Department of Communication

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Chair and Associate Professor: Joseph L. Chesebro, EdD, West Virginia University; *Associate Professor and Associate Dean, School of Arts and Performance:* Virginia M. Bacheler, MS, Syracuse University; *Professor:* Floyd D. Anderson, PhD, University of Illinois; *Associate Professors:* Matthew Althouse, PhD, Louisiana State University; Monica Brasted, PhD, Pennsylvania State University; Carvin Eison, MA, Visual Studies Workshop, SUNY Buffalo; Donna Kowal, PhD, University of Pittsburgh; Katherine Madden, PhD, Pennsylvania State University; *Assistant Professors:* Alexander Lyon, PhD, University of Colorado, Boulder; Karen S. Olson, MS, SUNY Geneseo; Virginia Orzel, MFA, Rochester Institute of Technology; Kevin L. Sager, PhD, University of Washington.

Two major curricula are available to students through the Department of Communication: the communication major and the journalism major.

In addition to the major, the department offers an 18-credit minor in communication studies.

Major in Communication BA or BS
Communication Studies Track

The major in communication studies explores communication in a variety of contexts ranging from interpersonal communication to mass persuasion and the social influence of media. The major enables students to investigate a variety of communication activities with learning experiences in theory, application of theory, and performance. The major's two available specialties permit students to develop a program of study in those aspects of communication studies that suit their academic interests and career goals.

Majors concentrating in the communication studies track are required to complete one of two 18-credit specialties, an 18-credit common core and **either a minor or a second major in a discipline other than communication, broadcasting or journalism**.

Requirements
Students must complete 36 credits in the program, with at least 21 credits in courses numbered 300–499. The student majoring in communication studies, in addition to completing the 18-credit communication studies core, must select *one* of the two *18-credit* specialties offered in the major. At least 15 of the 36 credits in communication studies must be taken at SUNY Brockport.

Successful completion of the major requires students to complete, *with a grade of "C" or better*, CMC Public Speaking and CMC 202 Principles of Communication (required of all majors in the Department of Communication, and must be taken at SUNY Brockport).

I. Communication Studies Core (18 credits required; 6 credits must be in upper-division courses)

A. Required Course:

	Credits
CMC 201 Public Speaking	3
CMC 202 Principles of Communication	3

B. Required Skills Course (one of the following courses selected by advisement):

	Credits
CMC 209 Speech Composition and Presentation	3
CMC 312 Argumentation and Debate	3
CMC 317 Interviewing	3
CMC 319 Propaganda and Persuasion	3

C. Required Core Breadth Courses:

Students majoring in communication studies must complete three additional communication studies core courses (nine credits) of their own choosing in the communication studies major specialty other than that one elected. For example, students electing the communication and persuasion specialty must select nine credits from courses in the personal and organizational communication specialty.

II. Communication Studies Major Specialties (18 credits required; 15 credits must be in upper-division courses)

A. Communication and Persuasion Specialty

Required Courses (9 credits):	**Credits**
One of the following:	
CMC 210 Communication Revolutions	3
CMC 211 Protest and Public Opinion	3
CMC 219 Advertising, Mass Persuasion and the Consumer	3
AND	
CMC 411 Rhetorical Criticism	3
CMC 492 Theories of Rhetoric (completion of CMC 411 highly recommended before enrolling in CMC 492)	3
Elective courses selected from the following (9 credits):	
CMC 373 Critical Studies in Mass Communication	3
CMC 410 Speakers, Campaigns, and Movements	3
CMC 417 Political Rhetoric in the Information Age	3
CMC 419 Freedom of Expression	3
CMC 463 Media and Society	3
CMC 467 Mass Communication Theory and Research	3

B. Interpersonal and Organizational Communication Specialty

Required Courses (9 credits):	**Credits**
CMC 273 Interpersonal Communication	3
CMC 473 Theories of Communication	3
CMC 477 Organizational Communication	3
Elective Courses selected from the following (9 credits):	**Credits**
CMC 316 Interpersonal Communication in Business & the Professions (completion of CMC 316 highly recommended before enrolling in CMC 477)	3
CMC 413 Nonverbal Communication	3
CMC 415 Public Communication in Administration, Business and the Professions	3
CMC 418 Intercultural Communication	3
CMC 472 Group Leadership	3
CMC 475 Communication Internship	3
CMC 479 Conflict Management Through Communication	3
CMC 483 Communication Training and Development	3

III. Required Minor or Second Major in Outside Discipline (other than communication, broadcasting, journalism)

All students pursuing the major in communication studies must also complete a minor (normally 18-21 credits) or a second major (normally 30-36 credits) in a discipline other than communication, broadcasting or journalism.

In lieu of a minor or second major in another discipline, students may elect, *with departmental approval*, a contractual program consisting of a minimum of 18 credits in courses in an area

not identified as a formal minor or major at SUNY Brockport. Study of a foreign language other than French or Spanish (in which minors are offered), bilingual-multicultural studies, or foreign cultural studies is encouraged as such a program.

Minor in Communication Studies (18 credits)
The minor in communication studies requires successful completion of, with a grade of "C" or better, CMC 201 Public Speaking and CMC 202 Principles of Communication. The remainder of the minor consists of 12 credits in one of the two communication studies specialties (communication and persuasion, or interpersonal and organization communication) distributed as follows: nine credits of required courses *and* three credits of elective courses selected by advisement.

Broadcasting Track

The broadcasting track of the communication major prepares students for employment in television and radio stations, cable companies, independent production studios, and corporate media centers.

The broadcasting track consists of at least 39 credits of course work, including 18 credits in liberal arts core courses and 21 credits in specialization courses (nine credits in required courses and 12 credits in elective courses). At least 15 credits in communication must be completed at SUNY Brockport.

Successful completion of the broadcasting track requires that students complete, *with a grade of "C" or better*, the following courses: CMC 200 Intro to Digital Video/Audio, CMC 202 Principles of Communication (required of all majors in the Department of Communication; must be taken at SUNY Brockport), and CMC 242 Fundamentals of Radio/TV.

I. Liberal Arts Core (15 credits):	**Credits**
CMC 202 Principles of Communication	3
CMC 242 Fundamentals of Radio/TV	3
CMC 243 Radio/TV Writing I	3
CMC 467 Mass Communication Theory and Research	3
CMC 496 Contemporary Broadcast Issues	3

II. Specialization Courses (21 credits):
From required and elective lists below

Required Courses (9 credits):	**Credits**
CMC 343 Broadcast Announcing	3
CMC 346 Radio Production (prerequisite: CMC 200)	3
CMC 348 Television Production (prerequisite: CMC 200)	3

Elective Courses	**Credits**
(12 credits required; must be selected from the following):	
CMC 312 Argumentation and Debate	3
CMC 317 Interviewing	3
CMC 319 Propaganda and Persuasion	3
CMC 324 Advanced Media Writing	3
CMC 327 Publishing and Web Design	3
CMC 353 Broadcast Sales and Marketing	3
CMC 358 TV Directing and Field Production	3
CMC 366 Broadcast Journalism	3
CMC 373 Critical Studies in Mass Communication	3
CMC 445 Advanced Radio Production	3
CMC 446 Advanced TV Production	3
CMC 466 Advanced Broadcast Journalism	3
CMC 468 Media Law	3
CMC 475 Communication Internship	3
CMC 495 Senior Honors in TV/Radio Production	3

ART	311 Introduction to Video	3
CSC	105 Internet and Web Publishing	3

III. Required Minor or Second Major in Outside Discipline (other than communication, broadcasting, journalism)

All students pursuing the broadcasting track of the communication major must also complete a minor (normally 18-21 credits) or a second major (normally 30-36 credits) in a discipline other than broadcasting, communication or journalism.

In lieu of a minor or second major in another discipline, students may elect, *with departmental approval*, a contractual program consisting of a minimum of 18 credits of courses in an area not identified as a formal minor or major at SUNY Brockport. Study of a foreign language other than French or Spanish (in which minors are offered). bilingual-multicultural studies or foreign cultural studies is encouraged as such a program.

Major in Journalism BA or BS in Journalism

Administered by the Department of Communication, the major in journalism prepares students for careers in newspaper, magazine, broadcast and wire service journalism; public and community relations; public information; advertising; corporate communications; and government service.

The major in journalism consists of at least 36 credits of course work in journalism and mass communication courses within the Department of Communication, **together with a requirement that students complete a minor or second major (or, with department approval, a contractual program of study not constituting a minor or second major) in a disciplinary area outside the Department of Communication.** Completion of all requirements for the major thus requires a minimum of 54 credits of required and elective courses. At least 15 of the 36 credits required in journalism and mass communication courses must be taken at SUNY Brockport.

Successful completion of the major in journalism requires students to complete, *with a grade of "C" or better,* the following courses, CMC 202 Principles of Communication (required of all majors in the Department of Communication and must be taken at SUNY Brockport); CMC 210 Communication Revolutions in Western Civilization, and *either* CMC 224 Newswriting *or* CMC 243 Radio and Television Writing (or their approved transfer equivalents).

Journalism and Mass Communication Requirements	**Credits**
I. Journalism/Mass Communication Core (27 credits):	
CMC 202 Principles of Communication	3
CMC 210 The Communication Revolutions in Western Civilization	3
EITHER CMC 224 Newswriting **OR**	3
CMC 243 Radio and Television Writing	3
CMC 321 Mass Media Reporting and Research	3
CMC 325 Feature Writing	3
CMC 468 Media Law	3
CMC 493 Contemporary Journalism Issues and Problems	3
AND *two of the following:*	
CMC 373 Critical Perspectives on Mass Communication	3
CMC 438 History of American Journalism	3
CMC 463 Media and Society	3
CMC 467 Mass Communication Theory and Research	3

II. Journalism/Mass Communication Electives selected by advisement from: (minimum of 9 credits required)	**Credits**
CMC 322 Editorial Methods and Problems	3
CMC 324 Advanced Media Writing	3

CMC 327 Publication and Web Design	3
CMC 332 Public Relations Principles and Practices	3
CMC 334 Public Relations Methods and Problems	3
CMC 366 Broadcast Journalism	3
CMC 432 Public Relations Campaigns	3
CMC 466 Advanced Broadcast Journalism	3
CSC 105 Internet and Web Publishing	3

III. Required Minor or Second Major in Outside Discipline (other than communication, broadcasting, journalism)

All students pursuing the major in journalism must also complete a minor (normally 18-21 credits) or a second major (normally 30–36 credits) in a discipline other than journalism, broadcasting or communication.

In lieu of a minor or second major in another discipline, students may elect, *with department approval*, a contractual program consisting of a minimum of 18 credits of courses in an area not identified as a formal minor or major at SUNY Brockport. Study of a foreign language other than Spanish or French (in which minors are offered), bilingual-multicultural studies or foreign cultural studies is encouraged as such a program.

Communication Courses

CMC 200 Introduction to Digital Video and Audio (B). Introduces students to the fundamental terminology, concepts and techniques of digital videography and digital audio. Introduces students to various technical aspects of video and audio production. Examines the basic techniques of production, including camera operation, tripods, lenses, framing and composition, lighting and editing. Presents the basics of the audio production process; including sound recording, basic mixing concepts and digital audio recording.
3 Cr. Every Semester.

CMC 201 Public Speaking (A). A course in the development of effective informational, persuasive, and special occasion speaking. Attention given to analysis of audience, occasion, speech composition, oral delivery, and development of critical listening skills. *3 Cr. Every Semester.*

CMC 202 Principles of Communication (A). Introduces students to selected concepts, principles and theories of human communication. Includes study of verbal and nonverbal messages in the contexts of intrapersonal, interpersonal, group, public, and mediated communication. Required of all students majoring in communication studies or inter-disciplinary communication. Transfer courses will not be accepted to meet this requirement.
3 Cr. Every Semester.

CMC 209 Speech Composition and Presentation (A). *Prerequisite: CMC 201.* For students who wish to go beyond the basics of public speaking. Assists the speaker who wishes to overcome the apathetic or hostile audience, and helps the speaker learn how to motivate those who express sympathy, but are without commitment to an idea. Examines ethics and ghostwriting. *3 Cr.*

CMC 210 The Communication Revolutions (A,H). Examines communication's relationship to society by looking at the impact of communication technologies on the way human beings think about themselves and the world around them, and on the way they organize themselves in social groups. Looks at the impact of communication technologies on human imagination and social organization. Studies communication technologies on a continuum from oral to post-industrial cultures. *3 Cr. Every Semester.*

CMC 211 Protest and Public Opinion (A,D,H,W). Examines rhetorical transactions of group conflict; persuasive use of symbols; effects of mass media; and the process of theory-building in rhetorical studies. *3 Cr. Every Semester.*

CMC 219 Advertising, Mass Persuasion and the Consumer (A,H). Explores the role and influence of advertising and mass persuasion in today's society, theories of persuasion and persuasive techniques commonly employed in advertising and mass persuasion, techniques of persuasive manipulation and its neutralization, and ethics in persuasion. *3 Cr. Every Semester.*

CMC 224 Newswriting and Reporting (A). Provides instruction in the elements of writing news for print and broadcast; types, style and structure of news stories; and the lead. Covers fundamentals

of news gathering, newswriting and news judgment. Studies news sources, field work, research and interviewing techniques. Strongly encourages participation in student campus-community news media. *3 Cr. Every Semester.*

CMC 242 Fundamentals of Radio and Television (A). Provides an introduction to radio and television broadcasting. Studies basic principles and historical, economic and technological aspects of broadcasting and cable. Requires readings in fundamental theory and current practices. *3 Cr. Every Semester.*

CMC 243 Radio and Television Writing (A). *Prerequisite: CMC 242.* As a beginning course in writing for broadcast medium, concentrates on non-dramatic radio and TV continuity: commercials, public service announcements, news, and some work with non-broadcast video writing (e.g., training tapes for corporate work). Contrasts radio and TV writing styles. *3 Cr.*

CMC 273 Interpersonal Communication (A,S). Introduces students to the theory and process of interpersonal communication, examining and applying the concepts and principles basic to interpersonal encounters. Acquaints students with the essentials of communication transactions in experiential learning opportunities that lead to effective skills; intimate, inter-gender, families; professional and intercultural relationships. *3 Cr. Every Semester.*

CMC 312 Argumentation and Debate (A). Provides for the preparation and defense of logical argument, response to attacks by opponents, construction of cross-examination, undergoing cross-examination, research and support of arguments, and recognition and refutation of fallacies. *3 Cr.*

CMC 316 Interpersonal Communication in Business and the Professions (A). Covers the principles of interpersonal communication in organizations, facts and principles of organizational communication, participation in and analysis of lab learning experiences, and the synthesis and use of facts and principles to analyze the communication patterns illustrated in reality-based case studies and in data gathered through field observations. *3 Cr.*

CMC 317 Interviewing (A). Provides an introduction to principles of effective interviewing. Focuses on specific purposes, types, and the skills applied to different interview situations. Includes assignments for analysis, preparation, conducting and assessing of interviews. *3 Cr.*

CMC 321 Media Reporting and Research (A). *Prerequisite: either CMC 224 or CMC 243.* An advanced media writing course covering and providing extended practice in essential skills of reporting and writing for print, broadcast and online news media, and writing for public relations and advertising. Emphasizes use of online sources and databases in gathering and reporting information. *3 Cr. Spring.*

CMC 322 Editorial Methods and Practices (B). *Prerequisite: CMC 321.* Studies editorial processes and practices in print, broadcast and online publishing, with emphasis on assignment editing, copy editing and editorial judgment. Requires preparation editing of material for print, broadcast and online publication; copy correction and improvement; evaluation of news and news values; news and copy display and make-up. Uses student-prepared copy and wire copy. Strongly encourages participation on student campus-community newspaper. *3 Cr.*

CMC 324 Advanced Media Writing (A). *Prerequisite: CMC 321.* As an advanced course in writing for print, broadcast, online and public relations media, emphasizes the commonalities and differences among writing formats, mechanics, and approaches of each medium. Embraces and provides practice in the use of the variety of media technologies available to writers. Assumes basic proficiency in writing for at least one medium. *3 Cr.*

CMC 325 Feature Writing (A). *Prerequisite: CMC 224.* Continues and extends instruction and practice in writing for all media forms and in a variety of formats. Provides guided practice in writing features, public affairs, opinion and other media content types and practice in gathering, interpreting and synthesizing information from a wide variety of sources, including print and electronic databases. *3 Cr. Every Semester.*

CMC 327 Publication and Web Design (A). *Prerequisite: either CMC 224 or CMC 243.* Introduces the basic elements of both print and Web publication design and production: headlines, text, photos and illustrations, type manipulation and use, charts and graphs, Web site links, hypertext, sound, video and other emerging publication technologies. *3 Cr. Fall.*

CMC 332 Public Relations Principles and Practices (A). *Prerequisite: CMC 224.* Covers the principles, practices, media and methods of public relations and information. Emphasizes public relations functions, communication and publicity techniques. Analyzes relations with publics such as the press, employees, stockholders, and consumers. *3 Cr. Spring.*

CMC 334 Public Relations Methods and Cases (A). *Prerequisite: CMC 332.* Provides an introduction to, demonstration in, and application of public relations techniques, tools and procedures to both hypothetical and actual public relations cases. Emphasizes action and communication techniques and practices used in public relations planning, production of informational and persuasive messages, and evaluation of action and communication activities. *3 Cr. Fall.*

CMC 343 Broadcast Announcing (B). *Course fee. Prerequisite: CMC 242.* Covers basic broadcast announcing with an emphasis on preparation and presentation of news, editorial content, commercials, public service announcements, and dramatic and narrative content. *3 Cr. Every Semester.*

CMC 346 Radio Production (B). *Course fee. Prerequisite: CMC 200. Corequisite: either CMC 243 or CMC 343 (may be taken concurrently).* Covers the principles and practices of radio productions while providing practical experience. Includes assigned projects on production of music, news and public affairs programming, remote taping, analog audio, editing, digital recording. *3 Cr.*

CMC 348 Television Production (B). *Course fee. Prerequisites: CMC 200 and CMC 346.* Covers the principles and practices of television production, with projects designed for television broadcast. Requires students to produce and direct both in-studio and field projects. *3 Cr. Every Semester.*

CMC 353 Broadcast Sales and Marketing (B). Explores techniques and problems of modern broadcast sales, marketing and programming. Requires projects to develop latest methods in broadcast commercial marketing, planning, audience analysis, and programming in both radio and television. *3 Cr. Spring.*

CMC 358 Engineering Field Production (B). *Course fee. Prerequisite: CMC 348 and instructor's permission.* Provides practical experience in single-camera field shooting and editing, including electronic news gathering techniques. Provides students with an opportunity to direct studio productions as part of campus television services. Provides numerous assignments in studio and field lighting, shooting, interviewing and editing. *3 Cr. Fall.*

CMC 365 Newspaper Practicum (B). *Prerequisite: Instructor's permission.* Open to students serving on editorial or executive board of, or in designated positions of major editorial, advertising, managerial or production responsibility with, the student campus-community newspaper. May not be used to satisfy requirement for completion of major. May be repeated for maximum of 12 credits. *1-12 Cr. Every Semester.*

CMC 366 Broadcast Journalism (B). *Course fee. Prerequisite: either CMC 224 or CMC 243.* Covers current practices and issues in radio-television news. Provides supervised practice in gathering, writing and presenting broadcast news. Emphasizes responsibility in news preparation and presentation. Requires reporting with audio and videotape recorders; broadcast of news programs over campus media. *3 Cr. Fall.*

CMC 373 Critical Perspectives on Mass Communication (A). Focuses on film, video, print and other mass-mediated content and forms as cultural artifacts which comment on the societies within which they are produced. Studies media technique and a variety of critical approaches to explore the explicit and hidden messages in these artifacts. *3 Cr. Fall.*

CMC 399 Independent Study in Communication (A). To be decided prior to registration in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement. *1-6 Cr. By Arrangement.*

CMC 410 Speakers, Campaigns and Movements (A,D,W). Surveys significant historical and contemporary speakers, persuasive campaigns and rhetorical movements, with special attention to the introduction of women to the speaking platform and to historical and contemporary spokespersons and movements on behalf of racial and gender equality. *3 Cr. Spring.*

CMC 411 Rhetorical Criticism (A). Explores methods of rhetorical criticism and application of methods of criticism to rhetorical discourse, including verbal and visual forms of persuasion. *3 Cr. Spring.*

CMC 413 Nonverbal Communication (A). Explores multisensory communication codes for human interaction through channels such as paralanguage, space, time, body, and artifacts. Takes a functional approach considering purpose and context to determine the situational characteristics and codes. *3 Cr. Spring.*

CMC 415 Public Communication in Administration, Business and Professions (A). *Prerequisite: either CMC 316 or CMC 332.* Covers communication in business and professional settings, business and professional community needs; and reading, understanding and interpretation for audiences of business and professional statements and data. *3 Cr.*

CMC 417 Political Rhetoric (A,W). Critically examines significant 20th-century American political speeches and campaigns. Explores the ways in which individuals and institutions use media to exercise power and influence opinion through the use of verbal and visual symbols. Places special emphasis on representations of gender in political rhetoric. *3 Cr. Fall.*

CMC 418 Intercultural Communication (A). Explores cultural similarities and differences affecting communication and intercultural competencies for interaction between cultural groups and individuals along gender, ethnic, and national lines. *3 Cr. Spring.*

CMC 419 Problems in Freedom of Speech (A,D,I,W). Critically examines the First Amendment by exploring its historical foundations and significant legal, political and philosophical arguments. Explores a variety of contemporary controversies concerning an individual's right to freedom of verbal and nonverbal expression, including hate speech, incitement to violence and obscenity. Examines controversies in a variety of contexts, including the public speaking platform, print, television and the Internet. *3 Cr. Spring.*

CMC 432 Public Relations Campaigns (A). *Prerequisite: CMC 332.* Focuses on the treatment of an organization's public relations and information, including situation analysis and research, program and campaign planning, development of communications materials and activities, and program management. Provides experience in planning and executing public relations campaigns and programs. *3 Cr. Spring.*

CMC 438 History of American Journalism (A). *Prerequisite: CMC 210.* Covers the evolution and development of the media of American journalism from their beginnings in England and Colonial America to the present, and the dominant personalities who helped shape them, relating them to their social, political and economic environments. *3 Cr.*

CMC 445 Advanced Radio Production (A). *Course fee. Prerequisite: CMC 346.* Covers advanced principles and practices of radio productions while providing practical experience. Includes assigned projects, studio work, and digital production. *3 Cr.*

CMC 446 Advanced Television Production (B). *Course fee. Prerequisite: CMC 348.* Requires students to write, produce and direct advanced problems for television. Allows students to work individually and in small production units. Focuses on the development and execution of professional television production problems. Allows students to gain practical skills and finish the course with work that could be used in their video résumé tape or portfolio. *3 Cr. Spring.*

CMC 463 Mass Communication and Society (A). *Prerequisite: CMC 210.* Covers significant phases, issues and controversies in the historical development of mass communication in the United States. Emphasizes contemporary media relationships with, and impact on, intellectual, socio-political, economic and technological aspects of, culture and society. Considers daily and other periodical press, radio, television and film. *3 Cr. Spring.*

CMC 466 Advanced Broadcast Journalism (B). *Course fee. Prerequisite: CMC 366.* Provides experience in gathering, writing and producing news broadcasts for campus cable channel. Covers broadcast principles and practices with an emphasis on news and public affairs programming. *3 Cr. Spring.*

CMC 467 Theories of Mass Communication (A). *Prerequisites: CMC 202 and one of CMC 210, CMC 219 or CMC 242.* Examines and critiques the theoretical and research literature describing and explaining mass communication purposes, processes, messages, media, audiences, settings and effects at the individual, group and societal levels. Gives attention to the cognitive, attitudinal and behavioral outcomes of mass communication in social, political, economic and other societal domains. *3 Cr.*

CMC 468 Mass Communication Law and Ethics (A). Studies the legal considerations and issues affecting media communication in all its forms, including computer database, Internet and "new media" issues. Emphasizes defamation and libel, privacy privilege, copyright and trademark law, contempt, obscenity, fairness and responsibility in media practice. Examines both governmental regulation and controls and self-regulatory media codes. *3 Cr.*

CMC 472 Group Leadership (A). Examines group processes, relationships and leadership in task-oriented groups, such as committees, task forces, teams, and problem-solving groups. Includes topics such as analysis of group processes, agenda planning, motivation of participation, conflict management, team building, and group leadership styles and techniques. *3 Cr. Spring.*

CMC 473 Theories of Communication (A). *Prerequisite: CMC 202.* Covers classical and contemporary theories of human communication, research and practical applications of theory, relation of theoretical concepts to instances of communication behavior, and identification of salient communication theses. *3 Cr. Every Semester.*

CMC 475 Communication Internship (B). *Prerequisite: Instructor's permission and senior status.* Provides a supervised practicum experience in professional organizations appropriate to the student's academic program. Application for internship must be received during the semester preceding the internship experience. *3 Cr.*

CMC 477 Organizational Communication (A). *Prerequisite: either CMC 273 or CMC 316.* Integrates communication theories with practice of communication in organizations. Emphasizes communication roles and culture of organizations as a force in organizational philosophy and world view. Provides practice in diagnosing and improving organizational communication systems. *3 Cr. Every Semester.*

CMC 479 Conflict Management (A). Covers interpersonal conflict and its essential characteristics; evolution of the study of social conflict; perspectives from which social conflict is viewed, including psychological, social-psychological, sociological, economic, political and mathematical; the sources, conditions and consequences of social conflict in a given social setting; and skills of conflict management. *3 Cr.*

CMC 483 Communication Training and Development (A). *Prerequisite: Instructor's permission.* Introduces communication training with emphasis on practice in designing, facilitating, and evaluating a workshop presentation in an organizational setting. *3 Cr.*

CMC 490 Special Studies (A). An umbrella course enabling the instructor to define the course focus and subject matter to address a topic or topics not covered in other communication courses. May be repeated for credit under different topics course title. Additional information can be obtained from Communication department office. *1-3 Cr.*

CMC 492 Theories of Rhetoric (A). Provides an intensive study of classical and contemporary theories of persuasion and social influence. Gives attention to the application of theory to the practice of social influence. *3 Cr. Fall.*

CMC 493 Contemporary Journalism Issues and Problems (A). *Prerequisite: CMC 210, and junior and senior status.* Provides an in-depth study of one or more instructor-selected contemporary issues or problems in journalism, public relations and/or mass communication. Issues and problems selected will vary with each offering and may be either conceptual or applied. *3 Cr. Every Semester.*

CMC 495 Senior Honors in Radio-TV Production (B). *Course fee. Prerequisite: Senior status and instructor's permission.* Open only to students in broadcasting track. Requires students to research, produce, record and direct radio or TV projects for which they are solely responsible. Radio projects may include works generated at College radio station specifically for this course. Projects are publicly presented to the college community. *3 Cr.*

CMC 496 Contemporary Broadcast Issues (B). *Prerequisite: Broadcasting major and senior status.* Allows for a supervised study of selected contemporary issues or problems in broadcasting. Selected issue or problem may be either conceptual or applied. *3 Cr. Every Semester.*

CMC 499 Independent Study in Communication (A). *Prerequisite: Instructor's permission.* To be decided prior to registration in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement. *1-6 Cr. By Arrangement.*

Communication Meteorology—Interdisciplinary Minor

Advisor: Jose A. Maliekal, Department of the Earth Sciences (585) 395-2636.
A minor in the area of meteorological communication is available to students who wish to become informed interpreters and communicators of weather information to mass audiences via electronic and print media. The minor consists of 19 or more credits selected from courses in the Departments of Communication and the Earth Sciences and elsewhere as appropriate to individual goals.

Courses will be selected, by advisement, in various combinations depending on the individual's background and major program. Typical courses that may be included are:

Broadcasting	Meteorology	Journalism
CMC 343	ESC 211	CMC 224
CMC 346	ESC 311	CMC 243
CMC 348	ESC 312	CMC 325

Additional electives from these departments or others may be chosen to complete the concentration. At least 12 of the credits must be at the 300/400 level. The program should be supplemented by electives to represent a balance of one of the communication concentrations and the meteorology area. Courses applied toward a major or any other minor may not also be counted toward this minor.

Department of Computational Science

129 Smith Hall
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www.brockport.edu/cps/

Chair and Associate Professor: Robert E. Tuzun, PhD, University of Illinois/Urbana-Champaign; *Empire Innovation Professor:* Osman Yasar, PhD, University of Wisconsin/Madison; *Associate Professor:* Leigh J. Little, PhD, Arizona State University; *Assistant Professor:* Wensheng Shen, PhD, University of Kentucky.

Along with traditional experimental and theoretical methodologies, advanced work in all areas of science and engineering has come to rely critically on computation. Computer modeling combined with visualization represents a new paradigm for scientific exploration and technological research and development. It permits a new approach to problems that were previously inaccessible. The goal of the computational science program is to enable students to perform computational modeling in problems of technological and societal relevance. To this end, students learn a core set of skills in mathematics, computer programming, visualization, and simulation/modeling. Students may then apply these skills to application areas of interest to them.

Nearly all areas of science and engineering now use computers for modeling and problem solving. The aerospace industry uses this approach to design safe and economical aircraft. The automobile industry uses similar techniques to design better engines and safer vehicles. Computational technology is used in the medical and pharmaceutical industries to develop new drugs, process medical records, and assist in medical procedures. Meteorologists use computational techniques to predict the weather and long-term climate changes. Ecologists and biologists use computer models to study the environment, population dynamics, and the influence of pollutants on the body, the air and the ocean. The genetic blueprint of human beings is about to be mapped

out in its entirety through computer modeling. Economists use computers to predict future behavior of many financial systems, including the stock market. Computer modeling enables the study and performance testing of systems before they are put into production. This approach has saved billions of dollars and years of development time.

The Department of Computational Science has received equipment support from Intel and Silicon Graphics and works closely with local industry, particularly Xerox Corporation and Eastman Kodak Company. The program is flexible so as to allow students to follow their particular interests and continue, if desired, with advanced degrees. Graduates can expect employment in industry, government, business, academia, and at major research and development laboratories.

Major in Computational Science

The computational science undergraduate major requires 36 credits of the following courses from the Departments of Computational Science, Computer Science, and Mathematics and from the department of an application area of interest. Six additional credits of elective courses are required.

(a) Required Courses			**Credits**
MTH	203	Calculus III	4
MTH	243	Elementary Statistics	3
MTH	324	Linear Algebra	3
CSC	203	Fundamentals of Computer Science I	4
CPS	201	Computational Tools I	3
CPS	202	Computational Tools II	3
CPS	303	High Performance Computing	3
CPS	304	Simulation and Modeling	3
CPS	404	Applied and Computational Mathematics	3

(b) Elective Courses

200-level and higher non-CPS courses from an area of application chosen under advisement	12
Upper-division elective courses	6

Total credits (including electives): 47

(c) Prerequisites

Calculus I and II (MTH 201 and 202—8 credits)
Discrete Mathematics I (MTH 281—3 credits)
Introduction to Computer Science (CSC 120—3 credits)

Minor in Computational Science

(a) Required Courses			**Credits**
CPS	201	Computational Tools I	3
CPS	202	Computational Tools II	3
CPS	303	High Performance Computing	3
CPS	304	Simulation and Modeling	3

(b) Elective Courses

200-level and higher courses in math and sciences chosen under advisement	8

Total Credits (including electives): 20

(c) Prerequisites:

Calculus III (MTH 203—4 credits)

Combined BS/MS Program in Computational Science
The combined BS/MS degree is designed for high-parameter students wishing to accelerate the pace of their studies and to receive bachelor's and master's degrees in computational science within five years. To be considered for entry into this program requires a GPA of at least 3.25, a written application, and interviews with the departmental undergraduate and graduate directors. In addition to the required courses listed above, the combined program requires undergraduate electives, duplicate requirements (simultaneously satisfying undergraduate elective and graduate core requirements), research experience, and graduate electives.

(a) Elective Courses		**Credits**
200-level and higher non-CPS courses from an area of application chosen under advisement		6
(b) Duplicate Requirements		
CPS 533	Scientific Visualization	3
CPS 602	Advanced Software Tools	3
CPS 604	Computational Methods in the Physical Sciences	3
CPS 644	Supercomputing and Applications	3
(c) Research Experience		
CPS 698	Graduate Seminar	1
CPS 699*	Independent Study	3
CPS 710	Thesis	3
* 3 credits of CPS 699 are required, but up to 9 total may be taken		
(d) Elective Courses (chosen through advisement)		
Four 600-level or higher graduate courses		12

Note: Information on graduate courses and electives may be found in the SUNY Brockport *2007-2009 Graduate Studies Catalog.*

Computational Science Courses

CPS 101 Introduction to Computation (A,N). *Prerequisites: MTH 121 or instructor's approval.* An introduction to computation as used in science and engineering. Emphasizes practical applications of formulas to real-life problems and on tools for their solution. Topics include: (1) some basic techniques used in computational modeling (linear regression for data-fitting, determination of areas and volumes, rate of change, and use of graphical calculator), (2) essentials of programming in FORTRAN 90; and (3) essentials of the UNIX operating system (basic commands, editors, file manipulation). *3 Cr.*

CPS 201 Computational Tools I (A). *Prerequisites: CSC 120 or CPS 101.* An introduction to fundamental concepts of computational science using the Fortran 90 programming language, and the clear and concise written presentation of scientific results. Topics include: the Fortran 90 language, program construction and debugging, consequences of finite precision arithmetic, basic machine constants, and modeling of simple physical situations. May also include other modeling tools such as Stella, Agent Sheets, and Project Interactivate. Extensive programming required. *3 Cr.*

CPS 202 Computational Tools II (A). *Prerequisite: CPS 201.* A continuation of CPS 201. Emphasizes commonly encountered scientific programming libraries (BLAS, LAPACK, ATLAS). Model problems in numerical linear algebra are heavily utilized. Topics include: advanced topics in Fortran 90 Programming (data structures, overloaded functions, dynamic memory allocation), programming in MATLAB, use of the UNIX operating system, use of the BLAS, LAPACK and ATLAS libraries, optimization of programs (by hand and via compiler optimization), and technical writing. Extensive programming in Fortran 90 and MATLAB required. *3 Cr.*

CPS 300 Internet and Technology Ethics (A,I). The Internet has rapidly become a primary source of information, communication and entertain-

ment for society. However, the rapid expansion has resulted in numerous issues that can adversely affect all Internet users. More importantly, new regulations are being passed that can expose users to significant legal risks. Fundamental legal principles that affect all users of the Internet will be discussed and analyzed. *3 Cr.*

CPS 301 Issues in Criminal and Forensic Computing (A,I). A discussion of issues related to the use of computers in the criminal justice system. Discussions of growing capabilities in and ramifications of such areas as forensic computing, criminal profiling, fingerprint identification, video image processing, and simulation of crime scenes. In addition, discussions of emerging and future trends in the use of computers as a crime fighting tool. *3 Cr.*

CPS 302 Society, Science and Technology (A,I). Discusses ways society and science have affected each other. Introduces a historical perspective of this relation for the past several decades, including the contemporary society. Identifies trends and changes within science and technology in relation to the larger society. Students will attend lectures, discuss issues, and write essays. *3 Cr.*

CPS 303 High Performance Computing (A). *Prerequisite: CPS 202.* An introduction in applied parallel computing, using the Message Passing Interface (MPI) standard for parallel communication. Topics include: parallel architectures, problem decomposition, extracting parallelism from problems, benchmarking and performance of parallel programs, applications to the sciences, and technical writing. Extensive programming in Fortran 90 and/or C/C++ required. *3 Cr.*

CPS 304 Simulation and Modeling (A). *Prerequisites: CPS 202 and MTH 203; and either MTH 243 or MTH 346.* An introduction to stochastic and deterministic methods used to simulate systems of interest in a variety of applications, with emphasis on problem set-up and analysis and programming methods. Part I: discrete event simulation and statistical analysis of results. Part II: other examples of stochastic simulations such as the spread of forest fires. Part III: deterministic methods for particle simulations, with examples from astronomical and molecular simulation. In addition, a brief discussion of the simulation of continuous media. Extensive programming required. *3 Cr.*

CPS 404 Applied and Computational Mathematics (A). *Prerequisites: CPS 304 and MTH 203; and either MTH 243 or MTH 346.* A survey of scientific computing methods, emphasizing programming methods, interpretation of numerical results, and checks for numerical sensibility and self-consistency. The course is divided into several modules, including: (1) representation of floating point data, truncation and rounding error, and basic considerations for accurate numerical computation; (2) iterative numerical methods; (3) numerical differentiation and integration; (4) numerical interpolation; (5) random number generation; (6) the Fast Fourier Transform; and (7) numerical solution of ordinary differential equations. Extensive programming required. *3 Cr.*

CPS 417 Introduction to Computational Chemistry (A). *Cross-listed as CHM 417.* An introduction to classical and quantum simulation methods as applied to chemistry-related problems and computational chemistry software packages. Part I: introductory material, potential energy surfaces, vibrational and electronic properties of molecules, and capabilities/limitations of computational chemistry. Part II: classical molecular simulation methods, molecular dynamics, molecular mechanics, Monte Carlo calculations, normal coordinate analysis, computer "measurement" of materials properties. Part III: the Schrodinger equation, common electronic structure methods, basic sets, geometric optimization, and molecular properties. *3 Cr.*

CPS 461 Introduction to Computational Biology (A). *Prerequisites: CPS 202, BIO 111 and CHM 206.* An introductory survey of the applications of high performance computer modeling and simulation to biological problems. Includes topics such as molecular simulation for structure determination and dynamical properties of biological molecule, and bioinformatics. Uses computational tools such as Biology Benchmark, MATLAB, and AMBER. *3 Cr.*

NAS 401 Computational Methods for Teachers I (A). *Prerequisite: Instructor's permission.* Enables teachers and teacher candidates in mathematical, physical, life and earth sciences to learn computational tools, advanced graphing calculators, laptop computers, CD-and Web-based tools. Involves computational science as a process in solving real-world problems in sciences. Introduces students to technology tools (such as graphing calculators), math modeling tools (such as Excel, STELLA, and Geometer's Sketchpad), agent-based modeling tools (such as AGENT SHEETS), science modeling tools (such as Interactive Physics). Includes a section on New York state K-12 standards in math, science and technology. *3 Cr.*

Department of Computer Science

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Chairperson and Professor: Kadathur B. Lakshmanan, PhD, Ohio State University; *Professors*: Kulathur S. Rajasethupathy, PhD, Tata Institute; Thambrahalli M. Rao, PhD, Indian Institute of Science; *Associate Professors*: Joan M. Lucas, PhD, Princeton University; Sandeep R. Mitra, PhD, SUNY Binghamton; Anthony Scime, DA, George Mason University; *Assistant Professors*: Vishal Anand, PhD, SUNY Buffalo; Francis Andoh-Baidoo, PhD, Virginia Commonwealth University; Wan Huang, PhD, University of Alabama, Tuscaloosa; *Lecturer*: Daniel F. Rogers, MS, Syracuse University.

Computer science is the study of the theory and practice of computation. A computer scientist creates new hardware and software that is more efficient, effective, and reliable. Computer information systems, on the other hand, is the study of the use of computers for systematic organization of data that supports efficient and accurate collection, processing, analysis and retrieval of information. An information system specialist applies existing technology to solve real world problems. Both incorporate aspects of several other fields: mathematics, to analyze the properties of algorithms and data structures; engineering, to design and construct practical programs and machines; the experimental sciences, both to investigate the behavior of programs running on real machines and to use programs for modeling scientific phenomena; and the cognitive sciences, to develop "intelligent" programs and to study computation in relation to human intelligence.

Computer science and information systems are young and rapidly developing fields. Presently their chief areas, reflected in regular course offerings at SUNY Brockport, are: design and analysis of algorithms, programming languages, systems analysis, software engineering, project management, database systems, e-commerce, computer architecture, operating systems, computer security, artificial intelligence, decision support and expert systems, networking, multimedia, etc. Other areas are covered in independent study and topics courses. In addition, students can gain valuable job experience through internship programs and Brockport Career Exploration Courses (BCEC).

The computer science major provides students with an excellent basis for a variety of careers and for graduate study. Possible careers include programming, system analysis and design, maintenance, management and user support of software in areas such as business, science, engineering and computer systems. Fields of graduate study, for which a double major with mathematics is advisable, include not only computer science, but mathematics, information management, and various areas of science and engineering.

The student interested in computer science has several options to choose from: a major in computer science in the advanced computing (AC) track, which is accredited by Computing Accreditation Commission [CAC] of ABET; the software development (SD) track; or the information systems (IS) track; a double major in computer science and another discipline such as mathematics or business administration; and a minor in computer science and a minor in computer information systems. All three tracks have several entry-level courses in common. Hence, the selection of a specific track may be postponed until the sophomore year.

Major in Computer Science

1. Advanced Computing Track of the Computer Science Major (68 credits)
(Accredited by Computing Accreditation Commission [CAC] of ABET)

For a major in computer science in the AC track, a student must complete the following 68 credits of computer science, mathematics and science courses. In addition, the grade for each of CSC 203, 205 and 311 must be "C" or better. Other restrictions apply. See Notes below.

A. Core Courses (37 credits)		**Credits**
CSC 203	Fundamentals of Computer Science I	4
CSC 205	Fundamentals of Computer Science II	4
CSC 209	UNIX Tools	1
CSC 303	Digital Logic and Computer Design	3
CSC 311	Computer Organization and Software Interface	4
CSC 401	Programming Languages	3
CSC 406	Algorithms and Data Structures	3
CSC 411	Computer Architecture	3
CSC 412	Operating Systems	3
CSC 427	Software Systems Engineering	3
CSC 483	Theory of Computation	3
CSC 486	Junior/Senior Seminar	3

B. Elective Courses (9 credits)
Three CSC courses numbered 400-489, selected under advisement.
Restrictions apply. See notes below. 9

C. Mathematics Corequisites (10 credits)		
MTH 202	Calculus II	4
MTH 346	Probability and Statistics I	3
MTH 481	Discrete Mathematics II	3

D. Science Corequisites (12 credits) 12

(i) A two-semester sequence in a lab science for science/engineering majors. For example, PHS 201-202, CHM 205-206, BIO 201-202, ENV 202-303, ESC 211-311, GEL 201-302.

(ii) Each remaining course must be a course in science or a course that enhances the student's abilities in the application of the scientific method. Each course must be a course for science/engineering majors or a course with a strong emphasis on quantitative methods.

Total: 68

Notes:
1. The prerequisite for CSC 203 is CSC 120. The prerequisite for MTH 202 is MTH 201. The prerequisites for MTH 481 are MTH 201 and MTH 281.
2. A student must take at least 30 credits in non-mathematics, non-science courses.
3. A student must take at least 15 credits in mathematics courses.
4. A student must take at least 30 credits in mathematics and science courses combined.
5. At least 18 of the credits used to satisfy the core or elective requirements in the major must be earned at SUNY Brockport.
6. A maximum of six credits can be earned by "credit by portfolio assessment," and a maximum of six credits can be earned by "departmental credit by examination."

2. Software Development Track of the Computer Science Major (43 credits)
For a major in computer science in the SD track, a student must complete the following 43 credits of computer science and mathematics courses. In addition, the grade for each of CSC 203, 205 and 311 must be "C" or better. Other restrictions apply. See Notes below.

A. Core Courses (28 credits)		**Credits**
CSC 203	Fundamentals of Computer Science I	4
CSC 205	Fundamentals of Computer Science II	4
CSC 209	UNIX Tools	1
CSC 303	Digital Logic and Computer Design	3
CSC 311	Computer Organization and Software Interface	4
CSC 401	Programming Languages	3

CSC 406	Algorithms and Data Structures	3
CSC 411	Computer Architecture	3
CSC 486	Junior/Senior Seminar	3

B. Elective Courses (12 credits)
Four CSC courses numbered 400-489, selected under advisement. Restrictions apply. See notes below. 12

C. Mathematics Corequisite (3 credits)

MTH 481	Discrete Mathematics II	3

Total: 43

Notes:
1. The prerequisite for CSC 203 is CSC 120. The prerequisites for MTH 481 are MTH 201 and MTH 281.
2. At least 18 of the credits used to satisfy the core or elective requirements in the major must be earned at SUNY Brockport.
3. A maximum of six credits can be earned by "credit by portfolio assessment," and a maximum of six credits can be earned by "departmental credit by examination."

3. Information Systems Track of the Computer Science Major (65 credits)
For a major in computer science in the IS track, a student must complete the following 65 credits of computer science, computer information systems, mathematics, and information systems environment courses. In addition, the grade for each of CSC 203, CSC 205, CIS 202 and CIS 303 must be "C" or better. Other restrictions apply. See Notes below.

A. Core Courses (35 credits)		**Credits**
CSC 203	Fundamentals of Computer Science I	4
CSC 205	Fundamentals of Computer Science II	4
CSC 209	UNIX Tools	1
CSC 442	E-Commerce Technology	3
CSC 486	Junior/Senior Seminar	3
CIS 202	Fundamentals of Information Systems	3
CIS 206	IT Tools	1
CIS 303	Information Technology Hardware and Software	3
CIS 317	Analysis and Logical Design of Information Systems	4
CIS 419	Computer Networks and Internet Applications	3
CIS 422	Physical Design and Implementation with DBMS	3
CIS 427	Project Management and Practice	3

B. Elective Courses (6 credits)
Two CSC or CIS courses numbered 400-489, selected under advisement. Restrictions apply. See notes below. 6

C. Math Corequisites (9 credits)

MTH 243	Elementary Statistics	3
MTH 281	Discrete Mathematics I	3
One MTH course selected from MTH 201, 221, 343, 441, 461, 463, 481		3

D. IS-Environment Corequisites (15 credits) 15
15 credits in a cohesive body of knowledge to prepare the student to function effectively as an IS professional. Select, under advisement, from (but not limited to) the following disciplines: business administration, healthcare administration, recreation and leisure studies, and sports management.

Total: 65

Notes:
1. The prerequisite for CSC 203 is CSC 120. The prerequisite for CIS 202 and CIS 206 is CSC 104 or CIS 106.
2. A student must take at least 30 credits in General Education courses.
3. The following CSC courses are NOT allowed as CIS electives: CSC 411, 419, 422, 427 and 434.
4. At least 18 of the credits used to satisfy the core or elective requirements in the major must be earned at SUNY Brockport.
5. A maximum of six credits can be earned by "credit by portfolio assessment," and a maxi mum of six credits can be earned by "departmental credit by examination."

Minor in Computer Science
For a minor in computer science, a student must complete the following 18 credits of computer science courses, of which at least half of the credits must be taken at SUNY Brockport. Note that the prerequisite courses are CSC 120, MTH 122 and MTH 281.

A.	**Core Courses (9 credits)**		**Credits**
	CSC 203	Fundamentals of Computer Science I	4
	CSC 205	Fundamentals of Computer Science II	4
	CSC 209	UNIX Tools	1
B.	**Elective Courses (9 credits)**		9
	Three CSC courses numbered 300-489, selected under advisement.		
		Total:	**18**

Minor in Computer Information Systems
For a minor in computer information systems, a student must complete the following 18 credits of CSC and CIS courses, of which at least half of the credits must be taken at SUNY Brockport. Note that the prerequisite courses are CSC 104 (or CIS 106), CSC 120 and MTH 122.

A.	**Core Courses (9 credits)**		**Credits**
	CSC 203	Fundamentals of Computer Science I	4
	CSC 209	UNIX Tools	1
	CIS 202	Fundamentals of Information Systems	3
	CIS 206	IT Tools	1
B.	**Elective Courses (9 credits)**		9
	Three courses, selected under advisement, from the following list: CIS 300-489, CSC 205, CSC 212, CSC 300-489 (except CSC 303, 311, 411, 419, 422, 427, 434)		
		Total:	**18**

Note: For additional and updated information, see the *Computer Science Handbook* available in the Department of Computer Science.

Computer Science Courses

CIS 106 End-User Computing (A). Develops students' acumen in key end-user computing technologies, to a level that will allow students to utilize technology successfully in the workplace and to meet the contemporary expectations of employers. Includes topics such as word processing, operating systems, spreadsheets, office presentation, network applications, and databases. Requires extensive lab work. *3 Cr. Every Semester.*

CIS 202 Fundamentals of Information Systems (A). *Prerequisites: CSC 104 or CIS 106.* Introduces the use of information systems and information technology in organizations. Considers concepts of information management, systems theory, quality, enhanced decision making, and added value in products and services. Stresses information technology, including computing and telecommunications systems. Teaches students to analyze requirements, define an information system, and develop custom solutions to enhance productivity. *3 Cr. Every Semester.*

CIS 206 Information Technology Tools (A). *Prerequisite: CSC 104 or CIS 106.* Develops intermediate level proficiency in key office productivity and information technology tools. Includes these topics: operating systems, graphical user interfaces, word processing, desktop publishing, grammar and style checkers, office presentations, multimedia documents, spreadsheets and advanced applications, business charts, Internet and intranet, e-mail, World Wide Web, search engines, and Web publishing. Requires extensive hands-on laboratory exercises. *1 Cr. Every Semester.*

CIS 295 Topics in Computer Information Systems (A). *Prerequisites: Published prior to registration each semester.* Addresses current topics in the field at an introductory level. Each offering of the course is motivated by the expertise of the instructor and by students' interests. Descriptions and prerequisites are published prior to the registration period for the course. Example topic: information technology hardware and software laboratory. *1-3 Cr.*

CIS 303 Information Technology Hardware and Software (A). *Prerequisites: CIS 202, CSC 209 and MTH 281.* Covers both hardware and software components of computer systems. Includes these topics: basic elements of a computer system, data representation, digital logic, CPU architecture, memory, buses, instruction sets, assembly language, magnetic and optical disks, backup storage, video displays, I/O devices, networks, multi-user and multi-tasking operating systems, process, file, and memory management. *3 Cr. Every Semester.*

CIS 317 Analysis and Logical Design of Information Systems (A). *Prerequisites: CIS 202, CIS 206 and CSC 203.* Studies requirement analysis, system development and modification process. Includes topics such as life cycle phases and the role of systems analyst; organizational style, feasibility and impact of information systems; requirements analysis, sampling and investigating data, interviewing; data flow diagrams, data dictionaries, preparing and writing proposals; prototyping, designing for effective input and output, user interface; software metrics, quality assurance and software package evaluation and acquisition. Requires supervised laboratory sessions. *4 Cr. Fall.*

CIS 404 Multimedia Applications (A). *Prerequisites: CIS 206 and CIS 303.* Studies multimedia systems and applications in the business world. Includes these topics: multimedia applications, hypertext and hypermedia, audio, graphics, images, and full motion video; multimedia-ready personal computers and workstations, storage devices, operating systems and graphical user interfaces; communication and networking requirements, multimedia applications on the Internet; file formats, data compression and streaming audio/video; and multimedia authoring tools. *3 Cr. Spring.*

CIS 419 Computer Networks and Internet Applications (A). *Prerequisites: CIS 206 and CIS 303.* Studies data communication, computer networks, and Internet applications. Includes topics such as data communication, LAN and WAN applications, Internet and intranet, e-mail, FTP and Web applications, distributed systems, standards; communication concepts, media, coding of data, error control, LAN topologies and protocols, bridges, routers and gateways; TCP/IP, client server paradigm; network configuration, performance monitoring, management, security, and reliability. *3 Cr. Fall.*

CIS 422 Physical Design and Implementation With DBMS (A). *Prerequisite: CIS 317.* Covers information systems design and implementation within a database management system environment. Requires students to design and construct a physical system using database software to implement the logical design. Stresses basic knowledge of normalization of data modeling, database methods, database design, and the use of databases in business. *3 Cr. Spring.*

CIS 427 Project Management and Practice (A). *Prerequisites: CIS 317 and CSC 205.* Introduces software development and management of the de-

velopment process. Includes these topics: managing the software life cycle (requirements definition, logical design, physical design, implementation, testing, system integration, maintenance); design techniques (structured, event-driven, object-oriented); implementation; testing and software quality assurance; delivery and user training; metrics for project management and system performance evaluation; management expectations; personnel management, cost analysis and change management; management of behavioral and technical project aspects. *3 Cr. Spring.*

CIS 434 Decision Support and Expert Systems (A). *Prerequisites: CIS 202, CIS 206 and CSC 203.* Covers Decision Support Systems (DSS) and its subsystems. Includes the following topics: DSS overview, modeling and analysis using linear programming, decision tables, trees, AHP, etc., group decision support systems, fundamentals of AI, expert systems, expert system building tools, and validation, knowledge representation. Involves hands-on experience with Excel LP Solver, Scenarios, Goal Seeking, etc., and DSS and ES software tools such as Expert Choice, Prolog or Exsys. *3 Cr. Fall.*

CIS 492 Computer Information Systems Internship (A). *Prerequisites: Junior status, 3.0 or better average in computer science courses, appropriate course work, at least 18 credits towards the major completed prior to starting the internship, and instructor's permission.* Provides an opportunity to apply knowledge from the classroom by working in a professional setting. Also provides a valuable and challenging experience for students who have never worked in such a situation, as well as for professionals furthering their education. Teaches the successful intern how effective professional performance requires integrating substantive knowledge with behavioral skills and proficiency in oral and written communication. Each student is supervised on campus by a computer science faculty member, and at the work site by qualified management personnel. Past projects have involved business programming, requirement analysis, web applications, database design, data communications, and project management. *1-3 Cr. By Arrangement.*

CIS 493 Senior Thesis (A). *Prerequisites: Junior status, 3.0 or better average in computer science courses, appropriate course work, at least 18 credits toward the major completed prior to starting the thesis, and instructor's permission.* Provides students with an opportunity to apply knowledge from the classroom by working in an independent research or development project in an academic setting, which is a valuable and challenging experience for students who are contemplating graduate studies in computer science, to test out their potential for independent study and advanced research. May involve substantial software development, structuring available commercial software/hardware for specific applications, or an empirical case study of the use of technology. By developing a successful thesis, permits students to enrich their knowledge of computer applications, theory, hardware or software, to develop skills in analyzing problems involving current computing technologies, and to make effective oral and written presentations of their accomplishments. Each student is supervised by a Department of Computer Science faculty member. For details, see "The Computer Science Thesis Option" in the Handbook. *3 Cr. By Arrangement.*

CIS 495 Topics in CIS (A). *Prerequisites: Published prior to registration each semester.* As an advanced course, addresses current topics in the field. Each offering of the course is motivated by the expertise of the instructor and by students' interests. Expects students to complete a major research, design, or development project. Descriptions and prerequisites are published prior to the registration period for the course. *3 Cr.*

CIS 499 Independent Study in Information Systems (A). *Prerequisite: Instructor's permission.* Arranged in consultation with the professor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. *1-3 Cr. By Arrangement.*

CSC 104 Computers in the Business World (A). Provides a general introduction to the different uses of computers in business. Includes these topics: computer system concepts, data representation and storage, processor and peripheral hardware, data processing and word processing systems, spreadsheets, report generation, database queries, and management packages. *3 Cr.*

CSC 105 Internet and Web Publishing (A). *Prerequisites: CSC 104 or CIS 106 or GEP 150 or equivalent.* Provides a general introduction to cyberspace. Includes these topics: Internet, e-mail, lists, news groups, Gopher, Telnet, FTP, World Wide Web, net browsers, and creating Web home pages using HTML. *3 Cr.*

CSC 120 Introduction to Computer Science (A). *Prerequisite: MTH 111 or higher.* Provides a breadth-first introduction to computer science. Includes these topics: algorithms and their properties; binary, octal and hexadecimal: arithmetic and conversion; representation of integer and real numbers; elementary computer organization, architecture and programming of a simple machine; digital logic; Java programming: declarations,

assignments, expressions, I/O and loops; operating systems and networks; database, spreadsheet, etc.; ethical, legal and social issues of computing. Preparation for CSC 203. *3 Cr. Every Semester.*

CSC 203 Fundamentals of Computer Science I (A). *Prerequisites: CSC 120 and MTH 122.* Covers fundamental computer science concepts and object-oriented program development in Java. Includes these topics: problem solving, algorithm design and implementation; program testing and documentation; primitive data types, data manipulation, selection, loops; classes, methods, parameters, inheritance; arrays, strings, files, introduction to sorting and searching techniques and other basic algorithms. Requires extensive programming and supervised laboratory sessions. *4 Cr. Every Semester.*

CSC 205 Fundamentals of Computer Science II (A). *Prerequisites: CSC 203 and MTH 281.* Covers an introduction to abstract data structures and their implementation. Includes these topics: program development (interpreting specifications, object-oriented and top-down development, information hiding, structured testing), stacks, queues, linked lists, recursion, trees, searching and sorting algorithms, introduction to analysis of algorithms, program verification, event-driven programming with graphical user interfaces. Requires extensive programming and supervised laboratory sessions *4 Cr. Every Semester.*

CSC 209 UNIX Tools (A). *Prerequisite: CSC 203.* Provides a comprehensive introduction to the UNIX operating system from the programmer's point of view. Includes these topics: basic commands, file system structure, concept of shells, shell features (pipes, redirection, etc.), access control, process control, scripting, UNIX tools (sed, grep, make, etc.). Requires extensive hands-on laboratory exercises and shell-script programming. *1 Cr. Every Semester.*

CSC 212 Programming in Visual Basic (A). *Prerequisite: MTH 111.* Provides a general introduction to computer programming and applications for non majors using the VISUAL BASIC language. Includes these topics: computer terminology, programming concepts, language features, and algorithm design. Introduces a survey of computer applications using the following programming techniques: structured design concepts, decisions, loops, functions, subroutines, arrays, and files. Requires extensive programming. *3 Cr.*

CSC 295 Topics in Computer Science (A). *Prerequisite: Published prior to registration each semester.* Addresses current topics in the field at an introductory level. Each offering of the course is motivated by the expertise of the instructor and by students' interests. Descriptions and prerequisites are published prior to the registration period for the course. Example topic: Windows NT. *1-3 Cr.*

CSC 303 Digital Logic and Computer Design (A). *Prerequisite: MTH 281.* Provides an introduction to digital logic and design of computers. Includes these topics: number systems, Boolean algebra and logic gates, simplification of Boolean functions, combinational and sequential logic design, registers, counters, memory units, and ALU. Includes hands-on experience with hardware circuit components. *3 Cr. Every Semester.*

CSC 311 Computer Organization and Software Interface (A). *Prerequisites: CSC 205 and CSC 209.* Covers basic hardware organization of digital computers and software interface at the assembly and C programming levels. Includes the following topics: Processor and memory organization, fetch-execute-decode cycle, data representation of integer and floating point numbers, computer arithmetic, assembly language programming (instruction encoding, addressing modes, control flow logic, subroutines, linking and loading), C programming (program development, modularization, I/O concepts, library function calls, programming environment). Requires extensive programming and supervised laboratory sessions. *4 Cr. Every Semester.*

CSC 356 Life in the Digital Age (A,I,W). Studies the impact of new technologies on a global society. Includes the changing nature of privacy and growing use of government surveillance, ie. national ID cards and RFID tracking. Also considers the Internet's effect on societal communication and differences in gender communication patterns, issues of freedom of expression and censorship, the influence of technology in the workplace and at home, and other relevant topics. *3 Cr.*

CSC 401 Programming Languages (A). *Prerequisite: CSC 311.* Studies the concepts of various programming languages. Includes these topics: history of languages, design principles, formal syntax and semantics, implementation: compilation and interpretation, comparative study of features in various languages considering criteria such as binding, scope, type conversion, data abstraction, parameter passing techniques, exceptions and I/O. Covers various programming paradigms such as procedural, object-oriented, functional, logic and scripting. Requires extensive programming. *3 Cr. Every Semester.*

CSC 406 Algorithms and Data Structures (A). *Prerequisites: CSC 205 and MTH 481.* Covers design and analysis of data structures and associ-

ated algorithms using object-oriented methods. Includes these topics: complexity measures, pre-and post-conditions, programming to interfaces, union-find sets, hashing, trees (AVL, splay, B-Trees), graphs, recursion, algorithm design strategies and NP-completeness. Extensive programming. *3 Cr. Every Semester.*

CSC 411 Computer Architecture (A). *Prerequisites: CSC 303 and CSC 311.* Covers design and organization of digital computers. Includes these topics: digital logic and circuit design, data representation, computer history, performance evaluation, CISC/RISC architectures, registers, memories and memory management, CPU and ALU architectures, instruction sets, busses and I/O systems, interrupt structure, microprogramming and control unit design. Covers additional topics such as virtual machines, parallelism and pipelining. *3 Cr. Every Semester.*

CSC 412 Operating Systems (A). *Prerequisite: CSC 311.* Covers basic principles of operating systems. Includes these topics: OS structures and design principles, concurrent processes and programming, threads, CPU scheduling, memory management and virtual memory, process synchronization and deadlock, file systems, mass-storage structure, I/O systems, and case study of UNIX/LINUX operating system. Requires extensive programming. *3 Cr. Spring.*

CSC 419 Computer Networks (A). *Prerequisites: CSC 303 and CSC 311.* Provides a comprehensive study of the field of computer communications, local area networks, and internetworking. Includes these topics: the OSI and TCP/IP models, protocols, topologies, data communication issues, error detection and correction, local area networks, network hardware, Ethernet and wireless technologies, WAN, packet-switching, routing, datagrams, Internet addressing, home networking and security. Includes hands-on experience with network hardware and software. *3 Cr. Spring.*

CSC 421 Computer and Network Security (A). *Prerequisites: CSC 205 and CSC 209.* Studies concepts, techniques, and tools in computer and network security. Includes these topics: security, privacy, information assurance, threats, user authentication and access control; UNIX and Windows examples; logs and intrusion detection; cryptography, public-key and private-key systems, Kerberos, IP security, firewalls, Web and database access control and security issues; ethical issues. Includes hands-on experience with security hardware and software. *3 Cr. Fall.*

CSC 422 Relational Data Base Design (A). *Prerequisite: CSC 205.* Provides a study of the theory and practice of the relational approach to database design. Includes these topics: DBMS vs. a traditional file processing, relational algebra, normalization, lossless and/or dependency preserving decomposition, query languages such as SQL and a language that is available on the system, query optimization, integrity and security, and database project design. Requires extensive programming. *3 Cr. Fall.*

CSC 427 Software Systems Engineering (A). *Prerequisite: CSC 311.* Provides an introduction to software engineering methodologies and programming-in-the-large. Includes these topics: life-cycle models, development standards, project organization, estimation techniques, requirements modeling, specification techniques, object-oriented and structured approaches to software design, implementation issues, testing, verification and validation, maintenance and documentation. Requires students to work in teams developing a large-scale software product. Develops technical communication and writing skills. Requires extensive programming. *3 Cr. Fall.*

CSC 429 Object-Oriented Programming (A). *Prerequisite: CSC 205.* Provides an introduction to basic concepts in object-oriented programming (OOP) and how to apply OOP techniques using an appropriate OOP language such as Java or C++. Includes these topics: the OOP programming paradigm including analysis and design; a survey of related languages; data hiding and encapsulation; inheritance; and polymorphism. Requires implementation of these concepts using appropriate programming language constructs and extensive programming. *3 Cr. Spring.*

CSC 434 Artificial Intelligence (A). *Prerequisite: CSC 205.* Provides an introduction to artificial intelligence and its languages. Includes these topics: history and state of the art in AI; programming techniques in the languages LISP and PROLOG; fundamental methods in AI including heuristic search, knowledge representation using predicate logic, and production systems; classic basic problems involving games, graphs, theorem-proving, symbolic algebra, expert systems, natural language, etc. Requires extensive programming. *3 Cr. Spring.*

CSC 442 Electronic Commerce Technology (A). *Prerequisites: CSC 205 and CSC 209.* Surveys electronic commerce technologies and realities. Studies defining tools of e-business to understand the manner in which users, tools, needs and opportunities interact. Includes these topics: the infrastructure of e-commerce and the design and implementation of e-business portals using network and database technologies, data/Web

mining and security/encryption techniques for finding and negotiating with trading partners to execute electronic transactions. *3 Cr. Fall.*

CSC 444 Introduction to Parallel Computing (A). *Prerequisites: CSC 406 and MTH 481.* Deals with design and analysis of parallel algorithms. Includes these topics: parallel models of computation, measures of complexity, parallel algorithms for selection, searching, sorting, merging, matrix algorithms, transitive closure, connected components, shortest path, minimum spanning tree and routing algorithms. Provides hands-on experience in a parallel programming environment. *3 Cr.*

CSC 483 Theory of Computation (A). *Prerequisites: CSC 203 and MTH 481.* Provides a study of formal languages and theory of automata with an emphasis on Church's thesis and the "algorithm = machine" point of view. Includes these topics: regular expressions and context-free languages, finite and pushdown automata, Turing machines, computability, undecidability, and complexity of problems. *3 Cr. Spring.*

CSC 486 Junior/Senior Seminar (A). *Prerequisite: CSC 205; junior or senior status and computer science majors only.* Provides an overall view of the professional field of computing, emphasizing development of communication skills for the profession. Includes these topics: detailed history of computing technology, social effects of computing, ethics in the field, professional literature, organizations and related activities, current industrial, social, legal governmental and technical developments, and career opportunities. Requires extensive reading and writing, both technical and non-technical, as well as library research, and prepared group discussions and oral presentations. *3 Cr. Every Semester.*

CSC 492 Computer Science Internship (A). *Prerequisites: Junior status, 3.0 or better average in computer science courses, appropriate course work, at least 18 credits towards the major completed prior to starting the internship, and instructor's permission.* Provides an opportunity to apply knowledge from the classroom by working in a professional setting. Also provides a valuable and challenging experience for students who have never worked in such a situation, as well as for professionals furthering their education. Teaches the successful intern how effective professional performance requires integrating substantive knowledge with behavioral skills and proficiency in oral and written communication. Each student is supervised on campus by a computer science faculty member, and at the work site by qualified management personnel. Past projects have involved software engineering, graphics, database design, data communications, and process control. *1-3 Cr. By Arrangement.*

CSC 493 Senior Thesis (A). *Prerequisites: Junior status, 3.0 or better average in computer science courses, appropriate course work, at least 18 credits towards the major completed prior to starting the thesis, and instructor's permission.* Provides students with an opportunity to apply knowledge from the classroom by working in an independent research or development project in an academic setting, which is a valuable and challenging experience for students who are contemplating graduate studies in computer science, to test out their potential for independent study and advanced research. May involve substantial software or hardware development, structuring available commercial software/hardware for specific applications, or theoretical analysis of computational schemes. By developing a successful thesis, permits students to enrich their knowledge of computer applications, theory, hardware or software, to develop skills in analyzing problems involving current computing technologies, and to make effective oral and written presentations of their accomplishments. Each student is supervised by a Department of Computer Science faculty member. For details, see "The Computer Science Thesis Option" in the Handbook. *3 Cr. By Arrangement.*

CSC 495 Topics in Computer Science (A). *Prerequisite: Published prior to registration each semester.* As an advanced course, addresses current topics in the field. Each offering is motivated by the expertise of the instructor and students' interests. Requires students to complete a major research, design, or development project. Descriptions and prerequisites are published prior to the registration period for the course. Past topics include: networking, human factors, computational linguistics, advanced architecture, software engineering, logic programming, program validation, object-oriented programming and parallel algorithms. *3 Cr.*

CSC 499 Independent Study in Computer Science (A). *Prerequisite: Instructor's permission.* Arranged in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. *1-3 Cr. By Arrangement.*

Department of Counselor Education

184 Albert W. Brown Building
(585) 395-2258

Chair and Associate Professor: Susan Rachael Seem, PhD, LMHC, NCC, ACS, Pennsylvania State University; *Associate Professor:* Thomas J. Hernandez, EdD, LMHC, University of Rochester; *Assistant Professors:* Patricia Goodspeed, EdD, LMHC, NCC, University of Rochester; Leslie A. McCulloch, PhD, LMHC, NCC, ACS, University of Rochester; Summer Reiner, PhD, LMHC, NCC, University of Connecticut; Robert Dobmeier, PhD, LMHC, CRC, University at Buffalo.

The department does not offer an undergraduate academic major. A few courses, however, are offered for the undergraduate student. For information on graduate degrees in counselor education, refer to the *2007-2009 Graduate Studies Catalog*.

Counselor Education Courses

EDC 201 Life/Career Planning for Adults (B). For adults desiring to determine future goals. Allows students to assess their ideal goals, interests, abilities and skills through class discussion, assigned readings and papers. Allows students to decide on future directions. *1 Cr.*

EDC 202 Career Management (A). Develops an understanding that career planning and the development process is not a one-time event, but an ongoing process that requires personal attention and involvement. Prepares students for transition from college to professional workplace, focusing on career goals and developing the skills to produce job-search correspondence. *1 Cr.*

EDC 301 Introduction to Counseling (B). Explores the philosophical basis of counseling. Requires students to identify and understand five counseling theories and five interpersonal skills, and to demonstrate basic competence in interpersonal relations. *3 Cr.*

EDC 302 Achieving Helping Relations in College Residence Halls (B). Explores the role and responsibilities of the college resident assistant. Allows students to develop and practice the skills of assertiveness, conflict management, empathic listening, helping, self-awareness and self-disclosure. Allows these skills to be applied to the college environment and to current issues facing college resident assistants. *3 Cr. Every Semester.*

Department of Criminal Justice

169 Albert W. Brown Building
(585) 395-2665

Chair and Associate Professor: Korni Swaroop Kumar, PhD, Temple University-Philadelphia; *Assistant Professors:* Ann Bunch, PhD, University of Chicago; Kimberley A. Cattat, PhD, University of Buffalo; James Ross, JD, University of Buffalo; Yumin R. Wang, PhD, University of Albany; *Visiting Assistant Professor:* Addrain Conyers, PhD, Southern Illinois University at Carbondale; Bivette M. Stodghill, PhD, University of Albany; Moon Sun Kim, PhD, University of Albany; *Associate Professor Emeritus:* Larry R. Bassi, Richard G. Frey, Roger B. McNally.

The criminal justice program is for students interested in studying the causes, prevention and control of crime, as well as the theories and policies relative to the structure and operation of various police, security, correctional and judicial organizations. The department's curricular and programmatic philosophy is primarily professional, though students are exposed to a wide array of intellectual disciplines across the College.

The criminal justice major prepares students for criminal justice careers in professional justice agencies. Careers in criminal justice can be categorized by a variety of organizations: state and local police; correctional organizations for adult and juveniles (i.e. those in probation, after care, related institutions, and public and nonprofit residential care); federal law enforcement/security organizations; private security; legal and judicial organizations.

SUNY Brockport criminal justice graduates have taken positions with agencies such as the New York City Police, New York State Police, State Corrections Department, Division for Youth, Monroe County Public Defender's Office, Victim Assistance Unit, court systems, and a variety of criminal justice agencies outside New York. Many serve in federal agencies, such as the State Department, Secret Service, Drug Enforcement Agency, FBI, US Customs, Immigration and Naturalization, Department of Defense, and Federal Probation and Parole. Others are employed in private security with companies such as Eastman Kodak Company, Xerox Corporation and Pinkerton. Many graduates work for human service agencies such as Hillside Children's Center, Lifetime Assistance, Inc. and the Big Brother/Big Sister Program.

Other SUNY Brockport graduates have continued their education in law, criminal justice, counseling, and public administration, with such institutions as SUNY Brockport, SUNY Buffalo, SUNY Albany, Adelphi University, John Jay College, Michigan State University, University of Maryland, Rutgers University and Albany Law School.

Special Affiliations
A chapter of Alphi Phi Sigma (National Criminal Justice Honor Society) and a Criminal Justice Student Association are active at SUNY Brockport. The department also honors its most intellectual students with an invitation to the "Order of Cicero."

Students are encouraged to study criminal justice and comparative jurisprudence at Brunel University in Great Britain, study during summer or spring in Ireland at the Waterford Institute, or participate in the College's Washington, DC, and Albany Semester programs, British internships, or other local internship placements.

Criminal Justice
Criminal justice is both a professional and a liberal arts program. Specifically, the criminal justice major consists of three components: non-criminal justice courses (corequisites), many in related liberal arts disciplines, which can be taken during the first two years of college; criminal justice proficiency courses; and criminal justice electives, which can be grouped into specialty areas or not, at the student's option.

Students must earn a minimum of 36 credits of course work in criminal justice, 18 of which must be taken at SUNY Brockport. The criminal justice core consists of an introductory course in criminal justice; process courses in police, adjudication, corrections, and juvenile justice; criminology; research methods; and criminal law. Specialty areas of elective criminal justice

courses may be selected focusing on police, corrections, security administration, international criminal justice, and legal studies.

To prepare for the major, freshman and sophomore students are urged to take Introduction to Sociology, Introduction to Psychology, American Political Systems, an introductory course in computers, and courses that will enhance their writing skills. The more advanced corequisite courses will be taken during the junior and senior years. Note: An introductory course in statistics is a prerequisite to the required criminal justice course, CRJ 471 Research Methods. Many criminal justice majors transfer with associate's degrees from community colleges in New York state.

Admission to the Major

Students seeking acceptance into the criminal justice major must meet the following criteria:

1. Completion of an associate's degree, or 54 credits toward a baccalaureate degree at another school, or 24 credits at SUNY Brockport; and
2. A cumulative grade point average of 2.5 or better.

Application by SUNY Brockport students for the major will ordinarily be made during the fall semester of the sophomore year.

Requirements		**Credits**
The required courses for the degree are:		
I. General Education Program courses required of all bachelor of science students.		
II. Corequisite Courses (21 credits)		
SOC 100	Introduction to Sociology	3
PSH 110	General Psychology	
OR		
PSH 112	General Psychology with Lab	3
PLS 113	American Political Systems	3
An approved ethnic minorities course		3
An approved statistics course		3
Two upper-division (300/400 level) courses, one of each in two of the following three disciplines: sociology, psychology or political science		6
III. Criminal Justice Core Proficiencies (24 credits)		
CRJ 101	Introduction to Criminal Justice	3
CRJ 203	The Police Process	3
CRJ 207	The Corrections Process	3
CRJ 305	The Adjudication Process	
OR		
PLS 320	Law and Legal Process	3
CRJ 311	Criminal Law	3
CRJ 343	Juvenile Justice Process	3
CRJ 471	Research Methods	
OR		
CRJ 494	Criminology	3

IV. Criminal Justice electives and/or International Criminal Justice Educational Experience (12 credits).

At least four courses must be completed from a wide variety of electives. These may include courses selected with the advice and approval of the student's advisor in specialty areas of police, corrections, security administration, international criminal justice, or legal studies. The department encourages students to enroll in one of its three international programs in fulfillment of these criteria.

Criminal Justice Minor

An academic minor in criminal justice requires students to complete at least 18 credits in the field as specified:

CRJ 101	Introduction to Criminal Justice	3
CRJ 203	The Police Process	
OR		
CRJ 207	The Correction Process	3
CRJ 305	The Adjudication Process	3

The remaining nine credits are selected from the department's course offerings with the advice and approval of the student's advisor.

Criminal Justice Courses

CRJ 101 Introduction to Criminal Justice (A). Covers the nature, scope and impact of crime in the US; independent and interdependent operations and procedures of police, courts and corrections; and introductory theories of crime and delinquency. *3 Cr. Every Semester.*

CRJ 203 Police Process (A). Covers the roles of law enforcement agencies at the local, state and federal levels; interrelationships with other criminal justice agencies; and selected law enforcement problems. *3 Cr. Fall.*

CRJ 207 The Corrections Process (A). Covers the history and evolution of corrections; the social organization of prisons; differences between adult and juvenile correction; and probation and parole practices and alternatives to incarceration. *3 Cr. Spring.*

CRJ 304 Investigations (B). Provides a comprehensive examination of investigations relative to both public and private modes, including most major felony processes and relevant civil actions. Focuses on the fundamentals of the investigative process and the range of skills necessary for successful performance and management of investigations, including evidence gathering and analysis, witness assessment, field techniques and linkage between investigative and prosecutorial agencies. *3 Cr.*

CRJ 305 Adjudication Process (A). *Prerequisite: CRJ 101.* Examines the organization and functions of the courts; pre- and post-trial motions and procedures; and the role of prosecutorial and defensive agencies. *3 Cr. Every Semester.*

CRJ 311 Criminal Law (A). *Prerequisite: CRJ 305 or PLS 320.* Covers the historical development of criminal law in the US; the parties to crime, including principals/accessories; and the elements of crimes against persons and property, and moral offenses and defenses to such crimes. *3 Cr. Every Semester.*

CRJ 313 Constitutional Criminal Procedure (A). *Prerequisite: CRJ 305 or PLS 320 or instructor's permission.* Covers the application of the Bill of Rights; rules governing evidence; and the legal concepts governing arrest, search and seizure, and interrogations and confessions. *3 Cr.*

CRJ 321 Crime Patterns (B). *Prerequisite: Six credits of CRJ courses or instructor's permission.* Covers the extent and nature of crimes against property and person, methods of crime commission, and prevention and repression of crime. *3 Cr.*

CRJ 323 White Collar Crime (A). Provides an historical and contemporary look at white collar/occupational crime in the United States. Analyzes the concept of occupational crime, counting and recording occupational crimes and criminals, explanations of occupational criminality, organizational occupational crime, state authority occupational crime, professional occupational crime, individual occupational crime, and sanctioning, social control, and occupational crime. *3 Cr.*

CRJ 331 Community-Based Corrections (A). *Prerequisite: CRJ 207 or instructor's permission.* Explores the evolution of community-based corrections, the interrelationship between community based correction programs and other criminal justice agencies, and the role and involvement of the public in community-based corrections. *3 Cr.*

CRJ 343 Juvenile Justice Process (A). *Prerequisite: Six credits of CRJ courses or instructor's permission.* Covers the historical development of juvenile justice in the US, jurisdiction issues, the adjudication process, role of the police and community agencies, and abuses in the system. *3 Cr. Every Semester.*

CRJ 371 Introduction to Forensic Science (A). Provides a study of the work of the crime lab and the medical examiner. Examines methods of analysis of items commonly found at crime scenes such as: fingerprints, blood, illegal drugs, hairs, fibers, arson residues, bullets, etc. Covers procedures for

processing the crime scene and safeguarding the evidence. *3 Cr. Fall.*

CRJ 375 Forensic Law (B). Serves as an interdisciplinary course covering law, criminal justice, science and technological issues in the evidentiary arena. Provides broad-based assessment of scientific evidence as it relates to litigation theory, tactics and evidentiary proof. *3 Cr.*

CRJ 431 Crime Prevention and Control (A). *Prerequisites: Six credits of criminal justice courses or instructor's permission.* CRJ Explores crime problems and the role of the criminal justice system in crime prevention, its funding, planning and evaluation. *3 Cr. Fall.*

CRJ 434 Security Administration (B). Provides a comprehensive examination of the nature and problems of private and public security administration. Focuses on the issues of administration and the solutions, especially security technology necessary for successful management. *3 Cr. Spring.*

CRJ 436 Computer Security (B). Examines the nature, problems, and programs to protect organizational information, especially electronically processed data and computer equipment. *3 Cr.*

CRJ 451 International Criminal Justice Systems (A). *Prerequisite: CRJ 101; corequisite: SOC 100.* Compares and contrasts the criminal justice system of the United States with the systems of other countries. *3 Cr.*

CRJ 465 Terrorism and the Criminal Justice System (A). Examines current terrorism, its origins and ideological bases, with particular attention to its relation to political institutions and the criminal justice response. *3 Cr.*

CRJ 471 Research Methods in Criminal Justice (A). *Prerequisites: Junior or senior status and successful completion of any one of the following courses: SOC 200, PSH 202, POL 300, MTH 243 or ECN 204.* Familiarizes criminal justice majors with the development of data-gathering techniques, including scaling, questionnaire construction, sampling procedures, interviewing, secondary data analysis, and techniques of data processing using micro- and minicomputers. Also examines linear casual models as a tool in theory and research, research designs, central tendency, variation, and statistics for nominal and ordinal measures. *3 Cr. Every Semester.*

CRJ 477 Family Violence (A). *Prerequisite: SOC 100 and PSY 112.* Focuses on the dynamics of family violence and the legal and social system response to the phenomenon. Explores and analyzes in-depth the scope and theoretical explanations of the issues of the various forms of family violence, e.g. spousal abuse, marital rape, elder abuse. *3 Cr.*

CRJ 479 Victimology (A,W). *Cross-listed as WMS 479. Prerequisite: Junior or senior status.* Develops an understanding of crime victimization, both direct and indirect. Focuses on street crime, social and political oppression, victimization of women, and victims of corporate deviance. Emphasizes theory and policy analysis. *3 Cr.*

CRJ 481 Women and the Criminal Justice System (A,W). *Cross-listed as WMS 481. Prerequisite: Junior or senior status.* Examines women's relationships with crime and the criminal justice system. Specifically provides a study of women and crime, victimization and occupational obstacles and opportunities. Develops students' understanding of how social, political and economic conditions affect these problems. *3 Cr.*

CRJ 485 Issues in Juvenile Justice (A,I). *Prerequisite: CRJ 343 or instructor's permission.* Provides an in-depth analysis of 10-12 selected topics germane to the juvenile justice system. Includes topics such as child abuse and domestic violence, alternatives for the status offender, ethical issues, children's rights, right to treatment and right to refuse treatment, the politics of juvenile justice, and the court as a socio-legal institution. *3 Cr.*

CRJ 489 Problems in Policing (A). *Prerequisite: CRJ 203* . Discusses specific problems of law enforcement and policing in contemporary American society. Emphasizes the development, nature and function of law enforcement as it relates to criminal justice. Covers topical issues and problems such as ethics, corruption, deadly force and civil liabilities. *3 Cr.*

CRJ 490 Internship in Criminal Justice (B). *Prerequisite: Internship coordinator's permission.* Enables students to learn the basic operations of a criminal justice agency and participate in agency activity. Involves group discussion, weekly log, and final report. *1-6 Cr. Every Semester.*

CRJ 491 Selected Topics in Criminal Justice (B). Enables students to develop an understanding of one topic concerning criminal justice, and learn to conduct research and analyze research findings on a given topic. May be repeated with chair's permission. *3 Cr.*

CRJ 493 Seminar in Criminal Justice (A). Allows students to gain an understanding of a criminal justice issue. Utilizes research skills to prepare and present research projects, and defend findings to an audience of critical judges. May be repeated with chair's permission. *3 Cr.*

CRJ 494 Criminology (A). *Prerequisite: CRJ 101, corequisite: SOC 100.* Provides a review and critical analysis of the major criminological theories including the classical school; biological school; and psychological, sociological, and psychoanalytic orientations, including economic determinism. Considers various forms of criminality, as well as studies dealing with the frequency of crime in different places at different times. *3 Cr. Every Semester.*

CRJ 495 Law and Evidence (B). Provides a comprehensive review of evidentiary principles, both common and statutory law and their impact on both civil and criminal process and how these principles impact the conduct of trial and litigation. Covers real and physical evidence, demonstrative substitution, hearsay and firsthand evidence, witness scope and qualification, as well as privilege principles. Interprets both federal and state rules. *3 Cr.*

CRJ 499 Independent Studies in Criminal Justice (B). *Prerequisite: Instructor's permission.* To be defined in consultation with the instructor-sponsor and in accordance with the procedures of the Office of Academic Advisement prior to registration. May be repeated with chair's permission. *1-6 Cr. Every Semester.*

OAP 408 Criminal Justice Overseas Academic Program (A). *Prerequisites: Junior or senior status and chair's permission.* Occurs at Brunel University, Uxbridge, England. Studies these major areas: the history and sociology of British culture, the English criminal justice system, and British criminal law. Includes a program of field visitations to British criminal justice agencies. Taught by full-time SUNY Brockport faculty and the faculty of Brunel University. *1-15 Cr.*

OAP 413 Overseas Internships (A). *Prerequisites: Junior status, with a minimum GPA of 2.5 and department coordinator's permission.* Occurs in a British criminal justice agency such as: British Parliament, West Yorkshire Metropolitan Police, or Leicester Probation Department during either semester or summer. *1-15 Cr. Every Semester.*

OAP 414 Waterford Overseas Program (A). Entails study at the Waterford Institute of Technology within the division of law and legal studies. Covers areas of inquiry such as Irish criminal law, Irish penology and the jurisprudence of Ireland. Allows students to tour various justice facilities common to the Irish justice system. Waterford is an extraordinary seaport and ocean community that is located on Ireland's east coast with easy access to England and the rest of Europe. *1-15 Cr.*

OAP 474 OAP Maynooth, Ireland (A). Direct enrolled study abroad program for a semester of study at the National University of Ireland, Maynooth, Ireland. *1-15 Cr.*

Department of Dance

Hartwell Hall
(585) 395-2153

Chair and Graduate Program Director and Professor: Darwin Prioleau, EdD, University of Massachusetts at Amherst; *Professor:* Jacqueline Davis, MA, Ohio State University; *Graduate Program MA and MA Pre K-12 Advisor and Associate Professor:* Juanita Suarez, PhD, Texas Woman's University; *Associate Professors:* James Hansen, MFA, University of Illinois at Urbana-Champaign; Diane McGhee, Arts for Children Director, MS, James Madison University; Clyde W. Morgan, BFA, Cleveland State University; *Graduate Program MFA Advisor and Assistant Professor:* Maura Keefe, Ph.D. University of California, Riverside; *Assistant Professors:* Anne Burnidge, MFA, Ohio State University; Suzanne Oliver, PhD, University of Illinois at Urbana-Champaign; *Visiting Professor (Guest Artist):* Bill Evans, MFA, University of Utah; *Professional Employees:* Sandra Cain, MA, State University of Iowa; Gregory Ketchum, BS, SUNY Brockport; Khalid Saleem; Christian Tucker, MA, Ball State University.

SUNY Brockport is an accredited institutional member of the National Association of Schools of Dance, and offers the most broadly based dance degree programs in the SUNY system.

Undergraduates with a strong foundation of dance training are able to participate in the program by auditioning to enroll as dance minors or majors in the BA, BS or BFA programs. Highly skilled dancers or choreographers who have already earned undergraduate degrees in dance can audition for acceptance in the MA and MFA programs. Additionally, the department serves a large number of students with varying backgrounds in dance through courses that fulfill General Education requirements.

SUNY Brockport is recognized for its strong liberal arts education. Strengths of the program include professional-level technical instruction and numerous opportunities to create choreography for presentation in both formal and informal departmental productions. Additionally, students regularly perform in original and repertory works created by full-time faculty and guest artists. These experiences prepare students for a wide range of professional careers in dance or to continue their educations in graduate school. Through the active permanent faculty, guest artists, company residencies, DANSCORE and the African dance and drum ensemble Sankofa, students are able to make important connections to the professional dance world and explore both traditional and cutting-edge aesthetics. These creative opportunities combined with a range of courses in theory, history, production and technology provide a broad understanding of dance as a performing art.

Students also have the opportunity to study abroad. The Office of International Education provides information about dance programs in Jamaica, Ghana, England, Australia and other countries.

Programs in Dance

BFA in Dance
BA or BS in Dance (often coupled with a second major)
BA or BS with a major in arts for children and specialty in dance
Minor in Dance
MA in Dance
MFA in Dance
MA with PreK–12 dance teacher certification

Required Auditions

All students wishing to major or minor in dance must pass a department audition and then complete DNS 204 and 205, prerequisites for other required courses in the dance major. DNS 204 and 205 are offered only in the fall. Three auditions are held each year; check the department Web site at **www.brockport.edu/dance** or contact the Department of Dance at **(585) 395-2153** for audition dates and information.

Many dance courses are open to students in all majors—no audition is required for this option.

Students may begin the dance major or minor as freshmen, sophomores or juniors. As a rule, BA/BS dance major and dance minor requirements can be completed during two academic years. The BA/BS dance major requires 35 (out of 120) credits; up to 19 additional elective dance credits may be taken to meet degree requirements. Many dance majors also complete requirements for minors or a second major in another discipline.

The BFA dance major requires 85 specified credits in dance (out of 120) and emphasizes professional preparation for performance-related careers. It is a rigorous program that requires a high level of proficiency and commitment. Entering freshmen must complete at least one semester of BA/BS study before application for the BFA audition is permitted. Transfer students can be reviewed for acceptance into the BFA program during the departmental entrance audition.

Note to transfer students: Transfer credits in dance are usually accepted as dance electives. A maximum of 18 credits may be transferred into the BA/BS dance major and 42 into the BFA. Transfer students may need 3-4 years to complete the BFA.

Careful planning of course sequences and consultation with faculty advisors is essential for all programs. Assignment to appropriate dance technique levels is based on a placement examination given each semester.

Major Requirements
BA/BS in Dance

Dance Technique (12 credits)		**Credits**
DNS 204	Dance Conditioning Lab	2
DNS 205	Dance Technique I	3
	AND a minimum of seven credits from the following:	
DNS 245	Dance Technique II[3]	3
DNS 345	Dance Technique III[3]	3
DNS 445	Dance Technique IV[3]	3
DNS 253	Beginning Ballet[1]	1-4
DNS 353	Intermediate Ballet[1]	1-4
DNS 453	Advanced Ballet[1]	1-4
DNS 330	African Dance II	3
DNS 433	African Dance III	3
DNS 454	Dance Styles[2]	1-4

[1]Repeatable course numbers for ballet.
[2]A repeatable course number for musical theater, jazz, tap and special topics.
[3]A repeatable course number for dance technique.

Choreography: (5 credits)		**Credits**
DNS 208	Dance Production Practicum	0
DNS 364	Dance Improvisation	2
DNS 306	Beginning Dance Composition	3

Theory: (12 credits)		
DNS 206	20th-century Dance: Issues and Styles	3
	OR	
DNS 316	History and Development of Dance	
MUS 300	Music for Dance	
MUS 420	Music Literature for Dance	3
DNS 305	Kinesiology[1]	3
	OR	
DNS 375	Introduction to Laban Movement Analysis	

[1]BIO 221 is a prerequisite for DNS 305 and can be used as a Knowledge Area requirement.

Electives: (6 credits)

Upper-division dance electives selected by advisement	6
Total:	**35**

Grades of "C" or better are required in all 35 dance major credits.

Bachelor of Fine Arts in Dance (BFA)

Dance Technique (29 credits)

Must complete at least two semesters of DNS 445 Dance Technique IV and two semesters advanced-level study in one or two other forms.

		Credits
DNS 204	Dance Conditioning Lab	2
DNS 205	Dance Technique I	3
	AND 24 credits selected from the following:	
DNS 245	Dance Technique II[3]	3
DNS 345	Dance Technique III[3]	3
DNS 445	Dance Technique IV[3]	3
DNS 253	Beginning Ballet[1]	1-4
DNS 353	Intermediate Ballet[1]	1-4
DNS 453	Advanced Ballet[1]	1-4
DNS 330	African Dance II	3
DNS 433	African Dance III	3
DNS 454	Dance Styles[2]	1-4

[1]Repeatable course numbers for ballet.
[2]A repeatable course number for musical theater, jazz, tap and special topics.
[3]A repeatable course number for dance technique.

Choreography and Performance (20 credits)

DNS 364	Dance Improvisation	2
DNS 306	Beginning Dance Composition	3
DNS 430	Intermediate Dance Composition	3
DNS 424	Dance Repertory and Literature I	3
DNS 425	Dance Repertory and Literature II	3
DNS 427	Dance Performance Techniques	3
DNS 457	DANSCORE I-III	3
	OR	
DNS 489-491	Sankofa I-III	

Music for Dance: (6 credits)

MUS 300	Music for Dance	3
MUS 420	Music Literature for Dance	3

History and Movement Theory: (15 credits)

DNS 206	20th-century Dance: Issues and Styles	3
DNS 316	History and Development of Dance	3
DNS 375	Introduction to Laban Movement Analysis	3
DNS 305	Kinesiology[1]	3
DNS 315	Dynamic Balance	3
	OR	

DNS 452	Somatics	
	OR	
DNS 480	Dance Science and Injury Prevention	

[1]BIO 221 is a prerequisite for DNS 305 and can be used as a Knowledge Area requirement.

Dance Production: (3 credits)

DNS 207	Dance Production	3
DNS 208	Dance Production Practicum	0

Seminar: (3 credits)

DNS 495	Senior Seminar in Dance	3

Electives: (9 credits)	9
Any upper-division dance courses except Dance Technique III and Dance Technique IV.	
Total:	**85**

Grades of "C" or better are required in all 85 dance major credits.

The BFA in dance requires completion of all General Education credits in addition to the 85-credit dance major. A student who meets the General Education requirements with fewer than 35 credits may select any non-dance electives. Except for one Fine Arts Knowledge Area course, no DNS courses may be used. This policy is intended to insure breadth of experience within the BFA. A student who takes additional dance courses will graduate with more than the required minimum 120 credits.

Minor in Dance

Students may declare a dance minor. An audition is required for entrance into the dance minor program, and courses must include DNS 205 and one additional semester of dance technique. The minor is 18 credits in dance selected with departmental advisement. Contact the department for information about the audition.

Interdisciplinary Arts for Children: Dance Specialty

Students seeking an interdisciplinary major in arts for children with a specialty in dance are required to complete a 48-credit program consisting of: (1) two interdisciplinary courses, IAC 280 Introduction to Related Arts for Children, and IAC 491 Seminar in Arts for Children; (2) a dance specialty of 21 credits; and (3) a 21-credit block consisting of two courses in each of the other three arts and one approved elective. Students wishing to major in Arts for Children with a dance specialty should contact the Department of Dance for information about the required entrance audition. A minimum grade of "C" must be maintained in all required courses.

For detailed information and a comprehensive listing of courses required in this specialty area, refer to the section Arts for Children-Interdisciplinary Major in this catalog.

Dance Courses

DNS 102 Traditional Dance Jazz (A,P). Studies selected traditional jazz dance forms and development of skills through studio experience. Covers artistic and educational uses of traditional jazz dances. Requires reading along with experiencing the recreational value of the traditional jazz dance styles. *3 Cr.*

DNS 103 Traditional Dance Tap (A,P). Studies selected traditional tap dance forms and development of skills through studio experience. Covers the artistic and educational uses of traditional tap dances. Reading along with experiencing the recreational value of the traditional tap dance styles. *3 Cr.*

DNS 104 Traditional Dance Ballet (A,P). Studies selected traditional ballet dance forms and development of skills through studio experience. Covers artistic and educational uses of traditional ballet. Requires reading along with experiencing the recreational value of the traditional ballet dance styles. *3 Cr.*

DNS 105 Traditional Dance Afro-Caribbean (A,P). Studies selected traditional Afro-Caribbean dance forms and development of skills through studio experience. Covers the artistic and educational uses of traditional Afro-Caribbean dances. Requires reading along with experiencing the recreational value of the traditional Afro-Caribbean dance styles. *3 Cr.*

DNS 106 Traditional Dance African (A,P). Studies selected traditional African dance forms and development of skills through studio experience. Covers the artistic and educational uses of traditional African dances. Requires reading, along with experiencing the recreational value of the traditional African dance styles. *3 Cr.*

DNS 115 Introduction to Dance (A,P). Provides an introduction to the study of dance as an art form and its relation to other art forms, and considers the role of dance in history and society. Includes studio classes in elementary modern dance technique, fundamentals of movement, elements of rhythm and spatial awareness, simple composition and improvisational dance studies. Provides the non-major with an awareness of the aesthetics and creative processes of dance. *3 Cr. Every Semester.*

DNS 125 Looking At Dance (A,F). Provides a survey of dance forms through lecture, literature, film and live performance. Addresses contributions to the art of dance by major choreographers, dancers and others throughout the world. *3 Cr.*

DNS 200 Traditional Dance Styles (A,P). Provides a study of selected traditional dance forms and development of skills through studio experience. Includes traditional dance styles such as folk and country dance, African, Afro-Caribbean dance, jazz, tap and ballet. Covers the artistic and educational uses of traditional dances, while allowing students to experience the recreational value of traditional dance styles. Can be repeated, but only three credits may be used toward the 120 credits required for graduation. *3 Cr.*

DNS 204 Dance Conditioning Laboratory (B). Explores conditioning methods and materials/equipment for dancers including discussions of wellness issues (i.e., stress management, diet, rest, etc.). Introduces students to the Conditioning Studio and given conditioning programs tailored to their needs. Focuses on providing information and dance-specific materials appropriate for independent use. *2 Cr.*

DNS 205 Dance Technique I (A). *Prerequisite: Audition prior to enrollment.* Provides an introduction to the Department of Dance and to the many aspects of the dance profession. Covers modern dance technique, improvisation, and dance composition assignments. Discusses pertinent topics in dance. Prerequisite to all other dance major courses. Includes studies in dance science and somatics. (Must pass audition prior to enrollment.) *3 Cr. Every Semester.*

DNS 206 20th-Century Dance: Issues and Styles (A,F,W). Provides for the study of the origin and evolution of 20th-century dance; important dance artists and their work; contemporary forms, trends and styles; a survey of dance literature through film; and video and written materials. *3 Cr. Fall.*

DNS 207 Dance Production (B). Covers all aspects of dance production, including light, stage management, costume, scenery and properties, and dance design as an art. Requires extensive evening crew work. While enrolled in DNS 207, students may not enroll in evening classes or perform in major Hartwell productions without instructor's permission. *3 Cr. Fall.*

DNS 208 Dance Production Practicum (B). Entails a practicum experience that provides an opportunity to develop an understanding of the dance production process. Students registered for DNS 208 should not take night classes or perform in dance concerts. *Spring.*

DNS 225 Movement and Self Awareness (A,P). Enables students to improve movement habits and increase self-awareness through effective and effi-

cient movement. Develops awareness of postural and movement characteristics, and observational skills for everyday movement and dance. Utilizes both movement and touch. *3 Cr. Every Semester.*

DNS 232 African Music and Drumming for Dance (A,P). *Cross-listed as AAS 232.* Studies selected traditional musical instruments for dance accompaniment; and develops performance skills and techniques through studio and live performance applications. Explores traditional styles and their social and artistic needs for formal religious and recreational application. Also explores modern educational and cultural usages in African schools and colleges. *3 Cr. Every Semester.*

DNS 245 Dance Technique II (A). *Prerequisite: DNS 205 and instructor's permission.* Beginning-level course to train the dancer to respond to a broad range of movement demands. Focuses primarily on modern technique. Placement in a technique level is determined by previous training and skill rather than academic standing. Includes studies in dance science and somatics. *3 Cr.*

DNS 253 Beginning Ballet (A). *Prerequisite: DNS 205 or instructor's permission.* Provides an introduction to the fundamentals of classical ballet with an emphasis on technique, body alignment and placement exercises performed at barre and center floor work. Incorporates stretch and strengthening techniques. Emphasizes ballet vocabulary and its application. *1-4 Cr.*

DNS 305 Kinesiology for Dancers (A). *Prerequisites: DNS 205 and BIO 221.* Explores the mechanical, physiological and anatomical requirements of specific dance techniques; limitation of the body in performing these techniques; and methods of safely extending the body's capacity for performance. *3 Cr. Spring.*

DNS 306 Beginning Dance Composition (A). *Prerequisite: DNS 205, DNS 364 and MUS 300.* Allows for beginning work in composition. Requires students to choreograph short studies and short solo dances as they learn the various elements of composition. *3 Cr.*

DNS 313 Movement for Theater (A). Develops dance skills as related to basic dance forms commonly used in theater productions. Allows for the execution of basic dance forms such as jazz, tap, ballet and modern dance for the theater; and provides studies in techniques of movement with emphasis on the performance aspect. *3 Cr.*

DNS 315 Dynamic Balance: Movement Theories (A). *Prerequisite or corequisite: DNS 305 and intermediate or advanced technique.* Allows for the performance of skills from the work of Irmgard Bartienieff, F. M. Alexander, and others; relating of kinesiological principles to the improvement of human movement patterns; significance of the mind/body relationship; and application of skills and principles to one's own performance. *3 Cr.*

DNS 316 History and Development of Dance (A,W). Surveys the history of dance as a cultural medium from prehistoric times to the early years of the 20th century, and the roles of women and men in dance performance, choreography, literature and education. Emphasizes dance in Western cultures, non-Western influences and African-American dance. Has a strong writing component. *3 Cr.*

DNS 330 African Dance II (A). *Cross-listed as AAS 330. Prerequisite: DNS 106 or instructor's permission.* Provides a more detailed examination of the content of DNS 106. Also provides background of the African dance with historical linkages with dance movement forms within the Afro-American, Caribbean and Latin-American setting; a general survey of the material of the dance; the structure and design of African dances in relation to ceremonial and recreational forms, e.g. linear circular forms, massed and team dances; and social organization of the dance. *3 Cr.*

DNS 333 African Music and Drumming for Dance II (A). *Prerequisite: DNS 232, AAS 232 or instructor's permission.* Studies selected advanced traditional musical instruments for dance accompaniment; and develops advanced performance skills and techniques through studio and live performance applications. Explores traditional styles and their social and artistic needs for formal religious and recreational application. Also explores modern educational and cultural usages in African schools and colleges. *3 Cr.*

DNS 339 Survey of Tap Dance II (A). *Prerequisites: DNS 103, or instructor's permission.* Covers complex rhythmic and technical skills; familiarity with periods, personalities and specific contributions involved in the development of tap dance; notation of dance steps in terms of vocabulary and rhythmic components; and the development of technique that focuses on rapidity of movement articulation and complex sequential patterns of movement, for intermediate/advanced dancers. *3 Cr.*

DNS 345 Dance Technique III (A). *Prerequisite: Instructor's permission.* Entails a series of courses on the intermediate level to train the dancer's body to respond to a broad range of movement demands. Focuses primarily on modern dance and ballet technique. Placement in a particular section is determined by previous training and skill rather than academic standing. Includes studies in dance science and somatics. *3 Cr.*

DNS 353 Intermediate Ballet (A). *Prerequisite: DNS 253.* Provides a continuation of the study of classical ballet at the intermediate level in a technique class consisting of full barre and center floor work. Incorporates stretch and strengthening exercises. *1-4 Cr.*

DNS 364 Dance Improvisation (A). *Prerequisites: DNS 205 or MUS 300.* Provides beginning dance and movement improvisation as a compositional and performance technique, and covers historical background and relationship to other arts, and develops skill in improvising dance movement and structuring dance improvisations. *2 Cr. Spring.*

DNS 371 Modern Dance Technique I (B). Provides an introduction to contemporary modern dance technique and theoretical background including an appreciation of historical and aesthetic perspectives of modern dance and movement vocabulary. Focuses on acquisition of basic dance skills, conditioning of the body and increased movement body awareness in the studio. Requires concert attendance and discussion of contemporary dance in relation to other dance and art forms. *3 Cr.*

DNS 372 Modern Dance Technique II (B). *Prerequisite: DNS 371 or equivalent.* Continues DNS 371 for students not majoring in dance. Develops motor skills in modern dance, dance vocabulary, body awareness, study of dynamics and rhythm. Emphasizes modern dance technique, but also employs movement exploration, improvisation, basic composition, concert attendance, dance films and discussion. *3 Cr.*

DNS 375 Introduction to Laban Movement Analysis (A). *Prerequisites: DNS 205 or instructor's permission.* Provides an introduction to Rudolf Laban's system of movement analysis, with an emphasis on qualitative description of movement. Sometimes called Effort/Shape, Laban Movement Analysis, provides a structure for intellectual and physical understanding of the body in motion. Includes reading, observations of live and recorded movement, lectures, and movement activities. *3 Cr. Spring.*

DNS 399 Independent Study (B). *Prerequisite: DNS 205.* Designed individually through consultation between the student and instructor to suit the student's needs and interests and the special competence of the instructor. Additional requirements may be established by the department.

DNS 400 Special Topics (B). Addresses in depth a selected study topic not covered in other courses. Is repeatable with different topic titles. Additional information may be obtained from the department. *1-4 Cr.*

DNS 424 Dance Repertory I (A). *Prerequisite: Instructor's permission.* Enables students to become familiar with a selected body of choreographed works through an in-depth study of the dances; and perform a learned repertory for public concerts. *3 Cr.*

DNS 425 Dance Repertory II (A). *Prerequisite: Instructor's permission.* Enables students to become familiar with a selected body of more advanced choreographed works through an in-depth study of the dances; and perform a learned repertory for public concerts. *3 Cr.*

DNS 427 Dance Performance Techniques (A). *Prerequisite: Advanced technical work; and at least intermediate or advanced technique.* Develops performance skills and awareness of the many components involved in the artistry of the performing dancer, and covers various techniques and aesthetics of performance. *3 Cr.*

DNS 430 Intermediate Dance Composition (A). *Prerequisite: DNS 306.* Allows students to further develop skills learned in Beginning Composition, with an emphasis on developing choreographic skills for duet and small groups. *3 Cr. Spring.*

DNS 433 African Dance III (A). *Cross-listed as AAS 433. Prerequisites: DNS 330 or instructor's permission .* Covers advanced dance for recreation, and ceremonial dance, including festival, war, court and ritual forms. Enables students to develop a mental, emotional and aesthetic awareness of the performance of an African dance. Examines the role of the African dance in the service of society in campus and off-campus performances. *3 Cr.*

DNS 437 Modern Jazz II (B). *Prerequisite: DNS 102 or instructor's permission .* Covers basic jazz styles, rhythms, artists and dances; jazz idiom; and performing style and definition of movement. Enables students to perceive and coordinate movement quickly in combined steps, and improvise lengthy jazz sequences in the jazz idiom. Required reading along with exploration of jazz from its historical perspective. *3 Cr.*

DNS 440 Summer Dance Workshop (A). Entails Summer Arts Festival workshops with guest artists. Includes topics such as dance technique, composition, repertory or other special topics. See SummerSession bulletins for complete descriptions. *1-6 Cr.*

DNS 445 Dance Technique IV (A). *Prerequisite: Instructor's permission.* Entails a series of courses on the advanced level designed to train the dancer's body to respond to a broad range of movement demands. Focuses on modern dance and ballet technique. Placement in a particular section is

determined by previous training and skill rather than academic standing. Includes studies in dance science and somatics. *3 Cr.*

DNS 452 Somatics: Body/Mind Integrity (A). Covers movement re-education for reducing stress and pain, improving posture, balance, mobility and self-image. Also covers processes of somatics derived from Feldenkrais Awareness Through Movement lessons (ATM). Entails yoga, body/mind centering, dance movement improvisations, and hands-on body work. *3 Cr.*

DNS 453 Advanced Ballet (A). *Prerequisite: DNS 353 or instructor's permission.* For the advanced-intermediate to advanced-level ballet student. Consists of a ballet technique class incorporating barre and center floor work, adagio, petite allegro, and grande allegro. Expects students to develop and perform the skills and style at the designated level. *1-4 Cr.*

DNS 454 Studies in Major Dance Styles (B). *Prerequisite: DNS 205 or instructor's permission.* Provides a concentrated study in a specific dance form (e.g. jazz, tap, musical theater) or a specific modern dance style (e.g. Martha Graham, Doris Humphrey, Merce Cunningham, Garth Fagan). May be repeated if topics are different. *1-4 Cr. Every Semester.*

DNS 457 DANSCORE (A). *Prerequisite: Instructor's permission.* Through a modern dance performance ensemble, provides an opportunity for study and performance to intermediate and advanced modern dance students. *1-4 Cr.*

DNS 460 Foreign Studies in Dance (A). *Prerequisite: Junior or senior status and departmental approval.* Explores dance and its uses and forms in another culture. Requires dance performance activities and academic study associated with dance at an institution in another country. The Department of Dance has exchange programs with England, Ghana, and Jamaica. *1-15 Cr. Every Semester.*

DNS 461 Labanotation I (A). *Prerequisite: DNS 205.* This course presents the basic principles of the Laban method of movement notation. The student develops skills in perceiving and analyzing movement, and in notating and reading back simple movement patterns. *3 Cr.*

DNS 462 Lighting for Dance (B). Covers lighting design, techniques, lighting production; relationships among designer, choreographer and other production personnel; and stage lighting as a spatial and temporal art form. Requires students to conceive, design and supervise lighting of a major dance concert. *3 Cr.*

DNS 463 Advanced Production and Design (B). *Prerequisite: DNS 207.* Concentrates on theatrical elements of dance production and design. Allows students to research, render, and in some cases, execute studio design of scenery, costumes, properties and make-up salient to dance. *3 Cr.*

DNS 480 Dance Science: Conditioning and Injury Prevention (A). *Prerequisites: BIO 221 and DNS 305.* Examines various dance training techniques, along with current information on injury prevention. Gives both the dancer and the trainer/kineseologist/exercise physiologist an opportunity to understand the special demands of the dance discipline on the body and its health. Includes weight and resistance training, motor imaging, proprioception, nutrition, skill repetition and the strength/flexibility ratio. *3 Cr. Fall.*

DNS 481 Dance in Secondary Schools I (B). *Prerequisite: Instructor's permission.* Enables students to outline goals for a semester, construct lesson plans, and teach and analyze technique classes. Is a field practicum. *3 Cr. Fall.*

DNS 482 Dance in Secondary Schools II (B). *Prerequisite: Instructor's permission.* Covers class management/organization. Allows students to develop course outlines and unit and lesson plans, and requires students to teach dance skills and conduct simple lectures and discussion. *3 Cr. Spring.*

DNS 483 Children's Dance I (A). *Prerequisites: DNS 115 or DNS 205.* Covers basic movement skills applied to creative dance with children, especially in the classroom; pertinent resources for children's dances; and how to work effectively with dancers and dance specialists. Is an evening class. *3 Cr. Fall.*

DNS 484 Children's Dance II (B). *Prerequisite: Instructor's permission.* Provides a basic orientation to teaching creative dance to young children; and covers the use of various approaches, such as problem solving, teacher-directed method, and invention. Allows students to develop curricular materials and evaluate procedures. Conducted with children during an after-school program. *3 Cr. Spring.*

DNS 488 Sankofa Dance Performance Lab (A). *Prerequisite: DNS 332.* An advanced course in Afro-Caribbean dance designed to prepare students interested in performing and teaching the dances. Techniques of performance are stressed. Cultural backgrounds of the dances are explored *3 Cr. Every Semester.*

DNS 489-491 Sankofa I-III (A). *Prerequisite: Instructor's permission.* Through an African dance and music performance ensemble, provides an opportunity for study, performance and touring for intermediate and advanced students of African dance. *3 Cr. Every Semester.*

DNS 495 Senior Seminar in Dance (A). *Prerequisite: Junior or senior status as dance major.* Prepares students for transition from student life to the professional world. Includes self-evaluation, finishing unrealized goals as a student at SUNY Brockport, exploring career options, writing a résumé, building a portfolio and pursuing job interviews. Involves discussions about the artist in society, the business of dance, companies and careers and the funding and promotion of dance. *3 Cr. Fall.*

DNS 499 Independent Study (A). Designed individually through consultation between the student and instructor to suit student's needs and interests and the special competence of the instructor; and in accordance with College policy. Additional requirements may be established by the department. *1-6 Cr.*

MUS 100 Fundamentals of Music for Dance (A). Provides a study of rhythm and elements of music. Explores the significance of "time" in movements and its importance to rhythmic phrasing in music and dance. *2 Cr.*

MUS 201 Computers and Music (A,T). Provides an introduction to computer basics and hands-on experience with music software. Explores computers as used by musicians and artists. Emphasizes sound analysis and digital music production. Surveys electronic and computer music. *3 Cr. Every Semester.*

MUS 300 Music for Dance (A). Emphasizes the correlation between rhythm and dynamics in music and movement, and rhythmic notation in relation to dance. Studies musical techniques needed to provide percussion accompaniment for dance movement. Provides some analysis of simple musical forms, and an introduction to music resources for the dance. *3 Cr.*

MUS 420 Music Literature for Dance (A). *Prerequisites: MUS 300.* Provides a study of musical literature with particular reference to interrelationships between dance and music; a historical survey; selection of music for dance; and Western classical, jazz, and world music resources. *3 Cr.*

MUS 455 Music Resources for Dance (A). *Prerequisite: MUS 300.* Explores music materials and resources for use in choreography; techniques of taping and creating taped collages for production; and concerns for original scores. Analyzes musical forms and rhythmic structure; and historical styles of music. *3 Cr.*