Topics in Sociological Methodology QRQ.

Fall of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

R: Open only to graduate students in Sociology or Sociology-Urban Studies. Approval of department. Evaluation research, experimental or comparative research methods.

QA: SOC 988

Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 12 credits. A student may earn a maximum of 99 credits in all enrollments for this course.

QA: SOC 999

SPANISH

SPN

Department of Romance and Classical Languages College of Arts and Letters

Elementary Spanish I 101.

Fall, Spring. 4(4-1)
R: No previous experience in Spanish or designated score on Spanish placement test. Not open to students with credit in SPN 150.

Practice in using and understanding Spanish to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural

QA: SPN 101, SPN 102

102. Elementary Spanish II

Fall, Spring. 4(4-1)

P: SPN 101 or designated score on Spanish placement test. Not open to students with credit in SPN 150. Further practice in using and understanding Spanish to develop listening, speaking, reading, and writing skills. Pronunciation, grammar, vocabulary, and cultural topics. QP: SPN 102 QA: SPN 102, SPN 103

150. Review of Elementary Spanish
Fall, Spring. 3(3-1)
R: Open to students with high school credit in Spanish and designated score on Spanish placement test. Not open to students with credit in SPN 101 or SPN 102. Review of college first-year Spanish for students who had the language in high school and who need to strengthen communication skills, vocabulary, grammar, and pronunciation before study at the 200 level. QA: SPN 190

Second Year Spanish I

Fall, Spring. 4(4-0) P: SPN 102 or SPN 150 or R: designated score on Spanish placement test.
Intermediate-level review and development of aural

comprehension, speaking, reading, and writing skills. Topics in the cultures of the Spanish-speaking world. QP: SPN 103, SPN 190 QA: SPN 201, SPN 202

202. Second-Year Spanish II

Fall, Spring. 4(4-0)

P: SPN 201.

Further review and development of aural comprehension, speaking, reading, and writing skills. Topics in the cultures of the Spanish-speaking world. QP: SPN 202 QA: SPN 202, SPN 203

Independent Study

Fall, Spring. 1 to 4 credits. A student may earn a maximum of 4 credits in all enrollments for

R: Approval of department.

Special projects arranged by an individual student and a faculty member in areas supplementing regular course offerings.

Grammar and Composition 320. Fall, Spring. 3(3-0)

P: SPN 202.

Systematic study of Spanish grammar and composition. Extensive writing in Spanish. QP: SPN 203 QA: SPN 321, SPN 322

330. Phonetics and Oral Spanish

Fall, Spring. 3(3-0)

P. SPN 320.

Phonetic description of the sound system of Spanish, developed linguistically and applied to the improvement of pronunciation and spoken Spanish. QP: SPN 203 QA: SPN 300

Spanish Culture

Fall. 3(3-0)

P. SPN 320.

Aspects of political, social, economic, intellectual, artistic, and literary life of Spain from its origins to the present. Readings, film, and musical selections used as sources for discussion in Spanish. QP: SPN 203, SPN 322 QA: SPN 327

345. Spanish American Culture

Spring. 3(3-0)

P. SPN 320.

Aspects of political, social, economic, intellectual, artistic, and literary life of Spanish America. Readings, films, and musical selections used as sources for class discussion in Spanish. QP: SPN 203, SPN 322 QA: SPN 328

346. Hispanic Cultures in the United States

Spring of odd-numbered years. 3(3-0) R. Not open to freshmen.

History and culture of the varied Hispanic groups in the United States. Migrant and bilingual education. Border and Caribbean cultures. Literary and artistic expression. QA: SPN 326

Introduction to Reading Hispanic 350. Literature

Fall, Spring. 3(3-0)

P: SPN 320. Close reading of poetry, drama, and prose. QP: SPN 203 QA: SPN 361

Hispanic Literatures in English Translation

Spring. 3(3-0)

R. Not open to freshmen. Selected representative works or themes of the literatures of Spain or Spanish America.

Survey of Spanish Literature I

Fall of even-numbered years. 3(3-0)

P: SPN 350; SPN 340 or SPN 345. Major periods, trends, and authors from the origins through the literature of the Golden Age. QP: SPN 361, SPN 322 QA: SPN 362

Survey of Spanish Literature II

Spring of even-numbered years. 3(3-0) P: SPN 350; SPN 340 or SPN 345.

Major periods, trends, and authors from the Spanish Enlightenment to the post-Franco era. QP: SPN 361, SPN 322 QA: SPN 363

415. Survey of Spanish American Literature I

Fall of odd-numbered years. 3(3-0) P: SPN 350; SPN 340 or SPN 345. Survey of literature from the conquest through the nineteenth century. QP: SPN 361, SPN 322 QA: SPN 364

416. Survey of Spanish American Literature II Spring of odd-numbered years. 3(3-0) P: SPN 350; SPN 340 or SPN 345. Survey of literature of the twentieth century. QP: SPN 361, SPN 322 QA: SPN 365

Linguistic Grammar

Fall. 3(3-0)
P. SPN 320; LIN 401 or ROM 401.
Linguistic justification and investigation of major grammar rules of Spanish. Extraction of generaliza-tions from contextualized spoken and written Spanish. QP: SPN 322, LIN 401 QA: SPN 422, SPN 423

Topies in Hispanic Linguistics

Spring. 3(3-0) P: SPN 320; LIN 401 or ROM 401.

Topics include phonology, contrastive structures, and QP: SPN 322, LIN 401 QA: SPN 420, SPN 421

450. Spanish Literature of the Middle Ages

Fall of even-numbered years. 3(3-0) P: SPN 410, SPN 411; or SPN 415, SPN 416. Major currents of the Middle Ages as reflected in the writings of representative authors of the period. QP: SPN 361 or SPN 363 or SPN 365 QA: SPN

455. Cervantes

Spring of even-numbered years. 3(3-0) P: SPN 410, SPN 411; or SPN 415, SPN 416. Don Quijote, representative novelas ejemplares, draдол долож, representative novelas ejemplares, d ma and poetry. QP: SPN 361 or SPN 363 or SPN 365 QA: SPN 455

460.

Spanish Golden Age Literature Fall of odd-numbered years. 3(3-0)
P: SPN 410, SPN 411; or SPN 415, SPN 416.
Theatre, prose, and poetry of the Golden Age, excluding Don Quijote. Renaissance and Baroque ideologies

and their genres. QP: SPN 361 or SPN 363 or SPN 365 QA: SPN

465. 19th Century Spanish Literature

Spring of odd-numbered years. 3(3-0) P: SPN 410, SPN 411; or SPN 415, SPN 416. Principal literary movements of nineteenth-century Spain through representative major works in all genres, and pertinent secondary sources. QP: SPN 361 or SPN 363 or SPN 365 QA: SPN

470. 20th Century Spanish Literature

Fall of even-numbered years. 3(3-0) P: SPN 410, SPN 411; or SPN 415, SPN 416. Principal literary movements of Spain through major works, generations, and authors.

QP: SPN 361 or SPN 363 or SPN 365 QA: SPN

Spanish American Literature through the 19th Century 475.

Spring of even-numbered years. 3(3-0) P: SPN 410, SPN 411; or SPN 415, SPN 416. Development of Spanish American literature from its origins through the nineteenth Century. QP: SPN 361 or SPN 363 or SPN 365 QA: SPN

Spanish American Literature of the 20th Century

Fall of odd-numbered years. 3(3-0)
P: SPN 410, SPN 411; or SPN 415, SPN 416.
Major works of poetry, theatre, prose fiction, and

QP: SPN 361 or SPN 363 or SPN 365 QA: SPN 480

Topics in Hispanic Literatures of the Americas

Americas
Spring of odd-numbered years. 3(3-0)
P: SPN 410, SPN 411; or SPN 415, SPN 416.
A national literature or regional literature: Hispanic Caribbean, Mexico and Central America, Andean Countries, River Plate area, or Latino literature in the United States. QP: SPN 363 or SPN 365 QA: SPN 485

490. Independent Study

Fall, Spring. I to 4 credits. A student may earn a maximum of 4 credits in all enrollments for this course.

R: Approval of department.

Special project arranged by an individual student and faculty member in an area supplementing regular course offerings. QA: SPN 499

491. Special Topics in Spanish Fall, Spring. 3(3-0) R: Approval of department.

Special topics supplementing regular course offerings, proposed by faculty on a group study basis.

Current Approaches to Spanish Instruction Fall. 3(3-0)

Theoretical and applied study of methodologies of teaching Spanish. QA: SPN 800

805. Evolution of the Spanish Language Spring of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Phonology, morphology and syntax of Spanish from its origins to the present. QA: SPN 805

806. Topics in Hispanic Linguistics

Spring of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Issues in Spanish language treated in light of current linguistic inquiry. Topics vary. QA: SPN 806

Topics in Hispanic Culture

Spring of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course. Topics such as the Enlightenment, Post-Francoist

film, and pre-Columbian cultures. QA: SPN 809

810. Studies in Medieval Spanish

Spring of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Works, genres, and writers of the Spanish Middle Ages. Topics vary. QA: SPN 802

815. Studies in Golden Age Literature

Fall of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Poetry, drama, and prose of 16th and 17th century Spain. Topics vary.

QA: SPN 811

820. Cervantes

Fall of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Critical study of "Don Quijote," "Novelas Ejemplares," or other works. QA: SPN 812

825. Studies in 18th and 19th Century Spanish Literature

Spring of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Literature from post-Baroque Spain to the Generation of 1898. Topics vary. QA: SPN 831

830. Studies in 20th-Century Spanish Literature

Fall of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Authors, generations, and tendencies that shape the directions of Spanish literature in the 20th Century. Topics vary. QA: SPN 842

835. Spanish-American Literature before Modernismo

Spring of odd-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all enrollments for this course.

Major authors and movements from the colonial period to Modernismo. Topics vary. QA: SPN 850

Contemporary Spanish-American 840. Literature

Fall of even-numbered years. 3(3-0) A student may earn a maximum of 9 credits in all

enrollments for this course. Poetry, drama, prose, fiction, and essay from Modernismo to the present. Topics vary. QA: SPN 852

890. Independent Study

Fall, Spring, Summer. 1 to 3 credits. A student may earn a maximum of 9 credits in all enrollments for this course.

R: Approval of department.

Special projects, directed reading, and research arranged by an individual graduate student and a faculty member in areas supplementing regular course offerings. QA: SPN 860

891. Special Topics in Spanish Fall, Spring, Summer. 3(3-0) A student may earn a maximum of 6 credits in all enrollments for this course.

R: Approval of department.

Special topics supplementing regular course offerings proposed by faculty on a group study basis for gradu-

Doctoral Dissertation Research

Fall, Spring, Summer. 1 to 24 credits. A student may earn a maximum of 24 credits in all enrollments for this course. R: Approval of department.

QA: SPN 999

STATISTICS AND PROBABILITY

STT

Department of Statistics and Probability College of Natural Science

200. Statistical Methods

Fall, Spring, Summer. 3(4-0)

P: MTH 103 or designated score on mathematics placement test. R: Not open to students with credit in STT 201 or STT 315 or STT 421.

Descriptive statistics, elementary probability and combinatories. The binomial distribution. Random variables, their expectations and variances. Central Limit Theorem, estimation and inference. Simple tests based on the binomial, normal, t, chi-square and F distributions.

QP: MTH 108 QA: STT 201

Statistical Methods

Fall, Spring, Summer. 4(3-2)
P: MTH 103 or designated score on mathematics
placement test. R: Not open to students with credit
in STT 200 or STT 315 or STT 421.

Probability and statistics with computer applications. Data analysis, probability models, random variables, tests of hypotheses, confidence intervals, simple linear

regression. QP: MTH 108

Introduction to Probability and Statistics for Business

Fall, Spring, Summer. 3(4-0) P: MTH 120 or MTH 124 or MTH 132. R: Not open to students with credit in STT 200 or STT 201 or STT

Probability and statistics for business majors. Data analysis, probability models, random variables, single population confidence intervals and tests of hypotheses with business applications.

QP: MTH 111 QA: STT 315

Statistics for Scientists

Fall, Spring. 3(3-0)
P: MTH 120 or MTH 124 or MTH 132 or LBS 101. R: Open only to students in College of Natural Science. Calculus based course in probability and statistics. Probability models, random variables, tests of hypotheses, confidence intervals with applications in science

es. QP: LBS 113 or MTH 113

35 I. Probability and Statistics for Engineers

Fall, Spring, Summer. 3(3-0) P: MTH 234. R: Not open to students with credit in STT 430.

A calculus based course in probability and statistics for engineering students. Probability models, random variables, tests of hypotheses, and confidence intervals with engineering applications. QA: STT 35Ì

Statistics I

Fall, Spring, Summer. 3(3-0)
P: MTH 103 or MTH 110 or MTH 116. R: Not open
to students with credit in STT 200 or STT 201 or STT

Basic probability, random variables, and common distributions. Estimation and tests for one-, two-, and paired sample problems. Introduction to simple linear regression and correlation, 1-way ANOVA. QP: MTH 108 QA: STT 421, STT 422

422 Statistics II

Fall, Spring, Summer. 3(3-0)
P: STT 421. R: Not open to students with credit in

Goodness of fit and other non-parametric methods. Linear models including multiple regression and ANOVA for simple experimental designs. QP: STT 421 QA: STT 422, STT 423

Introduction to Probability and Statistics

Fall. 3(3-0)

P: MTH 126 or MTH 133. R: Open only to Economics and Agricultural Economics majors. Not open to students with credit in STT 351. Calculus based probability and statistics with applica-

tions. Discrete and continuous random variables and their expectations. Point and interval estimation, tests of hypotheses, simple linear regression. QP: MTH 113 or MTH 123 or MTH 480

Probability and Statistics I: Probability

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

P: MTH 235 or concurrently.

Discrete and continuous distributions: univariate and multivariate. Normal approximation, sampling distri-butions and parameter estimation. Poisson process and applications.

QP: MTH 215 QA: STT 441, STT 442

Probability and Statistics II: 442. Statistics

Fall, Spring. 3(3-0) P: STT 441, MTH 314.

Estimation, tests of hypotheses, confidence intervals. Goodness of fit, non-parametric methods. Linear models, multiple regression, ANOVA. QP: STT 441 QA: STT 442, STT 443

Computations in Probability and Statistics 461.

Spring. 3(3-0) P: CPS 131 or CPS 230; MTH 314, STT 441. Computer algorithms for evaluation, simulation and visualization. Sampling and prescribed distributions. Robustness and error analysis of procedures used by statistical packages. Graphics for data display, computation of probabilities and percentiles QP: STT 441, MTH 334 QA: STT 461

Statistical Methods for Biologists I

Fall. 3(3-0) Interdepartmental with Animal Science, and Crop and Soil Sciences.

P: STT 421.

Biological random variables, estimation of population parameters, and testing hypotheses. Linear correlation and regression (prediction). Contingency tables and analysis of variance for comparison of biological

groups. QP: STT 421 QA: STT 422

465. Statistical Methods for Biologists II
Spring. 3(3-0) Interdepartmental with
Animal Science, and Crop and Soil Sciences.

P: STT 464.

Concepts of reducing experimental error: covariance, complete and incomplete block designs, latin squares, split plots, repeated-measures designs, regression applications, and response surface designs. QP: STT 422 QA: ANS 871, CSS 920