC 0, INC -1: per capita monetary income in election year and in previous year in dollars

C5, C6 UNEMP 0, UNEMP -1: percent unemployed in election year and in previous year

C7, C8 PRICE 0, PRICE -1: prices in election year and in previous year (1929 = 1.00)

C9 TIME: $t = 0$ in 1896, $t = 34$ in 1964

C10 INCUMB: incumbency index: 1 if incumbent president is a Republican, -1 if incumbent president is a Democrat

C11, C12 REAL 0, REAL -1: real per capita income in election year and in previous year in 1929 dollars

C13 Y DIF: proportion change in monetary income times incumbency index

C14 UN DIF: percent change in unemployment times incumbency index

C15 P DIF: proportion change in prices times incumbency index

C16 R DIF: proportion change in real income times incumbency index

C17 COATTAIL: coattail index: 1 if Republican president is elected, -1 if Democratic president is election, and 0 if no presidential election is held in that year

Begin with a multivariate regression model involving six variables: time (C9), change in monetary income (C13), change in unemployment (C14), change in prices (C15), change in real income (C16), and coattail effects (c17).

MTB> regress c2 on 6 predictors in C9 C13-C17 [remember to store residuals, and fits.]

Your assignment is to determine whether this model or a simpler model involving one or more of the four independent variables best characterizes the data.

NOTE: Warning messages appear repeatedly concerning the large influence of the elections of 1920 and 1932 on the regression. Why do those years have such great influence? What happens when one or the other is excluded from the analysis? When both are excluded? How would you interpret the differences in the regressions, statistically and historically? Did Kramer make a mistake?

Homework Assignments: Analysis of Two-Way Tables

Party Politics in New Hampshire, 1896-1968

The following data set records the Democratic vote and the total vote in each presidential election in each county in New Hampshire from 1896 to 1968. Use comparison boxplots and two-way analysis to illuminate the course of New Hampshire presidential politics. Determine from your analysis of the comparison values whether or not reexpression would further our analysis of the data.

File: new hampshire voting.mtp

MTB> print c1-c4

c1 County index number (1 = Belknap . . . 10 = Sullivan)

c2 Year index number (1=1896 . . . 19 = 1968)

C3 Raw Democratic vote

C4 Raw total vote

MTB> let c5 = (c3 / c4) * 100

MTB> name c5 '% Dem'

Conduct a single-variable distribution analysis for the percent Democratic of the presidential vote (C5). Develop a comparison box plot of the data either for the ten counties or the nineteen elections. Then:

MTB> table c2 c1;

SUBC> data c5.

MTB> name c6 'row eff' (for row effects of two-way analysis)

MTB> name c7 'col eff' (for column effects of two-way analysis)

MTB> name c8 'compare' (for comparison values)

Now Conduct the Median Polish

DOS Commands:

MTB> mpolish c5 c2 c1 c9 c10; [data in C5, row index in C2, column index in C1, residuals in C9, fits in C10]

SUBC> comparison c8; [comparison values in C8]

SUBC> effects k1 c6 c7. [common effect in K1, row effects in C6, column effects in C7]

Windows Commands:

- 1) select STAT
- 2) select EDA
- 3) select MEDIAN POLISH

In the Median Polish window, select:

- 1) Response c5
- 2) Row factor c2
- 3) Column factor c1
- 4) Common effect k1 (stores the common effect as a constant)
- 5) Row effects c6
- 6) Column effects c7

7) Comparison values c8

8) Check the boxes for residuals and fits. They will appear in c9 and c10, respectively.

9) Click OK

Your Median Polish is complete. Now let's look at the results:

MTB> print k1. (for the common effect of the two-way table)

MTB> let c6 = c6 + k1 (adds the common effect to the row effects)

MTB> let c7 = c7 + k1 (adds the common effect to the column effects)

MTB> print c1-c10

Study your common effect, your row effects, and your column effects. What do they tell you about voting in New Hampshire?

Conduct a single-variable distribution analysis for the residuals of the two-way analysis (c9). Then:

MTB> table c2 c1;

SUBC> data c9.

MTB> ctable c9 c2 c1

MTB> plot c9*c8 (Plot of residuals against comparison values, pp. 223-240)

MTB> rline c9 c8 (Slope and half-slope ratio of the plot of the residuals against the comparison values. Note that the slope is not equal to zero, but the half-slope ratio is so large and negative that the data do not fall on a line. There is no clear saddle pattern. Hence transformation is not indicated, despite the non-zero slope.)

Look for patterns over time in the smoothed residuals:

Next we must look for patterns over time in the residuals. You must first separate the residuals by county into separate columns.

MTB> unstack c9 into C11-C20;

SUBC> subscripts C1.

Smooth the residuals for each county to determine whether or not a particular county is moving toward the Democratic party or away from it. Use a resistant smoother on each of the unstacked columns, and store your roughs and smooths.

MTB> rsmooth C11 C21 C31

MTB> rsmooth C12 C22 C32

etc., until you reach

MTB> rsmooth C20 C30 C40

Your county roughs are stored in C21-C30 and your county smooths in C31-C40. Now add the common effect (k1) and the appropriate column effect to each smooth (C31-C40) and place the results in C41-C50, so that we can see the smoothed / polished vote for the Democrats in each county over time. Now do comparison plots of the smoothed and polished votes. Don't try to put all ten of the counties on the same graph at once: they'll be too hard to read. Do three or four at a time.

Multiple Plots:

DOS Commands:

MTB> GSTD (to return to standard graphics mode)

MTB> set c51 (to create an index variable for the years of the elections)

DATA> 1896:1968/4 (enter every fourth year from 1896 through 1968)

DATA> end.

To construct, as an example, a multiple plot of the smoothed / polished time series for counties 1, 2, and 6, type:

MTB> MPLOT C41 by C51, C42 by C51, C46 by C51

MTB> GPRO (to return to professional, high-resolution graphics)

Windows Commands:

- 1) Select GRAPH
- 2) Select TIME SERIES PLOT

In the Time Series window, use your smoothed / polished vote for the Democrats in each county over time (C41 through C50) as your Y-values and use the "connect" command (not "symbols") in the Data Display field. Now:

- 1) Click on FRAME
- 2) Click on MULTIPLE GRAPHS
- 3) Click on OVERLAY GRAPHS ON TIMES SERIES PLOT
- 4) Click OK
- 5) Click OK

Now analyze the comparison plots. Which counties change most dramatically over time?

Charity Children in Renaissance Florence
1445-1466

If you prefer, you may analyze this data set instead of the data on New Hampshire politics. The data in 'ospedale.mtw' records the number of admitted each month to the charity hospital in Florence. Do you see seasonal fluctuations? Changes over time? Use median polish and coded table commands to analyze the table, then look at the smoothed residuals over time for each month, to see if the months with the most (or least) admissions are changing over time. Follow the procedures outlined in the handout on the New Hampshire data.

File 'ospedale in florence.mtp'

C1: Year

C2 to C13: Monthly admissions, January-December

C14 Stack

C15 Index mo (Index of month, 1 through 12)

C16 Index yr (Index of year, 1-22)

MTB> Name C17 'row eff'

MTB> Name C18 'col eff'

MTB> Name C19 'compare'

The residuals and fits will appear in C20 and C21, respectively.

Source: Philip Gavitt, *Charity and Children in Renaissance Florence* (Ann Arbor: Univ. of Michigan Press, 1990), p. 212.



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January 22, 2015

Randolph Roth
Professor, Department of History
106 Dulles Hall
230 West 17th Avenue
Columbus, OH 43210

Dear Professor Roth;

On behalf of the Department of Statistics, I am happy to give concurrence to History 5900, Introduction to Quantitative Methods in History, to count toward the GE requirement in Data Analysis. The course meets the requirements of the GE in Data Analysis and looks to be very interesting. I hope your students enjoy the course and you enjoy teaching it.

Sincerely,

A handwritten signature in black ink that reads "William Notz".

William Notz
Vice Chair for Administration and Undergraduate Studies
Department of Statistics
The Ohio State University

Curricular Map that shows how, and at what level, the program's courses facilitate students' attainment of History learning goals.

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
1681		World History to 1500	Beginning	Beginning	Beginning	Beginning
1682		World History from 1500 to the Present	Beginning	Beginning	Beginning	Beginning
2001		Launching America	Intermediate	Intermediate	Intermediate	Intermediate
2001	H	Launching America	Intermediate	Intermediate	Intermediate	Intermediate
2002		Making America Modern	Intermediate	Intermediate	Intermediate	Intermediate
2002	H	Making America Modern	Intermediate	Intermediate	Intermediate	Intermediate
2010		History of American Capitalism	Intermediate	Intermediate	Intermediate	Intermediate
2015		History of American Criminal Justice	Intermediate	Intermediate	Intermediate	Intermediate
2045		History of American Religion to the Civil War	Intermediate	Intermediate	Intermediate	Intermediate
2060		The Battle for the Ohio Country, 1745-1814	Intermediate	Intermediate	Intermediate	Intermediate
2065		Colonialism at the Movies: American History in Film	Intermediate	Intermediate	Intermediate	Intermediate
2066		History of Western Medicine in Film	Intermediate	Intermediate	Intermediate	Intermediate
2070		Introduction to Native American History	Intermediate	Intermediate	Intermediate	Intermediate
2071		American Indian History of the U.S. Midwest	Intermediate	Intermediate	Intermediate	Intermediate
2075		Introduction to U.S. Latino/a History	Intermediate	Intermediate	Intermediate	Intermediate
2079		Asian American History	Intermediate	Intermediate	Intermediate	Intermediate
2080		African American History to 1877	Intermediate	Intermediate	Intermediate	Intermediate
2081		African American History from 1877	Intermediate	Intermediate	Intermediate	Intermediate
2085		Exploring Race and Ethnicity in Ohio: Black Ohio in the 19th Century	Intermediate	Intermediate	Intermediate	Intermediate
2100		Introduction to the Spanish Atlantic World	Intermediate	Intermediate	Intermediate	Intermediate
2105		Latin America and the World	Intermediate	Intermediate	Intermediate	Intermediate
2110		Introduction to Native American Peoples from Mesoamerica	Intermediate	Intermediate	Intermediate	Intermediate
2111		Introduction to Native American People	Intermediate	Intermediate	Intermediate	Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
		of the Andes				
2115		Women and Gender in Latin America	Intermediate	Intermediate	Intermediate	Intermediate
2120		Revolutions and Social Movements in Modern Latin America	Intermediate	Intermediate	Intermediate	Intermediate
2125		The History of Latin America Through Film	Intermediate	Intermediate	Intermediate	Intermediate
2194		Intermediate Undergraduate Group Studies	Intermediate	Intermediate	Intermediate	Intermediate
2201	E	Ancient Greece and Rome	Intermediate	Intermediate	Intermediate	Intermediate
2201	H	Ancient Greece and Rome	Intermediate	Intermediate	Intermediate	Intermediate
2201		Ancient Greece and Rome	Intermediate	Intermediate	Intermediate	Intermediate
2202		Introduction to Medieval History	Intermediate	Intermediate	Intermediate	Intermediate
2203		Introduction to Early Modern Europe	Intermediate	Intermediate	Intermediate	Intermediate
2204	E	Modern European History	Intermediate	Intermediate	Intermediate	Intermediate
2204	H	Modern European History	Intermediate	Intermediate	Intermediate	Intermediate
2204		Modern European History	Intermediate	Intermediate	Intermediate	Intermediate
2205		Themes in the History of Western Civilization, Prehistory to 1600	Intermediate	Intermediate	Intermediate	Intermediate
2210		Classical Archaeology	Intermediate	Intermediate	Intermediate	Intermediate
2211		The Ancient Near East	Intermediate	Intermediate	Intermediate	Intermediate
2212		War in the Ancient Mediterranean World	Intermediate	Intermediate	Intermediate	Intermediate
2213		The Ancient Mediterranean City	Intermediate	Intermediate	Intermediate	Intermediate
2214		Everyday Life in Greece and Rome	Intermediate	Intermediate	Intermediate	Intermediate
2230		Decoding the Middle Ages	Intermediate	Intermediate	Intermediate	Intermediate
2231		The Crusades	Intermediate	Intermediate	Intermediate	Intermediate
2240		Elizabethan England	Intermediate	Intermediate	Intermediate	Intermediate
2250		Empires and Nations in Western Europe, 1500-present	Intermediate	Intermediate	Intermediate	Intermediate
2251		Empires and Nations in Eastern Europe, 1500-present	Intermediate	Intermediate	Intermediate	Intermediate
2260		European Thought and Culture, 19th Century	Intermediate	Intermediate	Intermediate	Intermediate
2261		European Thought and Culture, 20th Century	Intermediate	Intermediate	Intermediate	Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
2270	E	Love in the Modern World	Intermediate	Intermediate	Intermediate	Intermediate
2270	H	Love in the Modern World	Intermediate	Intermediate	Intermediate	Intermediate
2270		Love in the Modern World	Intermediate	Intermediate	Intermediate	Intermediate
2275		Children and Childhood in the Western World	Intermediate	Intermediate	Intermediate	Intermediate
2280		Introduction to Russian History	Intermediate	Intermediate	Intermediate	Intermediate
2301	E	African Peoples and Empires in World History	Intermediate	Intermediate	Intermediate	Intermediate
2301		African Peoples and Empires in World History	Intermediate	Intermediate	Intermediate	Intermediate
2302	E	History of Modern Africa, 1800 - 1960s	Intermediate	Intermediate	Intermediate	Intermediate
2302		History of Modern Africa, 1800 - 1960s	Intermediate	Intermediate	Intermediate	Intermediate
2303	E	History of Contemporary Africa, 1960 - present	Intermediate	Intermediate	Intermediate	Intermediate
2303		History of Contemporary Africa, 1960 - present	Intermediate	Intermediate	Intermediate	Intermediate
2350		Islam, Politics, and Society in History	Intermediate	Intermediate	Intermediate	Intermediate
2351		Early Islamic Society, 610-1258	Intermediate	Intermediate	Intermediate	Intermediate
2375		Islamic Central Asia	Intermediate	Intermediate	Intermediate	Intermediate
2390		Ancient India	Intermediate	Intermediate	Intermediate	Intermediate
2391		Islamic India	Intermediate	Intermediate	Intermediate	Intermediate
2392		Colonial India	Intermediate	Intermediate	Intermediate	Intermediate
2393		Contemporary India and South Asia	Intermediate	Intermediate	Intermediate	Intermediate
2401		History of East Asia in the Pre-Modern Era	Intermediate	Intermediate	Intermediate	Intermediate
2402		History of East Asia in the Modern Era	Intermediate	Intermediate	Intermediate	Intermediate
2450		Ancient and Medieval Jewish History, 300 BCE-1100 CE	Intermediate	Intermediate	Intermediate	Intermediate
2451		Medieval and Early Modern Jewish History, 700-1700 CE	Intermediate	Intermediate	Intermediate	Intermediate
2452		Modern Jewish History 1700-Present	Intermediate	Intermediate	Intermediate	Intermediate
2453		History of Zionism and Modern Israel	Intermediate	Intermediate	Intermediate	Intermediate
2454		History of Anti-Semitism	Intermediate	Intermediate	Intermediate	Intermediate
2455		Jews in American Film	Intermediate	Intermediate	Intermediate	Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
2475	E	History of the Holocaust	Intermediate	Intermediate	Intermediate	Intermediate
2475	H	History of the Holocaust	Intermediate	Intermediate	Intermediate	Intermediate
2475		History of the Holocaust	Intermediate	Intermediate	Intermediate	Intermediate
2500		20th Century International History	Intermediate	Intermediate	Intermediate	Intermediate
2550		History of War	Intermediate	Intermediate	Intermediate	Intermediate
2600		Introduction to Women's and Gender History	Intermediate	Intermediate	Intermediate	Intermediate
2610		Introduction to Women and Gender in the U.S.	Intermediate	Intermediate	Intermediate	Intermediate
2620		Women Changing the World: Histories of Activism and Struggle	Intermediate	Intermediate	Intermediate	Intermediate
2630		History of Modern Sexualities	Intermediate	Intermediate	Intermediate	Intermediate
2641		Global History to 1500	Intermediate	Intermediate	Intermediate	Intermediate
2642		Global History 1500 to the Present	Intermediate	Intermediate	Intermediate	Intermediate
2650		The World Since 1914	Intermediate	Intermediate	Intermediate	Intermediate
2700		Global Environmental History	Intermediate	Intermediate	Intermediate	Intermediate
2701		History of Technology	Intermediate	Intermediate	Intermediate	Intermediate
2702		Food in World History	Intermediate	Intermediate	Intermediate	Intermediate
2703		History of Public Health, Medicine and Disease	Intermediate	Intermediate	Intermediate	Intermediate
2704		Water: A Human History	Intermediate	Intermediate	Intermediate	Intermediate
2705		History of Medicine in Western Society	Intermediate	Intermediate	Intermediate	Intermediate
2706		Animals in Human History	Intermediate	Intermediate	Intermediate	Intermediate
2720		Big History	Intermediate	Intermediate	Intermediate	Intermediate
2725		Power in History	Intermediate	Intermediate	Intermediate	Intermediate
2750	E	Natives and Newcomers: Immigration and Migration in U.S. History	Intermediate	Intermediate	Intermediate	Intermediate
2750	H	Natives and Newcomers: Immigration and Migration in U.S. History	Intermediate	Intermediate	Intermediate	Intermediate
2750		Natives and Newcomers: Immigration and Migration in U.S. History	Intermediate	Intermediate	Intermediate	Intermediate
2752		Social Reform Movements in U.S. History	Intermediate	Intermediate	Intermediate	Intermediate
2797.01		Study at a Foreign Institution	Intermediate	Intermediate	Intermediate	Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	S u f f i x	Title	Goal 1: understandi ng influence of past, how humans view themselves	Goal 2: understand ing factors that shape human activity	Goal 3: understand ing origins of contempora ry issues	Goal 4: critically examining diverse interpretati ons
2797.02		The Western Tradition and Contemporary Issues	Intermediate	Intermediate	Intermediate	Intermediate
2798		Study Tour	Intermediate	Intermediate	Intermediate	Intermediate
2800	E	Introduction to the Discipline of History	Intermediate	Intermediate	Intermediate	Intermediate
2800	H	Introduction to the Discipline of History	Intermediate	Intermediate	Intermediate	Intermediate
2800		Introduction to the Discipline of History	Intermediate	Intermediate	Intermediate	Intermediate
3001		American Political History to 1877	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3002		U.S. Political History Since 1877	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3003		American Presidential Elections	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3005		The United States Constitution and American Society to 1877	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3006		The United States Constitution and American Society since 1877	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3010		Colonial North American to 1763	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3011	E	The American Revolution and the New Nation	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3011	H	The American Revolution and the New Nation	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3011		The American Revolution and the New Nation	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3012		Antebellum America	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3013		Civil War and Reconstruction	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3014		Gilded Age to Progressive Era, 1877-1920	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3015		From the New Era to the New Frontier, 1921-1963	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3016		The Contemporary U.S. since 1963	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3017		The Sixties	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3020		19th Century American Ideas	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3021		20th Century American Ideas	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3030		History of Ohio	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3031		American South to 1860	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3032		History of the U.S. West	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3040		The American City	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3041		American Labor History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3045		American Religious History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3049		War and Dissent in American History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3070	E	Native American History from European Contact to Removal, 1560-1820	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3070	H	Native American History from European Contact to Removal, 1560-1820	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3070		Native American History from European Contact to Removal, 1560-1820	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3071		Native American History from Removal to the Present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3075		Mexican American Chicano/a History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3080		Slavery in the United States	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3081		Free Blacks in Antebellum America	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3082		Black Americans During the Progressive Era	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3083		Civil Rights and Black Power Movements	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3085		African American History Through	Upper	Upper	Upper	Upper

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
		Contemporary Film	Intermediate	Intermediate	Intermediate	Intermediate
3086		Black Women in Slavery and Freedom	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3089		Studies in African American History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3090		Comparative Slavery	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3100		Colonial Latin America	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3101		South America Since Independence	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3102		Central America and the Caribbean since Independence	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3105		History of Brazil	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3106		History of Mexico	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3107		History of Argentina	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3110		The Jewish Experience in Latin America	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3115		History of Medicine and Public Health in Latin America	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3191		Historical Internship	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3193.01		Individual Studies	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3193.02		Individual Studies	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3194		Upper Level Undergraduate Group Studies	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3210		Archaic Greece	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3211		Classical Greece	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3212		Hellenistic Greece	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3214		Women, Gender, and Sexuality in the History of Christianity	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3215		Sex and Gender in the Ancient World	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3218		War in the Ancient Mediterranean World	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3220		The Rise of the Roman Republic	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3221		Rome from the Gracchi to Nero	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3222		The Roman Empire, 69-337 CE	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3223		The Later Roman Empire	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3225		Early Byzantine Empire	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3226		Later Byzantine Empire	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3228		Religion and Society in Late Antiquity	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3229		History of Early Christianity	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3230		History of Medieval Christianity	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3235		Medieval Europe I, 300-1100	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3236		Medieval Europe II, 1100-1500	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3239		Medieval England	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3240		History of the Italian Renaissance, 1250-1450	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3241		History of the Italian Renaissance, 1450-1600	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3242		The Holy Roman Empire (1495-1806)	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3245		The Age of Reformation	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3246		Tudor and Stuart Britain, 1485-1714	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3247		Magic and Witchcraft in Early Modern Europe (1450-1750)	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3249		Early-Modern Europe, 1560-1778	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3250		Revolutionary and Napoleonic Europe, 1750-1815	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3251		History of Europe in the 19th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3252		People on the Move: Migration in Modern Europe	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3253		20th Century Europe to 1950	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3254		Europe Since 1950	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3260		Britain in the 19th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3261		Britain in the 20th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3262		France in the 19th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3263		France in the 20th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3264		19th Century German History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3265		20th Century German History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3266		History of Spain, 1469-Present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3267		Modern Greece	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3268		Eastern Europe in the 19th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3269		Eastern Europe in the 20th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3270		History of World War I	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3275		Religion and its Critics in Modern Thought	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3280		History of Russia to 1700	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3281		Imperial Russian History, 1700-1917	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3282		History of the Soviet Union	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3283		Siberia in World History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3301		History of Modern West Africa, post 1800	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3302		Nationalism, Socialism, and Revolution in Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3303		War and Genocide in 20 and 21st Cent. Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3304		History of Islam in Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3305	E	History of Islamic Movements in West Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3305	H	History of Islamic Movements in West Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3305		History of Islamic Movements in West Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3306		History of African Christianity	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3307		History of African Health and Healing	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3308		History of U.S.-Africa Relations-1900-Present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3309		Critical Issues of 20th Century Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3310		History of African Cinema	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3311		Globalization and Development in Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3351		Intellectual and Social Movements in the Muslim World	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3352		Marginal Groups in the Non-Western World	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3353		Jewish Communities under Islamic Rule	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3354		Islamic Spain and North Africa	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3356		The Ottoman Empire, 1300-1800	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3357		The Middle East in the 19th Century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3358		The Middle East Since 1914	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3360		History of Iran	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3365		History of Afghanistan	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3375		Mongol World Empire: Central Eurasia, 1000-1500	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3376		The Silk Road: Commerce and Culture in Eurasia 200 BCE-1498 CE	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3401		Foundations of Chinese Civilization	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3402		Chinese Empire, 10th – 14th Centuries	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3403		History of Early modern China: 14th-18th century	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3404		Modern China 1750-1949	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3405		Contemporary China 1921-2000	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3410		Studies in Chinese History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3411		Gender and Sexuality in China	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3425		History of Japan before 1800	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3426		History of Modern Japan	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3450		History of Ancient Israel (to 300 BCE)	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3455		Jewish Life from the Renaissance to the Early Enlightenment	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3460		European Jewish History, 1789-1989	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3465		American Jewish History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3470		Messiahs and Messianism in Jewish History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3500	E	U.S. Diplomacy from Independence to 1920	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3500	H	U.S. Diplomacy from Independence to 1920	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3500		U.S. Diplomacy from Independence to 1920	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3501	E	U.S. Diplomacy, 1920-present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3501	H	U.S. Diplomacy, 1920-present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3501		U.S. Diplomacy, 1920-present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3505		U.S. Diplomacy in the Middle East	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3525		19th Century European International History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3526		20th Century European International History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3540		Modern Intelligence History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3550		War in World History, 500-1650	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3551		War in World History, 1651-1899	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3552		War in World History, 1900-present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3560		American Military History, 1607-1902	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
3561		American Military History, 1902 to the Present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3570		World War II	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3580		The Vietnam War	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3590		Wars of Empire	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3597		Contemporary World/Capstone	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3600		Studies in Women's/Gender History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3610		Introduction to Women and Gender in the U.S.	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3612		Asian American Women: Race, Sex, & Representations	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3620		Lesbian, Gay, Bisexual, and Transgender History in the United States, 1940-2003	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3630		Same Sex Sexuality in a Global Context	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3640		Medieval Women – Power, Piety, and Production	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3641		Women and Gender in Early Modern Europe: 1450-1750	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3642		Women in Modern Europe, from the 18th century to the Present	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3650		Families in Historical Perspective	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3651		Happiness in History and Practice	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3675		How to Stage a Revolution	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3680		Religion and Law in Comparative Perspective	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3700		American Environmental History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3701		History of American Medicine	Upper	Upper	Upper	Upper

Required Courses offered by the Unit			Program Learning Goals			
Semester #	S u f f i x	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
			Intermediate	Intermediate	Intermediate	Intermediate
3704		HIV: From Microbiology to Macrohistory	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3705		History of Capitalism in Comparative and Global Perspective	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3710		European Environmental History	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3711		Science and Society in Early Modern Europe	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3712		Science and Society in Modern Europe	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3715		Explorations of Science , Technology and the Environment in East Asia	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3720		Environmental History of Ancient Greece and Rome	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3750		Race, Ethnicity, and Nation in Global Perspective	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3797		Study at a Foreign Institution	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3798.01		Study Tour	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3798.02		Study Tour: World War II	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3798.03		Study Tour: Shanghai, 1750 to 2050	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3798.04		Study Tour: Global Hotspots of the Early Modern World: Buenos Aires	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3800	E	Introduction to Historical Research	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
3800	H	Introduction to Historical Research	Upper Intermediate	Upper Intermediate	Upper Intermediate	Upper Intermediate
4000	E	Readings in Early American History	Advanced	Advanced	Advanced	Advanced
4000	H	Readings in Early American History	Advanced	Advanced	Advanced	Advanced
4000		Readings in Early American History	Advanced	Advanced	Advanced	Advanced
4005	E	Research Seminar in Early American History	Advanced	Advanced	Advanced	Advanced
4005	H	Research Seminar in Early American History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
4005		Research Seminar in Early American History	Advanced	Advanced	Advanced	Advanced
4010	E	Readings in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4010	H	Readings in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4010		Readings in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4015	E	Research Seminar in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4015	H	Research Seminar in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4015		Research Seminar in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
4080	E	Readings in African American History	Advanced	Advanced	Advanced	Advanced
4080	H	Readings in African American History	Advanced	Advanced	Advanced	Advanced
4080		Readings in African American History	Advanced	Advanced	Advanced	Advanced
4085	E	Research Seminar in African American History	Advanced	Advanced	Advanced	Advanced
4085	H	Research Seminar in African American History	Advanced	Advanced	Advanced	Advanced
4085		Research Seminar in African American History	Advanced	Advanced	Advanced	Advanced
4090	E	Readings in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4090	H	Readings in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4090		Readings in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4095	E	Research Seminar in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4095	H	Research Seminar in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4095		Research Seminar in Atlantic World History	Advanced	Advanced	Advanced	Advanced
4100	E	Readings in Latin American History	Advanced	Advanced	Advanced	Advanced
4100	H	Readings in Latin American History	Advanced	Advanced	Advanced	Advanced
4100		Readings in Latin American History	Advanced	Advanced	Advanced	Advanced
4125	E	Research Seminar in Latin American History	Advanced	Advanced	Advanced	Advanced
4125	H	Research Seminar in Latin American History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
4125		Research Seminar in Latin American History	Advanced	Advanced	Advanced	Advanced
4193.01		Individual Studies	Advanced	Advanced	Advanced	Advanced
4193.02		Individual Studies	Advanced	Advanced	Advanced	Advanced
4194		Advanced Undergraduate Group Studies	Advanced	Advanced	Advanced	Advanced
4210	E	Readings in Greek History	Advanced	Advanced	Advanced	Advanced
4210	H	Readings in Greek History	Advanced	Advanced	Advanced	Advanced
4210		Readings in Greek History	Advanced	Advanced	Advanced	Advanced
4211	E	Readings in Roman History	Advanced	Advanced	Advanced	Advanced
4211	H	Readings in Roman History	Advanced	Advanced	Advanced	Advanced
4211		Readings in Roman History	Advanced	Advanced	Advanced	Advanced
4212	E	Readings in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4212	H	Readings in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4212		Readings in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4213	E	Readings in Byzantine History	Advanced	Advanced	Advanced	Advanced
4213	H	Readings in Byzantine History	Advanced	Advanced	Advanced	Advanced
4213		Readings in Byzantine History	Advanced	Advanced	Advanced	Advanced
4215	E	Research Seminar in Greek History	Advanced	Advanced	Advanced	Advanced
4215	H	Research Seminar in Greek History	Advanced	Advanced	Advanced	Advanced
4215		Research Seminar in Greek History	Advanced	Advanced	Advanced	Advanced
4216	E	Research Seminar in Roman History	Advanced	Advanced	Advanced	Advanced
4216	H	Research Seminar in Roman History	Advanced	Advanced	Advanced	Advanced
4216		Research Seminar in Roman History	Advanced	Advanced	Advanced	Advanced
4217	E	Research Seminar in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4217	H	Research Seminar in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4217		Research Seminar in Late Antiquity	Advanced	Advanced	Advanced	Advanced
4218	E	Research Seminar in Byzantine History	Advanced	Advanced	Advanced	Advanced
4218	H	Research Seminar in Byzantine History	Advanced	Advanced	Advanced	Advanced
4218		Research Seminar in Byzantine History	Advanced	Advanced	Advanced	Advanced
4230	E	Readings in Medieval History	Advanced	Advanced	Advanced	Advanced
4230	H	Readings in Medieval History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	S u f f i x	Title	Goal 1: understand ing influence of past, how humans view themselves	Goal 2: understand ing factors that shape human activity	Goal 3: understand ing origins of contempora ry issues	Goal 4: critically examining diverse interpretati ons
4230		Readings in Medieval History	Advanced	Advanced	Advanced	Advanced
4235	E	Research Seminar in Medieval History	Advanced	Advanced	Advanced	Advanced
4235	H	Research Seminar in Medieval History	Advanced	Advanced	Advanced	Advanced
4235		Research Seminar in Medieval History	Advanced	Advanced	Advanced	Advanced
4240	E	Readings in Renaissance and Reformation History	Advanced	Advanced	Advanced	Advanced
4240	H	Readings in Renaissance and Reformation History	Advanced	Advanced	Advanced	Advanced
4240		Readings in Early Modern European History	Advanced	Advanced	Advanced	Advanced
4245	E	Research Seminar in Early Modern European History	Advanced	Advanced	Advanced	Advanced
4245	H	Research Seminar in Early Modern European History	Advanced	Advanced	Advanced	Advanced
4245		Research Seminar in Early Modern European History	Advanced	Advanced	Advanced	Advanced
4250	E	Readings in Modern European History	Advanced	Advanced	Advanced	Advanced
4250	H	Readings in Modern European History	Advanced	Advanced	Advanced	Advanced
4250		Readings in Modern European History	Advanced	Advanced	Advanced	Advanced
4255	E	Research Seminar in Modern European History	Advanced	Advanced	Advanced	Advanced
4255	H	Research Seminar in Modern European History	Advanced	Advanced	Advanced	Advanced
4255		Research Seminar in Modern European History	Advanced	Advanced	Advanced	Advanced
4280	E	Readings in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced
4280	H	Readings in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced
4280		Readings in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced
4285	E	Research Seminar in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced
4285	H	Research Seminar in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced
4285		Research Seminar in Russian, E European and Eurasian History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
4300	E	Readings in African History	Advanced	Advanced	Advanced	Advanced
4300	H	Readings in African History	Advanced	Advanced	Advanced	Advanced
4300		Readings in African History	Advanced	Advanced	Advanced	Advanced
4325	E	Research Seminar in African History	Advanced	Advanced	Advanced	Advanced
4325	H	Research Seminar in African History	Advanced	Advanced	Advanced	Advanced
4325		Research Seminar in African History	Advanced	Advanced	Advanced	Advanced
4350	E	Readings in Islamic History	Advanced	Advanced	Advanced	Advanced
4350	H	Readings in Islamic History	Advanced	Advanced	Advanced	Advanced
4350		Readings in Islamic History	Advanced	Advanced	Advanced	Advanced
4375	E	Research Seminar in Islamic History	Advanced	Advanced	Advanced	Advanced
4375	H	Research Seminar in Islamic History	Advanced	Advanced	Advanced	Advanced
4375		Research Seminar in Islamic History	Advanced	Advanced	Advanced	Advanced
4390	E	Readings in South Asian History	Advanced	Advanced	Advanced	Advanced
4390	H	Readings in South Asian History	Advanced	Advanced	Advanced	Advanced
4390		Readings in South Asian History	Advanced	Advanced	Advanced	Advanced
4395	E	Research Seminar in South Asian History	Advanced	Advanced	Advanced	Advanced
4395	H	Research Seminar in South Asian History	Advanced	Advanced	Advanced	Advanced
4395		Research Seminar in South Asian History	Advanced	Advanced	Advanced	Advanced
4400	E	Readings in Chinese History	Advanced	Advanced	Advanced	Advanced
4400	H	Readings in Chinese History	Advanced	Advanced	Advanced	Advanced
4400		Readings in Chinese History	Advanced	Advanced	Advanced	Advanced
4410	E	Research Seminar in Chinese History	Advanced	Advanced	Advanced	Advanced
4410	H	Research Seminar in Chinese History	Advanced	Advanced	Advanced	Advanced
4410		Research Seminar in Chinese History	Advanced	Advanced	Advanced	Advanced
4425	E	Readings in Japanese History	Advanced	Advanced	Advanced	Advanced
4425	H	Readings in Japanese History	Advanced	Advanced	Advanced	Advanced
4425		Readings in Japanese History	Advanced	Advanced	Advanced	Advanced
4430	E	Research Seminar in Japanese History	Advanced	Advanced	Advanced	Advanced
4430	H	Research Seminar in Japanese History	Advanced	Advanced	Advanced	Advanced
4430		Research Seminar in Japanese History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
4450	E	Readings in Jewish History	Advanced	Advanced	Advanced	Advanced
4450	H	Readings in Jewish History	Advanced	Advanced	Advanced	Advanced
4450		Readings in Jewish History	Advanced	Advanced	Advanced	Advanced
4475	E	Research Seminar in Jewish History	Advanced	Advanced	Advanced	Advanced
4475	H	Research Seminar in Jewish History	Advanced	Advanced	Advanced	Advanced
4475		Research Seminar in Jewish History	Advanced	Advanced	Advanced	Advanced
4500	E	Readings in International History	Advanced	Advanced	Advanced	Advanced
4500	H	Readings in International History	Advanced	Advanced	Advanced	Advanced
4500		Readings in International History	Advanced	Advanced	Advanced	Advanced
4525	E	Research Seminar in International History	Advanced	Advanced	Advanced	Advanced
4525	H	Research Seminar in International History	Advanced	Advanced	Advanced	Advanced
4525		Research Seminar in International History	Advanced	Advanced	Advanced	Advanced
4550	E	Readings in Military History	Advanced	Advanced	Advanced	Advanced
4550	H	Readings in Military History	Advanced	Advanced	Advanced	Advanced
4550		Readings in Military History	Advanced	Advanced	Advanced	Advanced
4575	E	Research Seminar in Military History	Advanced	Advanced	Advanced	Advanced
4575	H	Research Seminar in Military History	Advanced	Advanced	Advanced	Advanced
4575		Research Seminar in Military History	Advanced	Advanced	Advanced	Advanced
4585		History of Literacy	Advanced	Advanced	Advanced	Advanced
4600	E	Readings in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4600	H	Readings in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4600		Readings in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4625	E	Research Seminar in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4625	H	Research Seminar in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4625		Research Seminar in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
4650	E	Readings in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
4650	H	Readings in	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
		World/Global/Transnational History				
4650		Readings in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
4675	E	Research Seminar in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
4675	H	Research Seminar in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
4675		Research Seminar in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
4700	E	Readings in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4700	H	Readings in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4700		Readings in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4705	E	Research Seminar in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4705	H	Research Seminar in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4705		Research Seminar in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
4725	E	Readings in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4725	H	Readings in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4725		Readings in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4730	E	Research Seminar in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4730	H	Research Seminar in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4730		Research Seminar in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
4790	E	Readings in History	Advanced	Advanced	Advanced	Advanced
4790	H	Readings in History	Advanced	Advanced	Advanced	Advanced
4790		Readings in History	Advanced	Advanced	Advanced	Advanced
4795	E	Research Seminar in History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
4795	H	Research Seminar in History	Advanced	Advanced	Advanced	Advanced
4795		Research Seminar in History	Advanced	Advanced	Advanced	Advanced
4797		Study at a Foreign Institution	Advanced	Advanced	Advanced	Advanced
4798		Study Tour	Advanced	Advanced	Advanced	Advanced
4881		Interdepartmental Seminar	Advanced	Advanced	Advanced	Advanced
4998	E	Honors Undergraduate Research in History	Advanced	Advanced	Advanced	Advanced
4998	H	Honors Undergraduate Research in History	Advanced	Advanced	Advanced	Advanced
4998		Undergraduate Research in History	Advanced	Advanced	Advanced	Advanced
4999	E	Honors Undergraduate Research Thesis	Advanced	Advanced	Advanced	Advanced
4999	H	Honors Undergraduate Research Thesis	Advanced	Advanced	Advanced	Advanced
4999		Undergraduate Research Thesis	Advanced	Advanced	Advanced	Advanced
5000		Special Topics in Early American History	Advanced	Advanced	Advanced	Advanced
5010		Special Topics in Modern U.S. History	Advanced	Advanced	Advanced	Advanced
5080		Special Topics in African American History	Advanced	Advanced	Advanced	Advanced
5090		Special Topics in Atlantic World History	Advanced	Advanced	Advanced	Advanced
5100		Special Topics in Latin American History	Advanced	Advanced	Advanced	Advanced
5194		Combined Undergrad and Grad Group Studies	Advanced	Advanced	Advanced	Advanced
5210		Special Topics in Greek History	Advanced	Advanced	Advanced	Advanced
5211		Special Topics in Roman History	Advanced	Advanced	Advanced	Advanced
5212		Special Topics in Late Antique History	Advanced	Advanced	Advanced	Advanced
5213		Special Topics in Byzantine History	Advanced	Advanced	Advanced	Advanced
5230		Special Topics in Medieval History	Advanced	Advanced	Advanced	Advanced
5240		Special Topics in Early Modern European History	Advanced	Advanced	Advanced	Advanced
5250		Special Topics in Modern European History	Advanced	Advanced	Advanced	Advanced
5280		Special Topics in Russian, East European, and Eurasian History	Advanced	Advanced	Advanced	Advanced

Required Courses offered by the Unit			Program Learning Goals			
Semester #	Suffix	Title	Goal 1: understanding influence of past, how humans view themselves	Goal 2: understanding factors that shape human activity	Goal 3: understanding origins of contemporary issues	Goal 4: critically examining diverse interpretations
5300		Special Topics in African History	Advanced	Advanced	Advanced	Advanced
5350		Special Topics in Islamic History	Advanced	Advanced	Advanced	Advanced
5390		Special Topics in South Asian History	Advanced	Advanced	Advanced	Advanced
5400		Special Topics in Chinese History	Advanced	Advanced	Advanced	Advanced
5425		Special Topics in Japanese History	Advanced	Advanced	Advanced	Advanced
5450		Special Topics in Jewish History	Advanced	Advanced	Advanced	Advanced
5500		Special Topics in International History	Advanced	Advanced	Advanced	Advanced
5550		Special Topics in Military History	Advanced	Advanced	Advanced	Advanced
5600		Special Topics in Women's/Gender History	Advanced	Advanced	Advanced	Advanced
5650		Special Topics in World/Global/Transnational History	Advanced	Advanced	Advanced	Advanced
5700		Special Topics in the History of Environment, Technology, and Science	Advanced	Advanced	Advanced	Advanced
5725		Special Topics in the History and Theory of the State	Advanced	Advanced	Advanced	Advanced
5790		Special Topics in History	Advanced	Advanced	Advanced	Advanced
5900		Introduction to Quantitative Methods in History	Advanced	Advanced	Advanced	Advanced