CHIN 3160 Chinese for International Trade 1 3(3)
Study of spoken and written Chinese common to the Chinese-speaking business communities emphasizing business practices and writing/ translating business letters and professional documents. Cross-cultural references are provided for comparative analyses of American and Chinese business behavior. Classes are conducted in Chinese. Preq or concurrent enrollment: CHIN 3020 and CHIN 3050.

CHIN 3170 Chinese for Health Professionals I 3(3)

CHIN 3970 Creative Inquiry—Chinese 1-4(1-4)
Students focus on a special research area under the guidance of a faculty member. After acquiring the requisite background, students formulate hypotheses for a group project, develop a critical framework, and initiate research on a specific topic. CHIN 3980 Directed Reading 3(3) Directed readings in Chinese literature, language, society, and culture. Taught in Chinese. May be repeated for a maximum of six credits. Preq: Consent of department chair.

CHIN 4010 PreModern Chinese Literature in Translation 3(3) Chinese literature from 8th century B.C.E. to 19th century C.E.; including poetry, prose, drama, fiction, and literary criticism. All readings and discussions are in English. CHIN 4110 Studies in the Chinese Language I: Literature 3(3) Advanced training in the spoken and written language through readings in contemporary literature emphasizing vocabulary, syntax, and stylistics. All readings and discussions are in Chinese. Preq: CHIN 3060.

CHIN 4120 Studies in the Chinese Language II: Social Issues 3(3) In-depth study of terminology and syntax for specific subject areas in contemporary social issues. All readings and discussions are in Chinese. Preq: CHIN 3060.

CHIN 4360 Chinese for International Trade II 3(3) Study of language, concepts, and the environment of Chinese-speaking markets of the world. Considers sociocultural, political, and economic issues relevant to the Chinese-speaking business world and the ramifications of these issues in global marketing. Classes are conducted in Chinese. Preq: CHIN 3160.

CHIN 4700 Creative Inquiry—Chinese 1-4(1-4)
Continuation of research initiated in CHIN 3970. Students complete their projects and disseminate their research results. Preq: CHIN 3970.

CHIN 4980 Independent Study 1-3(1-3) Supervised study and research on selected topics in Chinese studies. May be repeated for a maximum of six credits. Preq: Junior standing and consent of department chair.

CHIN 4990 Selected Topics in Chinese Culture 3(3) Examination of various social and cultural topics, including art and literature, philosophical and religious traditions, health and healing, and folk and popular cultures. May be repeated for a maximum of six credits, but only if different topics are covered. Readings and discussions are in English. May not be used to satisfy general modern language requirements.

COMM 1010 Communication Academic and Professional Development I 1(1) Introduces students to General Education and Communication Studies major requirements, explains connections between general education and major courses, explores careers in communication, and prepares students to develop digital portfolios, résumés, and interview skills specific to communication professions and/or graduate school. To be taken Pass/No Pass only.

COMM 1070 Media Representations of Science and Technology 3(3) Examines mediated representations of science and technology from a communication perspective. Attention is paid to portrayals/coverage of science and technology in popular film, television, Internet, journalism, and other media. Students examine an array of theoretical issues and case studies in this area.

COMM 1500 Introduction to Human Communication 3(2) Overview of theoretical approaches to the study of communication, including the theory and practice of interpersonal/small group/intercultural/public communication. Includes a laboratory. Coreq: COMM 1501.

COMM 1501 Introduction to Human Communication Laboratory 0(2) Non-credit laboratory to accompany COMM 1500. Coreq: COMM 1500.

COMM 1620 Forensic Laboratory I 1(3) Research, preparation, and practice leading to participation in on-campus and intercollegiate debate and individual events competition. May be repeated for a maximum of four credits.

COMM 1630 Advanced Forensic Laboratory I 1(3) Advanced research, preparation, and practice leading to continued participation in on-campus and intercollegiate debate and individual events competition. May be repeated for a maximum of four credits. Preq: COMM 1620.

COMM 1800 Introduction to Cross-Cultural Communication 3(3) Introductory course designed to provide an overview to intercultural communication questions stemming from the growing diversity and interconnectedness of the world. Students are challenged to learn about the ways people from different cultural backgrounds think, communicate and behave based on the value systems and worldviews that ground them.

COMM 2010 Introduction to Communication Studies 4(3) Introduces Communication Studies majors to and prepares them for continued study in the discipline by providing them with an overview of important issues, areas of study, and approaches to the field. Includes a writing laboratory experience. Preq: COMM 1010. Coreq: COMM 2011.

COMM 2501 Public Speaking Laboratory 0(1) Non-credit laboratory to accompany COMM 2500. Coreq: COMM 2500.

COMM 2502 Public Speaking Laboratory 0(1) Non-credit laboratory to accompany COMM 2502. Coreq: COMM 2502.

COMM 2510 Communication Theory 3(3) Students explore the breadth and depth of theories within the major frameworks of the communication studies discipline. Preq: COMM 2010 with a C or better.

COMM 3020 Mass Communication Theory 3(3) Survey of the breadth and history of theories of mass communication and mass media from the 19th century to the present. Emphasizes contemporary schools of thought, theoretical debates, and the continuing controversies in the field. Preq: COMM 2010 with a C or better.

COMM 3030 Communication Law and Ethics 3(3) Major topics in communication law and free expression and in communication ethics. Preq: COMM 2500 with a C or better.

COMM 3050 Persuasion 3(3) Study of the processes by which communication influences attitudes, beliefs, and behaviors in our personal, social, civic, and professional lives. After discussion of definitional and methodological issues, particular theories of persuasion are examined. Treatment of political, market-driven, and social persuasion concludes the course. Preq: COMM 2010 with a C or better.

COMM 3060 Critical-Cultural Research Methods in Communication Studies 3(3) Explores methods of critical-cultural communication inquiry, including research relationships, conducting studies, and integrating multiple methods. Methods may include discourse analysis, historiography, and participant observation. Preq: COMM 2010 with a C or better.
COMM 3070 Public Communication of Science and Technology 3(3) Examines the role of science and technology in society from a communication perspective. Particular attention is paid to this dynamic in public culture. Students examine an array of theoretical issues and case studies in this area. Preq: COMM 2010 with a C or better.

COMM 3080 Public Communication and Popular Culture 3(3) Examines artifacts of popular culture, paying particular attention to their relationship to politics and public life. Explores the structures and constraints of the culture industry. Students apply communication principles to various examples. Preq: COMM 2010 with a C or better.

COMM 3090 Visual Discourse and the Public 3(3) Examines the role of visuality in society and the cultural implications for ways of seeing. Using visual artifacts of various types, students learn the logic of visual representation. Preq: COMM 2010 with a C or better.

COMM 3100 Quantitative Research Methods in Communication Studies 3(3) Explores methods of quantitative communication inquiry, including theory/research relationship, conducting studies, and utilizing statistical software. Methods may include experiments, surveys, and content analysis. Preq: COMM 2010 with a C or better.

COMM 3110 Qualitative Research Methods in Communication Studies 3(3) Explores methods of qualitative communication inquiry, including theory/research relationship and conducting studies. Methods may include interviewing, focus groups, textual analysis, and ethnography. Preq: COMM 2010 with a C or better.

COMM 3150 Critical-Cultural Communication Theory 3(3) Examines the breadth and history of critical-cultural theories of society, communication, media and power in the 19th century to the present. Emphasizes contemporary schools of thought, theoretical debates, and the continuing controversies in the field. Preq: COMM 2010 with a C or better.

COMM (WS) 3160 Girlhood, Media, and Popular Culture 3(3) Explores how the mass media and popular culture contribute to social constructions of girlhood. Employing the critical lens of feminist and communication theories, students examine mediated depictions of girls as well as how girls actively produce and negotiate media and popular culture. May also be offered as WS 3160. Preq: COMM 2010 with a C or better or WS 3100.

COMM 3200 Broadcast Production 3(2) Explores the broadcast side of journalism. Students produce broadcast video packages, as well as newscasts. Students learn news writing, filming and video editing. Coreq: COMM 3201.

COMM 3201 Broadcast Production Laboratory 0(2) Non-credit laboratory to accompany COMM 3200. Coreq: COMM 3200.

COMM 3210 Communication Across Media Platforms 3(3) Provides an overview of the communication convergence strategies and practices used across multiple media platforms, including print, broadcast, Internet and social media. Emphasis is placed on media law, ethics and communication practices used across multiple media platforms. Preq: COMM 2010 with a C or better.

COMM 3220 Communication Design 3(2) Provides an overview of the communication theories, tools and techniques available to design, manipulate and convey technological messages and experiences in digital contexts. Provides knowledge and critical skills necessary to consider communication design as an important and inevitable component of communication studies careers.

COMM 3221 Communication Design Laboratory 0(2) Non-credit laboratory to accompany COMM 3220.

COMM 3240 Communication, Sport and Society 3(3) Covers the cultural influence of communication about sports on society. Explores how communication enables cultural meanings and values to become associated and established within sports. Exposes students to the ways factors such as race, gender and nationalism manifest and perpetuate via communication about sports. Preq: COMM 2010 with a C or better.

COMM 3250 Survey of Sports Communication 3(3) Covers fundamentals of communicating in a sports environment. Includes the basics of communicating for print and broadcast news, as well as communicating for sports information. Also covers ethical considerations in sports communications. Preq: COMM 2010 with a C or better.

COMM 3260 Public Relations in Sports 3(3) Focuses on the preparation of professional sports communication materials for both internal and external audiences. Topics include the mechanics of creating press releases and other materials, as well as techniques in managing crises. Preq: COMM 2010 with a C or better.

COMM 3270 Sports Media Criticism 3(3) Students gain in-depth understanding of sports communications through critical analysis of actual material. Coverage of sporting events, addressing social issues involved in college and professional sports, and developing an understanding of sports promotion and advertising. Preq: COMM 2010 with a C or better.

COMM 3280 Political Communication 3(3) Examines the role of the advocate in contemporary society with an emphasis on developing skills in argumentation and debate. The role of the advocate in contemporary society with an emphasis on and an appreciation of formal debate. Preq: COMM 2500.

COMM 3290 Communication and Conflict Management 3(3) Explores the study of communication practices in conflict situations within various personal and professional settings. Emphasis is on the cultural role of communication in the understanding and management of conflict. Preq: COMM 2010 with a C or better.

COMM 3340 Organizational Communication 3(3) Examines the process, theories, and techniques of communications within small groups and other organized bodies. Preq: COMM 2010 with a C or better.

COMM 3360 Special Topics in Communication Studies 3(3) Examines selected major areas of practice in the field with a focus on application of communication concepts. May be repeated for a maximum of nine credits, but only if different topics are covered.

COMM 3380 Applied Communication 3(3) Students apply and develop practical knowledge and skills relevant to specific research areas in communication studies as determined by instructor. Areas may include organizational, health, media and technological communication. Preq: COMM 2010 with a C or better; and COMM 3060 or 3100, each with a C or better.

COMM 3390 Political Communication 3(3) Explores the study of politics, public opinion, and political persuasion with emphasis on the role of the advocate in contemporary society. Preq: COMM 2010 with a C or better.

COMM 3480 Interpersonal Communication 3(3) Surveys the theories and research in interpersonal communication with emphasis on the application of research findings and developmental strategies for intra- and intercultural relationships. Preq: COMM 2010 with a C or better.

COMM 3500 Small Group and Team Communication 3(3) Examines the principles and skills involved in effective small-group communication. Preq: COMM 2010 with a C or better.

COMM 3550 Principles of Public Relations 3(3) Students learn the principles, theories, process, history and contexts of public relations. Preq: COMM 2010 with a C or better.

COMM 3560 Crisis Communication 3(3) Examines communication processes that harm or help people's experiences of risks and crises. Students are exposed to dominant crisis communication theories and models. Preq: COMM 3550.

COMM 3610 Argumentation and Debate 3(3) Basic principles of argumentation with emphasis on developing skills in argumentative speech. The role of the advocate in contemporary society with an emphasis on and an appreciation of formal debate. Preq: COMM 2500.

COMM 3620 Communication and Conflict Management 3(3) Explores the study of communication practices in conflict situations within various personal and professional settings. Emphasis is on the cultural role of communication in the understanding and management of conflict. Preq: COMM 2010 with a C or better.

COMM 3640 Organizational Communication 3(3) Examines the process, theories, and techniques of communications within small groups and other organized bodies. Preq: COMM 2010 with a C or better.

COMM 3660 Special Topics in Communication Studies 3(3) Examines selected major areas of practice in the field with a focus on application of communication concepts. May be repeated for a maximum of nine credits, but only if different topics are covered.

COMM 3680 Applied Communication 3(3) Students apply and develop practical knowledge and skills relevant to specific research areas in communication studies as determined by instructor. Areas may include organizational, health, media and technological communication. Preq: COMM 2010 with a C or better; and COMM 3060 or 3100, each with a C or better.

COMM 3690 Political Communication 3(3) Explores the study of politics, public opinion, and political persuasion with emphasis on the role of the advocate in contemporary society. Preq: COMM 2010 with a C or better.

COMM 3700 Survey of Brand Communications 3(3) Provides a historical perspective on the brand communications industry, introduces the concepts of the industry ecosystem and the players therein, and provides an overview of disciplines and the roles they play in the development of brand communications. Preq: Sophomore standing.

COMM 3710 Brand Creation and Communication 3(3) Examines the role of communication in brand creation and the processes involved in the development of a brand. Students evaluate popular brands to understand their influence on consumers and the industry. Preq: COMM 3700.

COMM 3720 Digital Analytics in Brand Communications 3(3) Explores interactive technology, digital content, social media strategy, digital project management, digital outlets, and website technology in relation to brand communications and digital analytics. Preq: COMM 3700.

COMM 3730 Media Management in Brand Communications 3(3) Explores theory, strategy and practice of media management in all channels of paid media, as well as the integration of paid media with other components of brand communications. Preq: COMM 3700.
COMM 3740 Brand Communications and Media Strategy 3(3) Examines the creation of strategies that guide the development of content and communication plans intended to support the promotion of products and services. Preq: COMM 3700.

COMM 3750 Presentation Skills in Brand Communications 1(1) Focuses on the importance of presentation, body language, voice modulation, content and the theater involved in presenting ideas unique to brand communications contexts and professions. Preq: COMM 3700.

COMM 3760 Brand Communications Capstone 3(3) In-depth exploration and analysis of special topics in brand communications, culminating in a final client-based project documented in written, oral, visual and/or multimedia presentations. Students utilize the tenets of effective brand communications strategies while building upon communication fundamentals to build a final portfolio of work that reflects their interests. Preq: COMM 3700 and three of the following courses with a C or better: COMM 3560, COMM 3710, COMM 3720, COMM 3730, or COMM 3740.

COMM 3900 Communication Studies Internship 3(9) Preplanned, preapproved, faculty-supervised internship provides Communication Studies majors with field experience in areas related to their curriculum. May be repeated for a maximum of six credits. To be taken Pass/No Pass only. Preq: Junior standing and consent of faculty advisor.

COMM 3990 Creative Inquiry in Communication Studies 1-4(14) In consultation with and under the direction of a faculty member, students pursue small group work on a particular research topic or practical problem. Arrangements with mentors must be established prior to registration. Content varies. May be repeated for a maximum of nine credits. Preq: COMM 2010 with a C or better.

COMM 4000 Communication and Globalization 3(3) In-depth examination of the role communication plays in globalization processes, including case studies of contemporary social, technical, professional and ethical issues. Preq: COMM 2010 with a C or better.

COMM 4020 Mass Communication: History and Criticism 3(3) Critical examination of mass communication in America, including discussions of history, theory, and current issues in television, film, popular music, telecommunications, and other media. Preq: COMM 2010 with a C or better.

COMM 4040* Media Communication and Social Identities 3(3) Examines the communication of individual and social identities in convergent and mass/social media, and popular culture. Focuses on the communication of identity portrayals and representations, communicative acts in response, and how individuals and groups navigate and create their own media cultures. Addresses factors such as ability, faith, gender, race, age, nationality, subcultures, and/or other areas. Preq: COMM 2010 with a C or better.

COMM 4050 Public Contest and Change 3(3) Examines the role of public communication in the process of contesting social values and practices and in the subsequent change that sometimes occurs. Students explore the public’s relationship with mass media as well as other forms of communication practices that can produce cultural change. Preq: COMM 2010 with a C or better and COMM 3650.

COMM 4250 Advanced Special Topics in Communication and Sport 3(3) Specialized areas of study in the field, emphasizing new directions in research and applications. May be repeated for a maximum of six credits. Preq: COMM 2010 with a C or better.

COMM 4260 Social Media and Sports Communication 3(3) Examines the influence of social media and sports media in smart and how these technologies are changing the communication infrastructure of sport. Students explore how social media is reconfiguring sports media, how sports organizations are managing social media, and how social media affects fan behavior and athlete communication. Preq: COMM 2010 with a C or better.

COMM 4270 Communication in Sports Organizations 3(3) Examines communication dynamics in sports organizations. Among others, topics may include identifying how sports organizations manage crisis communication, communication with stakeholders, sexual harassment, ethical issues, and dissent. Preq: COMM 2010 with a C or better.

COMM 4280 Interpersonal/Family Communication and Sport 3(3) Examines how communication functions in interpersonal and family contexts as it pertains to sports. Examines students to positive and negative communicative behavior with athletes, coaches and families. Challenges students to identify ways that sports can be a healthy, rather than destructive, communicative topic for families and interpersonal relationships. Preq: COMM 2010 with a C or better.

COMM 4300 Legal Communication 3(3) Examines the theory and practice of communication in the legal setting, including the trial and appeal processes. Emphasizes the importance of effective communication in the legal profession.

COMM 4310 Legal Communication Trial 3(3) Advanced study in communication and the law, legal analysis and the elements of trial preparation, including out of court preparation, jury selection, limited motion practice, opening statements, direct examination and cross examination of witnesses, closing arguments, and jury charges. May be repeated for a maximum of nine credits. Preq: COMM 4300.

COMM (ENGL) 4510* Film Theory and Criticism 3(2) Examines the history of film theory and the methods of film theory making emphasizing understanding a variety of critical methods to approach a film. Examines the history of film theory and the methods of film theory making emphasizing understanding a variety of critical methods to approach a film. Examines the history of film theory and the methods of film theory making emphasizing understanding a variety of critical methods to approach a film. Preq: COMM 4300.

COMM (ENGL) 4511* Film Theory and Criticism Laboratory 0(0) Non-credit laboratory to accompany COMM 4510. May also be offered as ENGL 4511. Coreq: COMM 4510.

COMM 4550 Gender Communication 3(3) Examines the ways communication behavior and perceptions of communication behavior are affected by gender. The effects of gender on a variety of communication contexts are examined, including interpersonal, small group, organizational, and mass communication. Preq: COMM 2010 with a C or better.

COMM 4560 Public Relations for Associations and Nonprofits 3(3) Examines principles of communication, editing and journalism applied to publications, public relations and advertising needs within associations and nonprofit organizations. Students learn the expectations of editorial positions in public relations and publications, as defined by trade associations, nonprofit organizations and large corporations. Preq: COMM 3550.

COMM 4620 Communication and Negotiation 3(3) In-depth examination of the role of communication in the development of conflict management, students develop knowledge and skills for distributive bargaining and integrative negotiation climates. Focuses on the objectives, goals, positions, interests, tactic, and other elements to negotiate successfully in a variety of situations. Preq: COMM 3620.

COMM 4640* Advanced Organizational Communication 3(3) Advanced study into the theory of film/video communication. Students study significant issues and methods of intervention and innovation in organizational communication. Preq: COMM 3640.

COMM 4660 Advanced Special Topics in Communication Studies 3(3) Consideration of specialized areas of study in the field, emphasizing theoretical depth or extensive research. May be repeated for a maximum of nine credits, but only if different topics are covered. Preq: Junior or senior standing.

COMM 4700* Communication and Health 3(3) Examines the role of communication in the development of health and health care communication as well as the relationship between social issues, communication, and health. Preq: COMM 2010 with a C or better.

COMM 4800 Intercultural Communication 3(3) Introduces the process of communication between and among individuals from different cultures or subcultures. Emphasizes the effect of cultural practices within various communication relational contexts such as interpersonal, small group, and organizational communication. Preq: COMM 2010 with a C or better.

COMM (ENGL) 4910* Classical Rhetoric 3(3) Examines the development of rhetoric from Protagoras through Isocrates, Plato, Aristotle, Cicero and Quintilian and considers questions essential to understanding persuasive theory and practices. Preq: ENGL 4910. May be also offered as ENGL 4910. Coreq: COMM 4510.

COMM (ENGL) 4920* Modern Rhetoric 3(3) Examines the “new rhetorics” of the 20th century, which are grounded in classical rhetoric but include findings from biology, psychology, linguistics, anthropology, among other disciplines. May also be offered as ENGL 4920. Preq: ENGL 3100.
COMM 4950 Senior Capstone Seminar 3(3) In-depth exploration and analysis of a special topic in Communication Studies, culminating in a senior project documented in written, oral, visual and/or multimedia presentations. Topics vary based on faculty expertise and research interests. May be repeated for a maximum of six credits. Preq: Senior standing in Communication and one of the following courses with a C or better: COMM 3010 or COMM 3020 or COMM 3150.

COMM 4960 Honors Creative Inquiry Capstone 3(3) Capstone course for honors students in the department's creative inquiry sequence. Working with their departmental honors advisor, students apply theoretical understanding and research skills in completing a written product of conference or publication length/quality. Must be taken for a total of six credits over the course of two semesters. Preq: Two of the following courses with a C or better in each: COMM 3060 or COMM 3100 or COMM 3110; and Senior standing in Communication.

COMM 4980 Communication Academic and Professional Development I 1(1) Students reflect upon curricular relationships among general education, major, and minor courses. They complete and revise digital portfolios for presentation to the major, University, graduate schools, or potential employers. Students participate in resume building, job seeking, and interviewing activities. Preq or concurrent enrollment: COMM 4950 or COMM 4960.

COMM 4990 Independent Study 1-3(3-4) Tutorial work for students with special interests or projects in communication studies outside the scope of existing courses. May be repeated for a maximum of nine credits. Preq: Consent of department chair.

COMPUTER SCIENCE


CPSC 1010 Computer Science I 4(3) Introduction to modern problem solving and programming methods. Special emphasis is placed on algorithm development and software life cycle concepts. Includes use of appropriate tools, and ethical issues involving computing and society are discussed. Credit will only be given for one of CPSC 1010, 1060 or 1110. Includes Honors sections. Preq or concurrent enrollment: MATH 1020 or MATH 1040 or MATH 1050 or MATH 1060 or MATH 1070 or MATH 1080 or MATH 2070. Students who do not meet the prerequisite, but who score a satisfactory score on the Clemson Mathematics Placement Test, or have AP or transfer credit for their math requirements, may request a registration override from the instructor. Coreq: CPSC 1011.

CPSC 1011 Computer Science I Laboratory 0(2) Non-credit laboratory to accompany CPSC 1010. Coreq: CPSC 1010.

CPSC 1020 Computer Science II 4(3) Continuation of CPSC 1010. Continued emphasis on problem solving and program development techniques. Examines typical numerical, non-numerical, and data processing problems. Introduces basic data structures. Credit may not be received for both CPSC 1020 and 1070. Includes Honors sections. Preq: CPSC 1010 or CPSC 1110 with a C or better. Coreq: CPSC 1021.

CPSC 1021 Computer Science II Laboratory 0(2) Non-credit laboratory to accompany CPSC 1020. Coreq: CPSC 1020.

CPSC 1040 Introduction to the Concepts and Logic of Computer Programming 2(1) Introduction to the concepts and logic of computer programming. Simple models are used to introduce basic techniques for developing a programmed solution to a given problem. Problem solving techniques are considered. Not open to students who have received credit for CPSC 1010, CPSC 1070, CPSC 1110, or CPSC 1570. Coreq: CPSC 1041.

CPSC 1041 Introduction to the Concepts and Logic of Computer Programming Laboratory 0(2) Non-credit laboratory to accompany CPSC 1040. Coreq: CPSC 1040.

CPSC 1060 Introduction to Programming in Java 4(3) Principles of software development, style and testing. Topics include procedural and object-oriented programming in the context of real-world applications. Credit will be given for only one of CPSC 1010, 1060 or 1110. Preq or concurrent enrollment: MATH 1020 or MATH 1040 or MATH 1050 or MATH 1060 or MATH 1070 or MATH 1080 or MATH 2070. Students who do not meet the prerequisite, but who score a satisfactory score on the Clemson Mathematics Placement Test, or have AP or transfer credit for their math requirements, may request a registration override from the instructor. Coreq: CPSC 1061.

CPSC 1061 Introduction to Programming in Java Laboratory 0(2) Non-credit laboratory to accompany CPSC 1060. Coreq: CPSC 1060.

CPSC 1070 Programming Methodology 4(3) Introduction to programming techniques and methodology. Topics include structured programming, stepwise refinement, program design and implementation techniques, modularization criteria, program testing and verification, basic data structures, and analysis of algorithms. Credit may not be received for both CPSC 1020 and 1070. Preq: CPSC 1060. Coreq: CPSC 1071.

CPSC 1071 Programming Methodology Laboratory 0(2) Non-credit laboratory to accompany CPSC 1070. Coreq: CPSC 1070.

CPSC 1110 Introduction to Programming in C 3(2) Introduction to computer programming in C and its use in solving problems. Intended primarily for technical majors. Basic instruction in programming techniques, algorithms and standard Unix software development tools and utilities. Credit will be given for only one of CPSC 1010, 1060 or 1110. Coreq: CPSC 1111.

CPSC 1111 Introduction to Programming in C Laboratory 0(2) Non-credit laboratory to accompany CPSC 1110. Coreq: CPSC 1110.

CPSC 1150 Introduction to Computational Science 3(3) Introduction to systems thinking. Includes development of dynamical systems models using visual modeling tools and development of dynamical systems using agent based software. Class material investigates elementary science and engineering models.

CPSC 1200 Introduction to Information Technology 3(2) Investigation of ethical and societal issues based on the expanding integration of computers into our everyday lives. Considers historical background, terminology, new technologies and the projected future of computers. Includes practical experience with common computer software technologies. Will not satisfy Computer Science Requirements in any Computer Science major. Coreq: CPSC 1201.

CPSC 1201 Introduction to Information Technology Laboratory 0(2) Non-credit laboratory to accompany CPSC 1200. Coreq: CPSC 1200.

CPSC 1210 Computational Thinking 3(2) Introduces the central idea of computer science, and instills ideas and practices of computational thinking. Students engage in creative activities to learn how computing can change the world. Coreq: CPSC 1211.

CPSC 1211 Computational Thinking Laboratory 0(2) Non-credit laboratory to accompany CPSC 1210. Coreq: CPSC 1210.

CPSC 1610 Introduction to Visual Basic Programming 3(2) Introduction to programming using the Visual Basic language. Topics include simple and complex data types, arithmetic operations, control flow, files, and database programming. Several projects are implemented during the semester. Coreq: CPSC 1611.

CPSC 1611 Introduction to Visual Basic Programming Laboratory 0(2) Non-credit laboratory to accompany CPSC 1610. Coreq: CPSC 1610.

CPSC 1990 Creative Inquiry in Computing 1-3(1-3) Students engage in faculty-led research in the context of a team effort. May be repeated for a maximum of six credits.

CPSC 2070 Discrete Structures for Computing 3(3) Introduces ideas and techniques from discrete structures that are widely used in the computing sciences. Topics emphasize rigorous argumentation and application to the computing disciplines. Preq: CPSC 1010 or CPSC 1060 or CPSC 1110; and MATH 1020 or MATH 1060 or MATH 1070.

CPSC 2120 Algorithms and Data Structures 4(3) Study of data structures and algorithms fundamental to computer science; abstract data-type concepts; measures of program running time and time complexity; algorithm analysis and design techniques. Preq: CPSC 1020 with a C or better or CPSC 1070 with a C or better. Coreq: CPSC 2121.

CPSC 2121 Algorithms and Data Structures Laboratory 0(2) Non-credit laboratory to accompany CPSC 2120. Coreq: CPSC 2120.