C

C D 103W  Topics in Preschool Program Administration  1 Unit
C D 103X  2 Units
C D 103Y  3 Units
C D 103Z  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273. One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter).
In-service workshop for program directors, site supervisors, head teachers, or others with administrative or supervisory responsibility to improve skills and knowledge in the area of Child Development program administration.

Computer Information Systems

CIS 2  Computers and the Internet in Society  4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
A critical examination of the capabilities and uses of the Internet, computers and cellular communications, and how they are changing business, law, politics, health, education, entertainment, and society.

CIS 3  Business Information Systems  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to management information systems, systems design and development, data communications, data management, office automation, computer hardware and software concepts. Use of common software packages for business applications including word processing, spreadsheets, database, and Internet web tools.

CIS 14A  Visual Basic .NET Programming I  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

CIS 14B  Visual Basic .NET Programming II  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 14A or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Develop professional looking and deployable Visual Basic applications using advanced controls, user-created classes, incorporating databases with ADO.NET 3.5, calling APIs, and creating Web applications.

CIS 15A  Introduction to Computer Programming Using C  4 1/2 Units
(Students may receive credit for either Computer Information Systems (15AG and 15BG) or 26A, but not both.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 114 or equivalent; Computer Information Systems 50.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Problem solving, algorithms and structured program design. Programming, testing and debugging of well-structured programs in C. Introduction to data types, expressions, control structures, functions, sequential files, and one-dimensional arrays.

CIS 15B  Intermediate Problem Solving in C  4 1/2 Units
(Students may receive credit for either Computer Information Systems (15AG and 15BG) or 26A, but not both.)
Prerequisite: Computer Information Systems 15AG.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
A systematic approach to the design, construction and management of computer programs, emphasizing design, programming style, documentation, testing and debugging techniques. Strings, multidimensional arrays and structures. Pointers: their use in arrays, parameters and dynamic allocation. Introduction to linked lists.

CIS 15C  Data Structures  4 1/2 Units
Prerequisite: Computer Information Systems 15BG or 26A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

CIS 18A  Introduction to UNIX/LINUX  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 10.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to the features of the UNIX/LINUX operating system including text editing, text file manipulation, electronic mail, Internet utilities, directory structures, input/output handling, and shell features.

CIS 18B  Advanced UNIX/LINUX  4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211) or English as a Second Language 272 and 273; Computer Information Systems 14A or 15AG or 22A and Computer Information Systems 18A.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Expanded coverage of regular expressions and grep. Advanced topics in UNIX/Linux, including sed, awk, file compression and conversion, make, basic shell scripts and installation of a Linux distribution.

CIS 18C  Shell Programming  4 1/2 Units
Prerequisite: Computer Information Systems 18B.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Programming in bash shell, Korn shell, tc shell and C shell.

CIS 21JA  Introduction to 8086/IA 32  4 1/2 Units
Processor Assembly Language
Prerequisite: Computer Information Systems 15BG or 26A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to the syntax and semantics of 8086 and IA32 assembly language, standard instruction set, selected pseudo and macro instructions, arrays, 8086/8086/386/486/Pentium features.

CIS 21JB  Advanced Programming: Series 86 and IA32/Pentium Assembly Language
Prerequisite: Computer Information Systems 21JA.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Coverage of theory and application of advanced programming techniques, with emphasis on combining multiple modules in a single program, inter-program connection, interrupt level programming and macro writing, recursive and reentrant techniques.

CIS 22A  Beginning Programming Methodologies in C++
(Formerly Computer Information Systems 71A.)
(Students may receive credit for either Computer Information Systems (22A and 22B) or 27, but not both.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 114 or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
An introduction to computer programming. Its primary objective is to teach problem solving using the C++ programming language. Emphasis will be placed on structured procedural programming with an introduction to object-oriented programming. Designed primarily for computer science and related transfer majors.

CIS 22B  Intermediate Programming Methodologies in C++
(Formerly Computer Information Systems 71B.)
(Students may receive credit for either Computer Information Systems (22A and 22B) or 27, but not both.)
Prerequisite: Computer Information Systems 22A.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
A systematic approach to the design, construction and management of computer programs, emphasizing design, programming style, documentation, testing and debugging techniques. Strings, multidimensional arrays, structures, and classes. Pointers: their use in arrays, parameters and dynamic allocation. Introduction to linked lists.

CIS 22C  Data Abstraction and Structures  4 1/2 Units
(Formerly Computer Information Systems 71C.)
Prerequisite: Computer Information Systems 22B or equivalent.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
Application of software engineering techniques to the design and development of large programs; data abstraction and structures and associated algorithms: stacks, queues, linked lists, trees, graphs, and hash tables; internal and external sorting; use of recursion; team project.

**CIS 26A  C as a Second Programming Language**  4 1/2 Units

(This course is intended for students who are competent in another programming language. Students may receive credit for either Computer Information Systems (15A and 15BG) or 26A, but not both.)

Prerequisite: An Introductory Programming Language course such as Computer Information Systems 14A.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

An introduction to the C programming language and its applications. Topics covered include: basic input/output, structured program design and implementation, basic control structures and keywords, arrays and pointers, character and string manipulation, arithmetic expressions, and functions and program modularization.

**CIS 26B  Advanced C Programming**  4 1/2 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent; Computer Information Systems 15BG or 26A or 22B.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Applications of advanced features of C and the C-language functions including: binary and random-access input/output, dynamic data structures, bit manipulation, string parsing and string-to-numeric conversion, event and error processing, function pointers, recursion, and variable-length argument lists functions.

**CIS 27  Programming in C++ for C/Java Programmers**  4 1/2 Units

(Students may receive credit for either Computer Information Systems (22A and 22B) or 27, but not both.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 15BG or 26A.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

A comprehensive introduction to the C++ programming language and its applications.

**CIS 28  Object Oriented Analysis and Design**  4 1/2 Units

Advisory: Computer Information Systems 27 or 35A or equivalent experience.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

 Defines and illustrates the object oriented paradigm for analyzing, designing and implementing object oriented computer applications. Trade-offs between various object oriented techniques will be illustrated with a series of real world applications to allow the student to optimize his/her solutions for robustness and reuse.

**CIS 29  Advanced C++ Programming**  4 1/2 Units

(Formerly Computer Information Systems 52G.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 27.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Advanced topics in C++ including: namespace, string and stringstream classes, cast operators, multiple inheritance, exception handling, compilation concepts, libraries, templates, the Standard Template Library and programming style.

**CIS 30A  Introduction to C# Programming**  4 1/2 Units

(Formerly Computer Information Systems 65A.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Introduction to C# programming, .Net Environment, computing context, primitive types, flow of control constructs, operators, text I/O, objects and classes, interfaces, packages, GUI, exceptions, and threads.

**CIS 30B  Advanced C# Programming**  4 1/2 Units

(Formerly Computer Information Systems 65B.)

Prerequisite: Computer Information Systems 30A.

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Emphasis on foundation technologies in C# that enable you to write server side programs in C#. Concepts include inner classes, collections, exceptions, file I/O, reflections, cloning, multi-threading, and trees.

**CIS 31  Operating System Concepts**  5 Units

Advisory: Computer Information Systems 15BG and 21JA.

Five hours lecture (60 hours total per quarter).

Concepts and use of operating systems: multiprogramming and multiprocessor systems; processes and threads, mutual exclusion, indefinite postponement, deadlocks; scheduling considerations and security management.

**CIS 33A  Programming in Perl**  4 1/2 Units

(Formerly Computer Information Systems 33.)

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Computer Information Systems 19A and either Computer Information Systems 15BG or 26A or 22B.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

A complete coverage of the core Perl language. Topics covered will include: basic loops and control structures, the elemental data types and operators, subroutines and variable looping, regular expressions and string parsing, manipulation of files and directories, advanced list processing with grep and map, references, built-in functions and core modules, and advanced input/output including random-access files and formatting.

**CIS 33B  Advanced Perl Programming**  4 1/2 Units

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262, and 263; Computer Information Systems 33A and either Computer Information Systems 15BG, 22B, or 26A.

Four hours lecture, and one and one-half hours laboratory (66 hours total per quarter).

Exploration of advanced topics from the core Perl distribution and essential non-core modules. Topics include reference-based data structures, object-oriented programming, connecting to SQL-based relational databases, non-relational database and file structures, process creation and management, and TCP/IP.

**CIS 35A  Java Programming as a Second Language**  4 1/2 Units

(Students may receive credit for either Computer Information Systems (36A and 36B) or 35A, but not both.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 15BG or 26A or 22B.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Introduction to Java programming, computing context, primitive types, flow of control constructs, operators, text I/O, objects and classes, interfaces, packages, GUI and exceptions.

**CIS 35B  Advanced Java Programming**  4 1/2 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 35A.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

Emphasis on foundation technologies in Java that enable you to write server side programs in Java. Concepts include inner classes, exceptions, file I/O, reflections, cloning, multi-threading, Web Programming with Java Server Pages, Servlets, JavaServer Faces and JavaBeans.

**CIS 36A  Introduction to Computer Programming Using Java**  4 1/2 Units

(Formerly Computer Information Systems 61.A.)

(Students may receive credit for either Computer Information Systems (36A and 36B) or 35A, but not both.)

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 114 or equivalent.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

An introduction to computer programming. The primary objective is to teach problem solving using the Java programming language. Emphasis will be placed on structured procedural programming with an introduction to object-oriented programming. Designed primarily for computer science and related transfer majors.

**CIS 36B  Intermediate Problem Solving in Java**  4 1/2 Units

(Formerly Computer Information Systems 61.B.)

(Students may receive credit for either Computer Information Systems (36A and 36B) or 35A, but not both.)

Prerequisite: Computer Information Systems 36A.

Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).

A systematic approach to the design, construction and management of computer programs, emphasizing design, programming style, documentation, testing and debugging techniques. Strings, multi-dimensional arrays and Classes. References: their use in arrays, parameters and containment. Introduction to linked lists.

**CIS 50  Introduction to Computers, Data Processing, and Applications**  3 Units

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.

Three hours lecture (36 hours total per quarter).

Computer information systems (IS) basic terms and concepts. Important IS trends. Using systems development to build information systems. Survey of functions and components of an information system including applications software, systems software, telecommunications, networks, the Internet and Web. Social and organization issues.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
CIS 53 | Java for Mobile Development | 4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 35A.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Mobile application development using Android features including: Android development tools, activities and intents, pictures and menus, data persistence, messaging and networking, and rich media features.

CIS 57 | Web Site Administration | 4 1/2 Units
Prerequisite: Computer Information Systems 66 and 89A.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to establishing, configuring, managing and controlling access to Internet servers.

CIS 63 | Systems Design | 4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Current tools of structured systems analysis and design: data flow diagrams, structure charts, HIPO charts, VTOCs, data structure/dictionaries, decision trees and tables, pseudo code.

CIS 64A | Database Management Systems | 4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 15BG.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Rudiments of database design, implementation and use. Basic understanding of various data modeling techniques. Overview and comparison of database management systems. Emphasis on relational databases; introduction to SQL.

CIS 64B | Introduction to SQL | 4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 64A.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to Oracle SQL (Structured Query Language), DML (Data Manipulation Language) processing techniques, DDL (Data Definition Language) techniques, selecting and sorting data, joins, SQL functions, Oracle objects, Oracle data processing concepts to maintain large database systems.

CIS 64C | Introduction to PL/SQL | 4 1/2 Units
Prerequisite: Computer Information Systems 64B.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Oracle PL/SQL features cover data definition and data manipulation using expressions, control structures, and Oracle objects. Error handling, predefined packages, triggers, transactions and advanced PL/SQL features.

CIS 64D | Database Tuning | 3 Units
Prerequisite: Computer Information Systems 64C.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Emphasis on importance of Performance Tuning, techniques for tuning several Oracle components, optimizing database for high volume transactions and Data Warehouses.

CIS 66 | Introduction to Data Communication and Networking | 5 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Computer Information Systems 3 or 50.
Five hours lecture (60 hours total per quarter).
Concepts of communication, data communications and networks. Overview of connectivity options, common protocols, local and wide area networks.

CIS 67A | Local Area Networks | 4 Units
Prerequisite: Computer Information Systems 66.
Four hours lecture (48 hours total per quarter).
Fundamental concepts of Local Area Network architecture and protocols. Emphasis on basic concepts needed to design, configure, and implement Local Area Networks. Emphasis on the evolution of Fast Traditional Ethernet, Fast Ethernet, Gigabit Ethernet, Ten-Gigabit Ethernet, ATM, and wireless LANs.

CIS 67B | Introduction to Wide Area Networking | 4 Units
Advisory: Computer Information Systems 67A.
Four hours lecture (48 hours total per quarter).

CIS 73 | UNIX/Linux Systems Programming | 4 1/2 Units
Prerequisite: Computer Information Systems 18A and 268.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Coverage of systems programming in the UNIX/Linux/POSIX environments, with emphasis on low-level UNIX/Linux/POSIX system calls from C programs and Shell scripts. Discussion of differences in major UNIX/Linux/POSIX environments.

CIS 74 | Computer Software Quality Assurance | 4 1/2 Units
Advisory: Computer Information Systems 50.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Analysis of types of software: software development life cycle; top down design and structural programming; modularization; standards and practices; computer configuration management; software testing; documentation; software error types, causes; software quality assurance plans and procedures; software discrepancy reports, analysis; software visibility for managers.

CIS 75A | Internet Concepts and TCP/IP Protocols | 5 Units
Prerequisite: Computer Information Systems 66.
Advisory: Computer Information Systems 26A or Computer Information Systems 15AG; English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture (60 hours total per quarter).
The architecture and underlying protocols of the Internet. The Internet will be examined as a layered product. Layers discussed will include mid-level packet delivery and address computation and high-level client/server applications using the TCP/IP Protocol Suite.

CIS 75B | Internet Programming with TCP/IP | 4 1/2 Units
Prerequisite: Computer Information Systems 26B and 75A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Writing client/server applications using the TCP/IP protocol suite. All server classes - “well known”, iterative, concurrent, and polling - will be explored and used. Typical Internet programming problems will be addressed including resource availability, machine addressing, and differences in data representation between communicating computers.

CIS 75C | Enterprise Security Threats Management | 4 1/2 Units
Prerequisite: Computer Information Systems 75A or equivalent experience.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Learn how to apply Enterprise Security Concepts to monitor security threats, outages and analyze such results. Learn to predict hacker’s mindset and respond to hacker attack. Raise awareness in your workplace about security policy and procedures. System Administrators, IT Managers and Analysts would benefit from this course as well as technologists wanting to broaden their impact.

CIS 75D | Enterprise Security Policy Management | 3 Units
Prerequisite: Computer Information Systems 75A or equivalent experience.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Two hours lecture, three hours laboratory (60 hours total per quarter).
Learn how to secure your enterprise network by creating a security policy and create procedures to maintain security policy. Learn to perform risk analysis and assessment on enterprise security. System Administrators, IT Managers and Analysts would benefit from this course as well as technologists wanting to broaden their impact.

CIS 75E | Enterprise Emergency Response Planning | 2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Two hours lecture (24 hours total per quarter).
Learn how to plan for emergency response, recover from a disaster and how to mitigate risks. System Administrators, IT managers and Analysts would benefit from this course as well as technologists wanting to broaden their impact.
CIS 76 Introduction to Network Security 4 Units
Prerequisite: Computer Information Systems 75A.
Advisory: Mathematics 212 or equivalent.
Four hours lecture (48 hours total per quarter).
Network security using the standard protocols and algorithms. All three goals of security including confidentiality, integrity, and availability will be discussed. Attacks on security including active and passive are discussed and elaborated on. Two major techniques of security, cryptography and steganography, are described with emphasis on cryptography. The emphasis is on mechanisms and services provided by the network security.

CIS 77 Special Projects in Computer Information Systems 1 Unit

CIS 77X 2 Units
CIS 77Y 3 Units
(Formally Computer Information Systems 96, 96X and 96Y respectively.)
Prerequisite: Approved Special Projects Contract and appropriate technical background to support the completion of project objectives.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours laboratory for each unit of credit (36 hours total for each unit of credit per quarter). (Hours to be individually arranged.)
Design, implement, and document a special computer programming project.

CIS 79 Managing Technology Projects 4 1/2 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to the theory and practice of the design and management of technology projects, including planning, performing, and monitoring of projects. Subjects explored are estimating costs and schedules, analyzing client expectations, guiding diverse groups of people toward a common goal, while earning a profit. Use of common software packages for project management.

CIS 80A Process Management 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours lecture (36 hours total per quarter).
Learn the basics of process mapping in examining work flow and relationships to improve the efficiency of an organization, improve communication and understanding, and find ways to optimize a process.

CIS 82W Current Topics in Computer Information Systems 1 Unit

CIS 82X 2 Units
CIS 82Y 3 Units
CIS 82Z 4 Units
(Formally Computer Information Systems 200W-Z.)
Credit course - Does not apply to De Anza Associate degree.
Requisite/Advisory: None.
One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter). A planned program of exposure to fundamental concepts and applications of selected Computer Information Systems topics. Concepts and theories as applied to the specific topic.

CIS 83 Open Computer Information Systems Laboratory 1/2 Unit
Co-requisite: Computer Information Systems 82W, 82X, 82Y or 82Z.
One and one-half hours laboratory (18 hours total per quarter). Pass-No Pass (P-NP) course. Use of the computer laboratory facilities in conjunction with a Computer Information Systems programming class.

CIS 86 Computer Accounting Systems 5 Units
Prerequisite: Accounting 1A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Accounting 86. Students may enroll in either department, but not both, for credit.)
Five hours lecture (60 hours total per quarter).
Fundamentals of computerized accounting using integrated general ledger software packages and electronic spreadsheet software. Conversion of a manual system to a computer system.

CIS 89A Web Page Development 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 18A.
Two hours lecture, three hours laboratory (60 hours total per quarter).
Fundamentals of Web page design and creation: designing, encoding, and maintaining pages on the World Wide Web using HTML/XHTML.

CIS 89C Client-Side Programming with JavaScript 4 1/2 Units
Advisory: Computer Information Systems 89A, and Computer Information Systems 14A or 15G.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Fundamentals of client-side programming for Web pages requiring data collection or other user interaction. Students will create Web pages that execute on the client (personal system) using JavaScript.

CIS 93 Computer Literacy 4 1/2 Units
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduction to the computer for non-computer science students. History of the computer, hardware, software, operating system mechanics, system management utilities, basics of networking and the Internet. The social impact and future of computers for communication systems are discussed. An integrated software package for word processing, spreadsheets, databases, e-mail, Internet and presentations is used.

CIS 95A Project Management - A Practicum 5 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours lecture (60 hours total per quarter).
Focus on your role as a Project Manager; selecting a project; selecting a team; documentation and tracking of a project using Project Manager Book of Knowledge (PMBOK) Theory.

CIS 95B Project Planning and Control - A Practicum 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 95A or equivalent.
Four hours lecture (48 hours total per quarter).
Create a project scope statement that will act as a basis for creating a project plan. Build a project plan that integrates time, resources and communication with cost and quality of work. Plan controls to proactively mitigate risks.

CIS 95C Risk Assessment and Mitigation - A Practicum 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 95A or equivalent.
Three hours lecture (36 hours total per quarter).
Learn to acquire goods and services from an outside organization using procurement and solicitation processes. Perform contract administration till completion and settlement of contract.

CIS 95D Managing Outsourcing - A Practicum 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 95A or equivalent.
Three hours lecture (36 hours total per quarter).
Focus on responding to uncertain events or conditions for a positive or negative effect on project objectives. Implement techniques for planning for risks and learn to change project plans to reduce the probability and/or impact of the risk.

CIS 95E CAPM and PMP Exam Preparation 4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Computer Information Systems 95A or equivalent.
Four hours lecture (48 hours total per quarter).
Prepares the student for attempting the Project Management Professional (PMP) or Certified Associate in Project Management (CAPM) examination provided by Project Management Institute (PMI). Topics include management of integration, scope, time, cost, quality, human resources, communications, risk and procurement.

CIS 98 Digital Image Editing Software (Photoshop) 4 1/2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Digital imaging principles to produce graphics for websites and print. Hands-on experience with the elements and tools to set up files, manage documents, and perform image processing.

CIS 99 Office Software Applications 4 1/2 Units
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, one and one-half hours laboratory (66 hours total per quarter).
Introduces concepts and hands-on projects using four common office productivity software programs including word processing, spreadsheet, database and presentation software.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
CIS 108  Personal Computer Security Basics  4 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Four hours lecture (48 hours total per quarter).
Beginner’s computer security course for small office or home users. Learn to stop
hackers, worms, viruses, spyware, Web bugs and identity theft. Learn vulnerabilities
found in Web browsers, email and operating systems. Protect against online
purchase dangers, install firewalls, manage cookies, restrict ports, analyze log
files, evaluate wireless networks and examine encryption.

CIS 170F  Windows 7 Administration  4 1/2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Four hours lecture, one and one-half hours laboratory (66 hours total per
quarter).
Provides knowledge and skills to setup, configure, use, and support Windows 7
operating system. Course covers Windows 7 features including installing, upgrading,
configuring and troubleshooting. Learn how to configure Windows security, network
connectivity and subsystems. Additional topics include configuring/troubleshooting
mobile computing and learning how to use Windows 7’s built-in applications.

Counselling

COUN 80X  Special Topics in Counseling  1 Unit
COUN 80Y  2 Units
COUN 80Z  3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
One hour lecture for each unit of credit (12 hours total for each unit of credit per
quarter).
Selected counseling topics with a focus on academic and personal development.

COUN 200  Orientation to College  1/2 Unit
COUN 200X  1 Unit
(Formerly Counseling 100 and 100X respectively.)
Credit course - Does not apply to De Anza Associate degree.
Requisite/Advisory: None.
Two hours lecture-laboratory for each unit of credit (24 hours total for each unit
of credit per quarter).
Pass-No Pass (P-NP) course.
An orientation to De Anza College that includes programs, services, policies,
degrees, certificates, transfer requirements, and college culture. Focus will be on
strategies needed for academic success and the development of a two quarter
Educational Plan.

Drama

(See Dance and/or Theatre Arts course listings.)

Dance

DANC 22  Body Awareness and Conditioning for Dancers  1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Ballet and Conditioning Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Principles of dance and conditioning through floor work derived from ballet,
contemporary dance and other psycho-physical disciplines. Topics may include
but are not limited to: body mechanics, muscle groups critical to dance, flexibility,
alignment, self-assessment, dance injury prevention, and strengthening the mind-
body connection.

DANC 22K  Theory and Technique of Ballet I  1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Ballet and Conditioning Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Introduction to the discipline and creative art of classical ballet, focusing on the
development of elementary movement theory and techniques, including ballet
barre and elementary center floor exercises.

DANC 22L  Theory and Technique of Ballet II  1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 22K.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Ballet and Conditioning Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Study and practice of the discipline and creative art of classical ballet, focusing on
barre and center floor work, along with the acquisition of a working ballet
vocabulary at a beginning level.

DANC 23A  Theory and Technique of Contemporary (Modern) Dance I  1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Dance Technique Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Introduction to the discipline and creative art of contemporary modern dance.
Students will be instructed in one particular contemporary dance technique (i.e.
Limon, Graham Hawkins etc.).

DANC 23B  Theory and Technique of Contemporary (Modern) Dance II  1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 23A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Dance Technique Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Study and practice of the discipline and creative art of contemporary dance focusing
on practice, theory, technique, and movement explorations in time and space, in
two contemporary dance techniques (i.e. Limon, Graham, etc.).

DANC 23H  Dance Composition  2 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Four hours lecture-laboratory (48 hours total per quarter).
Introduction to the fundamental elements and techniques of individual and group
dance composition.

DANC 23L  Theory and Technique of Hip-Hop I  1 Unit
(1) (Popular American Dance)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
An introduction to the discipline of creative arts through hip-hop dance with an
integrated fitness approach that focuses on developing the stabilization muscles
of the center of the body. Concentration will be on muscles of the torso, back,
hips, inner and outer thighs, chest and abdominals will be used in conjunction
with breathing, posture, and muscle awareness. Exposure to great works and
artists of the field. Development of a working hip-hop dance vocabulary. Theory
and practice of basic technique.

DANC 23M  Theory and Technique of Hip-Hop II  2 Units
(1) (Popular American Dance II)
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 23L.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture-laboratory (48 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more
information.)
Explanations in the discipline of creative arts through the theory and practice of
hip-hop dance intermediate/advanced level technique, with an integrated fitness
approach that focuses on developing the stabilization muscles of the center of the
body. Concentration will be on muscles of the torso, back, hips, inner and outer
thighs, chest and abdominals will be used in conjunction with breathing, posture,
and muscle awareness. Exposure to great works and multicultural artists of the
field. Development of a working hip-hop dance vocabulary and performance skills.
DANC 24A Theory and Technique of Social Dance I 1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the discipline and creative art of social dance. Exposure to basic
forms of social dance in a ballroom context. Developing a working vocabulary
of traditional social dance movements and an understanding of the cultural and
historical contexts that produced the specific dance styles.

DANC 24B Theory and Technique of Social Dance II 1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the discipline and creative art of social dance, part two. Exposure to
basic forms of social dance in a ballroom context. Developing a working vocabulary
of traditional social dance movements and an understanding of the cultural and
historical contexts that produced the specific dance.

DANC 24C Theory and Technique of Social Dance III 1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
The art of social dance at the advanced level. Expanded exposure to basic forms of
social dance in a ballroom context. Developing a working vocabulary of
traditional social dance movements and an understanding of the cultural and
historical contexts that produced the specific dance styles.

DANC 24D Dance Workshop (Student Productions, the De Anza Dancers) 1 Unit
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
An introduction to the basic techniques of dance production and performance.

DANC 27A Theory and Technique of Salsa Dance I 1 Unit
(See general education pages for the requirement this course meets.)
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or
English as a Second Language 261, 262 and 263.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Dance Technique Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the discipline and creative art of salsa dance. Body conditioning,
exposure to the history of major American artists, and their works. The development of
a working vocabulary and practice of elementary salsa dance techniques.

DANC 27B Theory and Technique of Salsa Dance II 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 27A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Dance Technique Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Exploring elements of time, space, shape and motion as related to jazz dance on a
beginning level. Body conditioning to increase functional range of motion and core
muscular strength. Exposure to major international influences, artists, and works.

DANC 37A Theory and Technique of Jazz Dance I 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 37A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Dance Technique Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the discipline and creative art of jazz dance. Body conditioning,
exposure to the history of major American artists, and their works. The development of
a working vocabulary and the practice of elementary jazz dance techniques.

DANC 37B Theory and Technique of Jazz Dance II 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 37A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Four hours lecture (48 hours total per quarter).
A study of dance as a cultural phenomenon, form of communication, socialization,
recreation, artistic expression, and entertainment. Exploring the history, traditions
and works of outstanding artists.

DANC 48 Technical Production for Dance and Theatre 2 Units
(Formerly Dance 58.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
(Also listed as Theatre Arts 48. Students may enroll in either department, but not
both, for credit.)
Four hours lecture-laboratory (48 hours total per quarter).
(This course is included in the Dance Performance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the theoretical, technical and craft of dance and theatre production
with practical experience in public presentation.

DANC 49A Topics in Theory and Technique of World Dance 1 Unit
(Formerly Dance 50A.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Two hours lecture-laboratory (24 hours total per quarter).
(This course is included in the Social/Cultural Dance Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Introduction to the art of world dance. Course will provide exposure to forms of
dance from an international perspective. Students will learn to perform the basic
skills of classical, traditional, and folk dances from various world cultures, while
developing a working vocabulary of traditional dance movements. Students will
attempt to gain an understanding and appreciation of the cultural and historical
contexts that produced the specific dance forms.

DANC 52M Theory and Technique of Ballet III 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 52A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or
English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(This course is included in the Ballet and Conditioning Family of activity courses.
Please see Course Repetition, Repeatability and Families page for more information.)
Study and practice of the discipline and creative art of classical ballet, combining:
traditional techniques center floor work emphasizing alignment/centering, motion
through space, and the acquisition of an intermediate working ballet vocabulary.
DANC 53C Theory and Technique of Contemporary (Modern) Dance III 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 23A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(For more information, please see Course Repetition, Repeatability and Families page for more information.)
The discipline and creative art of contemporary dance focusing on practice, theory, technique, and movement explorations in time and space, developing a working intermediate dance vocabulary in three contemporary dance techniques (i.e. Limon, Graham, Dunham).

DANC 57C Theory and Technique of Jazz Dance III 1 Unit
(See general education pages for the requirement this course meets.)
Prerequisite: Dance 37B.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Three hours laboratory (36 hours total per quarter).
(For more information, please see Course Repetition, Repeatability and Families page for more information.)
Exploring elements of time, space, shape and motion as related to jazz dance. Body conditioning, exposure to major international influences, artists, and works. The practice and development of a working jazz dance technical vocabulary at an intermediate level.

DANC 78L Special Topics in Dance 1/2 Unit
Prerequisite: Enrollment by audition.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Two hours lecture-laboratory for each unit of credit (24 hours total for each unit of credit per quarter).
(For more information, please see Course Repetition, Repeatability and Families page for more information.)
Special topics that incorporate theory and practice within the discipline of dance.

ECON 1 Principles of Macroeconomics 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
An introduction to macroeconomics. Topics covered will include recessions and inflation, national income accounting, money and the banking system, money and the price level, classical macro theory, Keynesian macro theory, monetary and fiscal policy, and international trade.

ECON 2 Principles of Microeconomics 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture (48 hours total per quarter).
Examines fundamental microeconomic issues; the allocation of resources and the production function, pricing of output and factors of production; the distribution of wealth and income; consumer motivations and behavior; the nature and behavior of business firms and markets under various degrees of competition; current problems.

ECON 78I Economic Issues in Today's World 3 Units
ECON 78J 4 Units
(Formerly Economics 40I and 40J respectively.)
Advisory: English Writing 1A or English as a Second Language 5; Economics 1 or 2.
Three hours lecture for the three unit course (36 hours total per quarter); four hours lecture for the four unit course (48 hours total per quarter).
Basic economic analysis of current economic issues. Each topic studied is selected according to its currency and relevance to analysis. Examines fundamental economics issues within the context of current socio-political activity within the local or national economic environment. By learning the economic way of thinking, our students develop the ability to analyze complex, often ill-defined problems, and to think strategically about both intended and unintended consequences. The study of Economics develops a student's ability to organize thoughts, analyze complex issues, and to make clear and persuasive recommendations. These skills explain why economics majors score higher on law school admissions tests than other majors, and receive among the highest starting salaries. Recent classes have involved experimental economic techniques and their application to the understanding and testing of theory; the changing European economic community; liberal, conservative and radical perspectives on current economic policy; the restructuring of the California and United States economy; public finance options for local, state and federal government units; the use of simulations and modeling in economic analysis; political economy; and, experimental and behavioral economic theories and practices.

Economics

EDUC 1 Introduction to Elementary Education in a Diverse Society 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Two hours lecture, three hours laboratory (60 hours total per quarter).
Examines principles and practices of elementary education in today's society including observations and supervised participation in the elementary school setting.

EDUC 46 Mathematics for Elementary Education 5 Units
(See general education pages for the requirement this course meets.)
Prerequisite: Mathematics 114 with a grade of C or better, or a qualifying score on Intermediate Algebra Placement Test within the past calendar year.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Mathematics 46. Students may enroll in either department, but not both, for credit.)
Five hours lecture (60 hours total per quarter).
Designed for prospective elementary and middle school teachers. An introduction to the discipline of mathematics as the use of logical, quantitative, and spatial reasoning in the abstraction, modeling, and problem solving of real-world situations. The main topics in the course include the origins of mathematics, mathematical reasoning, and problem solving strategies, theory of sets, integers and integral number theory, rational numbers and proportion, real numbers and decimal notation, and measurement. Throughout the course students will experience the learning of mathematics in a way that models how they can create an active learning environment for their future students.

EDUC 56 Understanding and Working with English Language Learners 3 Units
Advisory: Completion of Child Development 10G (or Psychology 10G) and 55; English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Child Development 56. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter).
Developmental and cultural examination of the dual language learner in early childhood programs. Theories and developmental sequence of bilingual language acquisition. Role of teacher and methods for supporting the dual language child. (This course meets NAEYC Standard 4b: Teaching and learning: Using developmentally effective approaches; NBPTS Early childhood/Generalist Standard II: Equity, Fairness and Diversity; CEC Special Education Content Standards, Standard 2: Development & Characteristics of Learners; Standard 6: Language.)

EDUC 58 Children's Literature 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as English Literature 58. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
Study of the literature of children (pre-elementary through young adult) with an emphasis on poetry, picture books, folk tales, myths, fiction, fantasy, and nonfiction from a variety of cultures, ethnicities and historical periods. Evaluation of the literary quality and the cultural and historical meaning of individual works. Study of the use of children's literature as an educational tool both in the classroom and outside of it.

EDUC 73 Early Childhood Mental Health 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Child Development 73. Students may enroll in either department, but not both, for credit.)
Three hours lecture (36 hours total per quarter).