ISE 308 Software Engineering
Introduces the basic concepts and modern tools and techniques of software engineering. Emphasizes the development of reliable and maintainable software via system requirements and specifications, software design methodologies including object-oriented design, implementation, integration, and testing; software project management; life-cycle documentation; software maintenance; and consideration of human factor issues. This course is offered as both CSE 308 and ISE 308.
Prerequisite: CSE 219
3 credits

ISE 310 Data Communication and Networks
Study of communication networks. Local area networks (LAN), integrated voice and data systems (IVDS), and wide area networks (WAN). Their topologies: bus, token passing, tree, point to point. Protocols, speed, and distance limitations: RS232, TCP/IP, MAP/TOP, ONS, OSI. Network design and management will be studied in various environments. May not be taken by students with credit for CSE/ISE 346. This course is offered as both CSE 310 and ISE 310.
Prerequisites: CSE 219 and 220
3 credits

ISE 315 Database Transaction Processing Systems
Theory and practice of design for applications involving transactional access to a database. Transaction design, schema design, restart and recovery, journaling, concurrency control, distributed databases. Student groups perform design and implementation of significant database application. This course is offered as both CSE 315 and ISE 315.
Prerequisite: CSE/ISE 305
3 credits

ISE 332 Introduction to Scientific Visualization
Visualization of scientific, engineering, medical, and business data sets. Mechanisms to acquire sampled, computed, or synthetic data and methods to transform symbolic into the visual. Topics include classic visualization process; visual perception; volume and surface visualization; methods for visualizing sampled, simulated, and geometric objects; and visualization systems. Emphasis on applications and case studies. This course is offered as both CSE 332 and ISE 332.
Prerequisite: CSE 219, MAT 211 or AMS 210
3 credits

ISE 333 User Interface Development
Survey of user interface systems, including topics such as command language, windowing, multiple input/output devices, architecture of user interface management systems, and tool kits for designing user interfaces. Additional topics may include human factors, standards, or visual languages. Students participate in a project involving the design and implementation of a user interface system. This course is offered as both CSE 333 and ISE 333.
Prerequisite: CSE 219
Advisory prerequisite: FSY 103
3 credits

ISE 334 Introduction to Multimedia Systems
Survey of technologies available for user interfaces. Discussion of hypertext; voice, music, and video together with tools and models for capturing, editing, presenting, and combining them. Capabilities and limitations of a range of peripheral devices including devices based on posture, gesture, head movement, and touch. Case studies of academic and commercial multimedia systems including virtual reality systems. Students participate in laboratory exercises and build a multimedia project. This course is offered as both CSE 334 and ISE 334.
Prerequisites: CSE or ISE major; U3 or U4 standing
3 credits

ISE 336 Internet Programming
Introduces the design and development of software for Internet commerce. Topics include extended markup language (XML), serveral languages, servlets, cookies, sessions, Internet security, hypermedia types, Web protocols, digital signatures, certificates, encryption, and the wireless Internet. This course is offered as both CSE 336 and ISE 336.
Prerequisite: CSE 219
3 credits

ISE 364 Advanced Multimedia Techniques
Digital media production techniques for high-bandwidth applications such as electronic magazine illustration, broadcast television, and motion picture special effects. Students explore techniques such as 3D modeling and character animation, video compositing, and high-resolution image processing in a state-of-the-art multimedia computing laboratory. High-capacity multimedia storage, high-speed networks, and new technologies such as DVD, HDTV, and broadband will be reviewed. This course is offered as both CSE 364 and ISE 364.
Prerequisites: CSE/ISE 334 and permission of the instructor
3 credits

ISE 390, 391 Special Topics in Information Systems
Lecture or seminar course on a current topic in information systems. Semesters supplements to this Bulletin contain specific description when course is offered. May be repeated for credit as the topic changes, but cannot be used more than twice to satisfy ISE major requirements.
Prerequisites: ISE or CSE major; U3 or U4 standing
3 credits per course

ISE 475 Undergraduate Teaching Practicum
Students assist faculty by conducting a recitation or laboratory section that supplements a lecture course. The student receives regularly scheduled supervision from the faculty advisor. May be used as an open elective only and repeated once.
Prerequisites: U4 standing as an undergraduate CEAS major; a minimum g.p.a. of 3.00 in all Stony Brook courses; grade of B or better in the course in which the student is to assist; or permission of department
3 credits

ISE 487 Research in Information Systems
An independent research project with faculty supervision. Only three credits of research electives (AMS 487, BME 499, CSE 487, ESE 499, ESM 499, EST 499, ISE 487, MEC 499) may be counted toward technical elective requirements. May not be taken for more than six credits.
Prerequisites: Permission of instructor and department
0-6 credits

ISE 488 Information Systems Internship
Participation in local, state, national, or international private enterprises, public agencies, or nonprofit institutions. Students are required to submit a written proposal, progress reports, and a final report on their experience to the client and to the department. May be repeated up to a limit of 12 credits but only three credits of CSE or ISE 488 may be used as an elective to satisfy ISE major requirements.
Prerequisites: ISE major; U3 or U4 standing; permission of faculty sponsor and department
3 credits, S/U grading

ISE 101 Intensive Elementary Italian
An intensive course covering the elementary Italian program (ITL 111, 112) in one semester. ITL 101 is designed for students who have no prior knowledge of the language. A student who has had two or more years of Italian in high school (or who has otherwise acquired an equivalent proficiency) may not take ITL 111 without written permission from the supervisor of the course. May not be taken for credit in addition to ITL 111.
Prerequisite to ITL 112: ITL 111
3 credits per course

ITL 201 Intensive Intermediate Italian
An intensive course covering the intermediate Italian program (ITL 211, 212) in one semester. May not be taken for credit in addition to ITL 211, 212.
Prerequisite: ITL 101 or 112
6 credits

ITL 211, 212 Intermediate Italian I, II
Intermediate courses in the reading and discussion of selected Italian texts. Completion of grammatical and syntactic points not covered in Elementary Italian. Extensive practice in conversational ability. May not be taken for credit in addition to ITL 201.
Prerequisite to ITL 211: ITL 101 or 112
Prerequisite to ITL 212: ITL 211
3 credits per course

ITL 311 Italian Conversation and Composition
A course in spoken and written Italian, with emphasis on precision and fluency in the spoken form.
Prerequisite: ITL 201 or 212
3 credits

ITL 312 Italian Conversation and Composition
Reading of selected short passages of prose and poetry in class, with emphasis on improved writing skills, oral expression, and increased mastery of Italian syntax and techniques of literary analysis.
Prerequisite: ITL 201 or 212
3 credits

ITL 313 Italian Vocabulary
A course designed to increase the vocabulary and oral comprehension of students of Italian through media such as television commercials, popular music, folk songs, etc. The particular theme changes each semester. May be repeated twice for credit as the topic changes.
Prerequisite: ITL 201 or 212
1 credit
ITL 395-G Readings in Italian Literature I
Literary analysis and its application to representative short stories and novels chosen from the various periods of Italian literature. Readings, writings, and discussions are in Italian.
Prerequisite: ITL 311
Pre- or Corequisite: ITL 312
3 credits

ITL 396-G Readings in Italian Literature II
Literary analysis and its application to representative plays and poems chosen from the various periods of Italian literature. Readings, writings, and discussions are in Italian.
Prerequisite: ITL 311
Pre- or Corequisite: ITL 312
3 credits

ITL 410 Business Italian
A course designed for students who wish to become more proficient in reading, writing, and translating Italian. Students are also trained in the use of Italian in business, in administration, and in everyday professional life. Emphasis is placed on the idiomatic peculiarities of the Italian language and the relation of Italian to the structure of English.
Prerequisites: ITL 311 and 312
3 credits

ITL 411 Advanced Conversation and Composition
A course designed to develop fluency and accuracy in the use of the spoken language through intensive practice, exposition, class discussion, and the use of the language laboratory.
Prerequisites: ITL 311 and 312
3 credits

ITL 412 Advanced Conversation and Syntax
A course designed to acquaint students with the subtleties of Italian grammar and style. Extensive practice in composition and in translation from English to Italian.
Prerequisites: ITL 311 and 312
3 credits

ITL 424 History of the Italian Language
A study of the history of the Italian language from Latin to its present form.
Prerequisites: ITL 311 and 312
3 credits

ITL 425 Italian and Its Dialects
An examination of the Italian dialects within the larger framework of Romance language development, particularly through primary texts (medieval to modern) in various Italian dialects.
Prerequisites: ITL 311 and 312
3 credits

ITL 426 Italian Linguistics
An examination of the linguistic evolution and the synchronous structures (phonology, morphology, and syntax) of standard Italian and some Italo-Romance dialects.
Prerequisites: ITL 311 and 312
3 credits

ITL 430 Studies in 13th- and 14th-Century Literature
Semester Supplements to this Bulletin contain description when course is offered. May be repeated as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 431 Studies in 13th- and 14th-Century Literature
Semester Supplements to this Bulletin contain description when course is offered. May be repeated as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 432 Studies in 15th- and 16th-Century Literature
Semester Supplements to this Bulletin contain description when course is offered. May be repeated as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 433 Studies in 17th- and 18th-Century Literature
Semester Supplements to this Bulletin contain description when course is offered. May be repeated as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 434 Studies in 19th-Century Literature
Semester supplements to this Bulletin contain specific description when course is offered. May be repeated for credit as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 435 Studies in Contemporary Literature
Semester Supplements to this Bulletin contain description when course is offered. May be repeated as the topic changes.
Prerequisites: ITL 311, 312, 395, and 396
3 credits

ITL 439 Italian Scene
The reality of Italy and the Italian people through a study of the evolution of the historical, cultural, political, and social character of the nation.
Prerequisites: ITL 311 and 312
3 credits

ITL 440-1 The Italian Scène
The reality of Italy and the Italian people through a study of the evolution of the historical, cultural, political, and social character of the nation.
Prerequisites: ITL 311 and 312
3 credits

ITL 441 Free Seminar
A seminar built around a theme such as “Cities in Italian Literature,” “Women in Italian Literature,” “Death and Resurrection in Contemporary Italian Literature,” or “Sin and Sensuality in the Italian Short Story.” A detailed description of the seminar may be obtained from the department for each semester it is offered. May be repeated as the topic changes.
Prerequisites: ITL 311 and 312
3 credits

ITL 444 Directed Readings in Italian
Individually supervised readings in selected topics in Italian language and literature or, alternatively, for the purpose of developing Italian vocabulary in a secondary field, in selected topics in the humanities, social sciences, or natural sciences. May be repeated.
Prerequisite: Permission of instructor
1-6 credits

ITL 447 Internship
Participation in local, state, national, and international public and private agencies and organizations to apply and reinforce language skills and knowledge of social and cultural institutions.
Prerequisites: ITL 410; permission of instructor and department
0-4 credits, S/U grading

ITL 488 Senior Honors Project in Italian
A one-semester project for seniors. Arranged in consultation with the department, the project involves writing a paper, under the close supervision of an appropriate instructor, on a suitable topic. Students who are candidates for honors take this course.
Prerequisite: Permission of department
3 credits

ITS Information and Technology Studies

ITS 101 Introduction to Stony Brook
A course intended to integrate students into the Undergraduate College of Information and Technology Studies and into the University community by providing information about Stony Brook and a forum for discussion of values, intellectual and social development, and personal as well as institutional expectations. Not for credit in addition to ACH 101, IDS 101, GLS 101, HDV 101, SSO 101, SBU 101, LHD 101, and LSE 101.
1 credit, ABC/U grading

ITS 102 Topics in Information and Technology Studies
A required introductory seminar for students in the College of Information and Technology Studies. Various topics within the scope of information, technology, and engineering studies.
Prerequisite: Admission to the ITS Undergraduate College
1 credit, ABC/U grading

JDH Judaic Studies in Humanities

JDH 230-G Judaism
A survey of the great texts of the Judaic heritage, with the aim of learning the contribution of each to the Jewish tradition. The course includes an examination of characteristic Jewish beliefs, practices, and attitudes. This course is offered as both JDH 230 and RLS 230.
3 credits

JDH 261-B The Bible as Literature
A literary approach to the Bible that explores the characteristic principles of the Bible’s narrative and