## Accounting

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Units</th>
<th>Prerequisites</th>
<th>Advisory</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCT 1A</td>
<td>Financial Accounting I</td>
<td>5</td>
<td>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent. Five hours lecture (60 hours total per quarter). The primary objective of this course is to help students learn how accounting meets the information needs of various users by developing and communicating information that is used in decision-making. Accordingly, the expected student outcome is the demonstration that the student can read, analyze and interpret external financial statements.</td>
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<td>Five hours lecture (60 hours total per quarter). The primary objective of this course is to help students learn how accounting meets the information needs of various users by developing and communicating information that is used in decision-making. Accordingly, the expected student outcome is the demonstration that the student can read, analyze and interpret external financial statements.</td>
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<tr>
<td>ACCT 1B</td>
<td>Financial Accounting II</td>
<td>5</td>
<td>Prerequisite: Accounting 1A. Five hours lecture (60 hours total per quarter).</td>
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<td>Five hours lecture (60 hours total per quarter). Study the role of management accounting information in organizations for operational control, product and customer costing and performance measurement.</td>
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<tr>
<td>ACCT 1C</td>
<td>Managerial Accounting</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Five hours lecture (60 hours total per quarter). Principles, control, and theory of accounting for assets, financial statements, cash and cash flows, receivables, inventories, plant and equipment, intangible assets.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Principles, control, and theory of accounting for liabilities and equities, corporations, accounting changes, statements from incomplete records, price level and fair-value accounting.</td>
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<tr>
<td>ACCT 51A</td>
<td>Intermediate Accounting</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Five hours lecture (60 hours total per quarter).</td>
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<td>Five hours lecture (60 hours total per quarter). Presents financial accounting theories and practices related to business combinations and consolidated financial reporting. This includes the development of complex business structures and forms of business combinations; consolidated financial reporting for intercorporate acquisitions and operations; and the accounting for transactions of affiliated companies. Also includes accounting and reporting issues in the multinational business environment. Accounting theory and practice related to the formation, operation and liquidation of partnerships is covered.</td>
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<tr>
<td>ACCT 51B</td>
<td>Intermediate Accounting</td>
<td>5</td>
<td>Advisory: Accounting 1B. Five hours lecture (60 hours total per quarter). Principles, control, and theory of accounting for liabilities and equities, corporations, accounting changes, statements from incomplete records, price level and fair-value accounting.</td>
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</tr>
<tr>
<td>ACCT 52</td>
<td>Advanced Accounting</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Advisory: Accounting 51A. Five hours lecture (60 hours total per quarter).</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Presents financial accounting theories and practices related to business combinations and consolidated financial reporting. This includes the development of complex business structures and forms of business combinations; consolidated financial reporting for intercorporate acquisitions and operations; and the accounting for transactions of affiliated companies. Also includes accounting and reporting issues in the multinational business environment. Accounting theory and practice related to the formation, operation and liquidation of partnerships is covered.</td>
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<tr>
<td>ACCT 58</td>
<td>Auditing</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Advisory: Accounting 51B. Five hours lecture (60 hours total per quarter). Study of environment, principle, and practices of financial statement audit. Topics include Generally Accepted Auditing Standards (GAAS), Sarbanes-Oxley Act 2002 regulatory requirements, internal controls and audit risk; audit planning, procedures, evidence, documentation and reports.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Study of environment, principle, and practices of financial statement audit. Topics include Generally Accepted Auditing Standards (GAAS), Sarbanes-Oxley Act 2002 regulatory requirements, internal controls and audit risk; audit planning, procedures, evidence, documentation and reports.</td>
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<tr>
<td>ACCT 64</td>
<td>Payroll and Business Tax Accounting</td>
<td>3</td>
<td>Prerequisite: Accounting 1A. Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 212 or equivalent. Three hours lecture (36 hours total per quarter). Fundamentals of payroll accounting using manual and computerized accounting systems. Theoretical and practical aspects of payroll accounting and reporting. Course includes federal and California payroll tax rules and forms.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Fundamentals of payroll accounting using manual and computerized accounting systems. Theoretical and practical aspects of payroll accounting and reporting. Course includes federal and California payroll tax rules and forms.</td>
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<tr>
<td>ACCT 65</td>
<td>Accounting for Government and Nonprofit Entities</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Advisory: Accounting 1C. Five hours lecture (60 hours total per quarter). Presents the characteristics and principles of the financial policies and procedures followed by state, county and municipal governments, as well as public and private universities and hospitals, and certain nonprofit organizations. The course will emphasize the importance to governmental agencies of properly discharging their responsibilities to taxpayers. These responsibilities include the proper accounting for and budgeting of tax and related revenues and expenditures. The course will also emphasize the importance to nonprofit entities of meeting the financial reporting and management needs of various stakeholders such as donors, service providers and recipients, community members, and regulatory agencies. Funds, fund accounting, and the newest GASB and FASB pronouncements relating to accounting for governmental and nonprofit entities are also presented.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Presents the characteristics and principles of the financial policies and procedures followed by state, county and municipal governments, as well as public and private universities and hospitals, and certain nonprofit organizations. The course will emphasize the importance to governmental agencies of properly discharging their responsibilities to taxpayers. These responsibilities include the proper accounting for and budgeting of tax and related revenues and expenditures. The course will also emphasize the importance to nonprofit entities of meeting the financial reporting and management needs of various stakeholders such as donors, service providers and recipients, community members, and regulatory agencies. Funds, fund accounting, and the newest GASB and FASB pronouncements relating to accounting for governmental and nonprofit entities are also presented.</td>
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<tr>
<td>ACCT 66</td>
<td>Cost Accounting</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Advisory: Accounting 1C. Five hours lecture (60 hours total per quarter). Procedures, practices, and fundamentals used by accountants when costing products or services, evaluating and measuring performances, and reporting results to users of accounting information.</td>
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<td>Five hours lecture (60 hours total per quarter). Procedures, practices, and fundamentals used by accountants when costing products or services, evaluating and measuring performances, and reporting results to users of accounting information.</td>
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<tr>
<td>ACCT 67A</td>
<td>Federal Income Tax</td>
<td>4</td>
<td>Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent; Accounting 1A (may be taken concurrently). (Also listed as Business 67A. Students may enroll in either department, but not both, for credit.) Four hours lecture (48 hours total per quarter).</td>
<td></td>
<td>Four hours lecture (48 hours total per quarter). A study of current federal income tax law and the procedures for preparing an individual's tax return.</td>
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<tr>
<td>ACCT 67B</td>
<td>Advanced Tax Accounting I</td>
<td>4</td>
<td>Advisory: Accounting 67A or Business 67A. (Also listed as Business 67B. Students may enroll in either department, but not both, for credit.) Four hours lecture (48 hours total per quarter).</td>
<td></td>
<td>Four hours lecture (48 hours total per quarter). A study of current federal income tax law and California income tax law as it relates to individuals and sole proprietorship taxes.</td>
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<tr>
<td>ACCT 68</td>
<td>Advanced Tax Accounting II</td>
<td>4</td>
<td>Advisory: Accounting 1A. Four hours lecture (48 hours total per quarter). A study of current federal income tax law as it relates to corporations, partnerships, estates, trusts, and gift taxes. California tax law differences will be highlighted.</td>
<td></td>
<td>Four hours lecture (48 hours total per quarter). A study of current federal income tax law as it relates to corporations, partnerships, estates, trusts, and gift taxes. California tax law differences will be highlighted.</td>
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<tr>
<td>ACCT 73</td>
<td>Fraud Detection and Deterrence</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Five hours lecture (60 hours total per quarter). The principles and methodology of fraud detection and deterrence as it relates to occupational fraud are covered in this course. Includes such topics as skimming, cash larceny, check tampering, register disbursement schemes, billing schemes, payroll and expense reimbursement schemes, non-cash misappropriations, corruption, accounting principles and fraud, fraudulent financial statements, risk assessment and interviewing witnesses.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). The principles and methodology of fraud detection and deterrence as it relates to occupational fraud are covered in this course. Includes such topics as skimming, cash larceny, check tampering, register disbursement schemes, billing schemes, payroll and expense reimbursement schemes, non-cash misappropriations, corruption, accounting principles and fraud, fraudulent financial statements, risk assessment and interviewing witnesses.</td>
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<tr>
<td>ACCT 75</td>
<td>Accounting for Government and Nonprofit Entities</td>
<td>5</td>
<td>Prerequisite: Accounting 1B. Advisory: Accounting 1C. Five hours lecture (60 hours total per quarter). Presents the characteristics and principles of the financial policies and procedures followed by state, county and municipal governments, as well as public and private universities and hospitals, and certain nonprofit organizations. The course will emphasize the importance to governmental agencies of properly discharging their responsibilities to taxpayers. These responsibilities include the proper accounting for and budgeting of tax and related revenues and expenditures. The course will also emphasize the importance to nonprofit entities of meeting the financial reporting and management needs of various stakeholders such as donors, service providers and recipients, community members, and regulatory agencies. Funds, fund accounting, and the newest GASB and FASB pronouncements relating to accounting for governmental and nonprofit entities are also presented.</td>
<td></td>
<td>Five hours lecture (60 hours total per quarter). Presents the characteristics and principles of the financial policies and procedures followed by state, county and municipal governments, as well as public and private universities and hospitals, and certain nonprofit organizations. The course will emphasize the importance to governmental agencies of properly discharging their responsibilities to taxpayers. These responsibilities include the proper accounting for and budgeting of tax and related revenues and expenditures. The course will also emphasize the importance to nonprofit entities of meeting the financial reporting and management needs of various stakeholders such as donors, service providers and recipients, community members, and regulatory agencies. Funds, fund accounting, and the newest GASB and FASB pronouncements relating to accounting for governmental and nonprofit entities are also presented.</td>
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<tr>
<td>ACCT 86</td>
<td>Computer Accounting Systems</td>
<td>5</td>
<td>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 Computer Information Systems 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.</td>
<td></td>
<td>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.</td>
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<tr>
<td>ACCT 87A</td>
<td>Computerized Accounting Programs I</td>
<td>2</td>
<td>Prerequisite: Accounting 1A. Four hours lecture-laboratory (48 hours total per quarter). Introduction to computerized accounting for service industry. Applications include general ledger setup, accounts payable, accounts receivable and payroll. Course will take advantage of new accounting software being used in industry.</td>
<td></td>
<td>Five hours lecture-laboratory (48 hours total per quarter). Introduction to computerized accounting for service industry. Applications include general ledger setup, accounts payable, accounts receivable and payroll. Course will take advantage of new accounting software being used in industry.</td>
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All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
ACCT 87AI  Computerized Accounting Programs I  2 Units
(Quickbooks)
Prerequisite: Accounting 1A.
Four hours lecture-laboratory (48 hours total per quarter).
Introduction to computerized accounting for service industry. Applications include general ledger setup, accounts payable, accounts receivable and payroll. Course will take advantage of new accounting software being used in industry.

ACCT 87AJ  Computerized Accounting Programs I  2 Units
(Microsoft Dynamics GP)
Prerequisite: Accounting 1A.
Four hours lecture-laboratory (48 hours total per quarter).
Introduction to computerized accounting for service industry. Applications include general ledger setup, accounts payable, accounts receivable and payroll. Course will take advantage of new accounting software being used in industry.

ACCT 88  Excel Spreadsheets for Accounting  2 Units
Prerequisite: Accounting 1A.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 212 or equivalent; Basic knowledge of Excel is highly recommended.
Two hours lecture (24 hours total per quarter).

ACCT 105  Basic Financial Accounting Procedures  1 Unit
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Accounting 1A.
One hour lecture (12 hours total per quarter).
Procedural aspects of accounting; including the accounting equation, analysis of business transactions, debit and credit rules, and aspects of the accounting cycle.

Administration of Justice

ADMJ 1  Introduction to Administration of Justice  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Political Science 10. Students may enroll in either department, but not both, or credit.)
Four hours lecture (48 hours total per quarter).
The history and philosophy of the administration of justice in America. A study of the overall system from its European antecedents and development within the United States; identification of various subsystems and components; their role expectations and interrelationships; basic premise of crime, punishment and rehabilitation; the role of education in the administration of justice within a democracy.

ADMJ 3  Concepts of Criminal Law (CP 2)  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Paralegal 3 and Political Science 13. Students may enroll in only one department for credit.)
Four hours lecture (48 hours total per quarter).
Historical development, philosophy of law and constitutional provisions; definitions, classification of crime, and their application to the system of administration of justice; legal research, study of case law, methodology, and concepts of law as a social force in a multicultural, multiethnic society.

ADMJ 5  Community Relations  4 Units
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).
Examination of interrelationships of Administration of Justice practitioners and multicultural, multiethnic communities.

ADMJ 11  Federal Courts and Constitutional Law  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Paralegal 11 and Political Science 11. Students may enroll in only one department for credit.)
Four hours lecture (48 hours total per quarter).
Federal court procedure and the impact of U.S. Constitutional law on federal and state law. Read and analyze the Constitution. Effect of U.S. Supreme Court cases on current constitutional interpretation.

ADMJ 25  Law and Social Change  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Paralegal 25 and Sociology 25. Students may enroll in only one department for credit.)
Four hours lecture (48 hours total per quarter).
Exploration of the use of law as an instrument for social change. Examination of the relationship between law and social change in cross-cultural settings. Analysis of legislation, case law, the process of conflict resolution and legal institutions as they relate to social change.

ADMJ 29  Cultural Pluralism and American Law  4 Units
and Justice
(Formerly Administration of Justice 58.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as Intercultural Studies 29. Students may enroll in either department, but not both, or credit.)
Four hours lecture (48 hours total per quarter).
An interdisciplinary study of marginalized peoples and their relationship to the law. Examines the legal perspective on cultural diversity in the United States by examining groups based on race, ethnicity, gender, class, religious background, disability, and sexual orientation. Analyzes how these groups interact with mainstream society through American law, concentrating on both historical and contemporary state and federal legislation and court rulings. Analyzes how the courts play a role in determining the status of minority groups. Analyzes the effect of law on cultural pluralism and cultural diversity in the United States.

ADMJ 50  Crime, Correction and Society  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Sociology 50. Students may enroll in either department, but not both, or credit.)
Four hours lecture (48 hours total per quarter).
A legal and sociological approach to understanding the fundamental ideas which have shaped correctional theories and practices. An in-depth study of adult sentencing, prisons, and jail subsystem including institutions by type and function, probation, parole and community based programs. A comprehensive examination of current correctional practices, punishment, rehabilitation, and community treatment programs with an emphasis on issues concerning race, ethnicity and gender.

ADMJ 51  Women in Crime  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Sociology 51. Students may enroll in either department, but not both, or credit.)
Four hours lecture (48 hours total per quarter).
An examination of the changing role of women in crime with emphasis on gender and cultural based differences related to victims, offenders and criminal justice professionals.

ADMJ 53  Criminal Law II  5 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Five hours (60 hours total per quarter).
An advanced course in criminal law emphasizing substantive California statutory criminal codes.

ADMJ 54  Youth and the Law  4 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
(Also listed as Paralegal 54 and Sociology 54. Students may enroll in only one department for credit.)
Four hours lecture (48 hours total per quarter).
A legal and sociological approach to understanding the causes of juvenile delinquency; an examination of race, culture and gender in juvenile delinquency; community responses to delinquency; organization, functions and jurisdiction of both social and legal agencies; processing and detention; case disposition; statutes and court procedures.

ADMJ 55  Alcohol, Narcotics and Drug Abuse  4 Units
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).
Designed to equip public service workers and the community with knowledge of the issues involved in drug abuse, including the history and classification of drugs and the problems facing society and the governing of illegal drug use.

ADMJ 56  Practical Writing for Administration of Justice  4 Units
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).
Designed to acquaint the student with important developments, techniques and applications in the art and science of report writing for criminal justice professionals.
ADMJ 60  Patrol Procedures  4 Units  
Prerequisite: Administration of Justice 75.  
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).  
Responsibilities, techniques, and methods of police patrol. Practical experience in law enforcement techniques.

ADMJ 61  Criminal Investigation  4 Units  
Prerequisite: Administration of Justice 3 or 75.  
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).  
Fundamentals of crime investigation; techniques of crime scene search and recording; collection and preservation of physical evidence; use of scientific aids; modus operandi processes; sources of information; interviewing techniques.

ADMJ 62  Sexual Assault, Police and Community Response  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Psychology 83. Students may enroll in either department, but not both, for credit.)  
Four hours lecture (48 hours total per quarter).  
Societal and psychological aspects of sexual assault, the perpetrators and the victims; practical application of the police investigation, the criminal justice process, and social service intervention.

ADMJ 64  Administration of Justice Internship  1 Unit  
ADMJ 64X  2 Units  
ADMJ 64Y  3 Units  
ADMJ 64Z  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Psychology 83. Students may enroll in either department, but not both, for credit.)  
Four hours laboratory per unit of supervised internship in an authorized office or agency (48 hours total for each unit of credit per quarter). Program of work experience and study in law enforcement, corrections/probation, private security or human services under the supervision of the instructor and agency personnel.

ADMJ 69  Administration of Justice Field Trips  1 1/2 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
Three hours lecture-laboratory (36 hours total per quarter).  
A survey of current conditions in law enforcement, probation, and corrections and visits to adult or juvenile detention and correctional facilities in Northern California.

ADMJ 73  Crime and Criminology  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Sociology 73. Students may enroll in either department, but not both, for credit.)  
Four hours lecture (48 hours total per quarter).  
Introduction to major types of crime and criminal behavior, examining demographics and measurement of crime, theories of causation and victimization, crime prevention and crime control.

ADMJ 74A  Interviewing, Interrogation and Crisis Intervention  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Paralegal 74A and Psychology 74A. Students may enroll in only one department for credit.)  
Four hours lecture (48 hours total per quarter).  
Theories, principles and strategies of tactical and interpersonal communication necessary to interview victims, witnesses, and suspects; crisis intervention strategies for victims and witnesses of crime; communication with individuals from diverse backgrounds with consideration to race, ethnicity, gender, age and special needs.

ADMJ 75  Principles and Procedures of the Justice System  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Paralegal 75 and Political Science 75. Students may enroll in only one department for credit.)  
Four hours lecture (48 hours total per quarter).  
Procedures followed by law enforcement and courts in criminal cases; constitutional principles governing those procedures.

ADMJ 78  Correctional Investigation  4 Units  
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).  
History and development of probation and parole systems, including current practices at the federal, state and local levels. Investigation techniques needed for preparation of pre-sentence investigation reports, use of these reports in the courts, probation and parole supervision, and correctional institutions.

ADMJ 90A  Legal Aspects of Evidence (CP 4)  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Paralegal 90A. Students may enroll in either department, but not both, for credit.)  
Four hours lecture (48 hours total per quarter).  
The origin, development, and content of the rules of evidence; kinds of degrees of evidence and rules governing admisibility of evidence.

ADMJ 95  Overview of American Law  4 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.  
(Also listed as Paralegal 95 and Political Science 95. Students may enroll in only one department for credit.)  
Four hours lecture (48 hours total per quarter).  
Overview of the major substantive areas of American law: Agency, contracts, constitutional law, corporations, criminal law, family law, property, torts, wills and estates.

Anthropology

ANTH 1  Physical Anthropology  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).  
Biological structure and evolution of primates with particular emphasis on Homo sapiens as a culture-bearing animal. Relationships between human and non-human primates; genetic, physical, and cultural variations in living human groups; social organization and gender roles in primate and human societies; and considerations of future human evolution.

ANTH 1L  Physical Anthropology Laboratory  1 Unit  
(See general education pages for the requirement this course meets.)  
Advisory: Anthropology 1 (may be taken concurrently).  
Three hours laboratory (36 hours total per quarter).  
Laboratory course in which the students apply and practice the scientific methods, techniques and procedures used by physical anthropologists to understand human evolution, non-human primates and human variation. Students gain practical experience and a deeper understanding by participating in lab exercises, activities and experiments that explore human evolution, osteology, forensics, genetics, modern human variation, primate anatomy and behavior.

ANTH 2  Cultural Anthropology  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).  
The anthropological approach to the study of human behavior from a cross-cultural, comparative perspective. An exploration into the languages, subsistence, economics, sociopolitical systems, religions, and world views of diverse world cultures. An assessment of the dynamics of culture change and the future prospects for humanity.

ANTH 3  Introduction to Archaeology  4 Units  
(Formerly Anthropology 55.)  
(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).  
Introduction to the field of archaeology within the discipline of anthropology including discussion of scientific methods, the history of archaeology, field and laboratory methods used in the analysis of archaeological data, and theories used to interpret the past. This course explores how archaeologists recover, analyze material and reconstruct ancient cultures and societies. Archaeological ethics and real-world issues concerning looting, collecting, preservation, and the role of indigenous peoples will be examined.

ANTH 4  World Prehistory  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).  
Worldwide patterns of cultural transformation, from the earliest foraging societies to the development of agrarian states. The prehistoric interpretation of these changes based upon the comparison of archaeological evidence from Africa, Asia, Europe, the Middle East, the Americas, and Oceania.
ARTS 1A  Introduction to the Visual Arts  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
An exploration of visual imagery throughout the world, for the purpose of refining visual literacy skills. Works of art will be studied by means of formal analysis as well as by understanding the medium, the social experiences of artists, the function of works of art in their original environment, and comparison of works from different cultures. Primary emphasis will be on paintings, graphic works, and sculpture.

ARTS 1B  Architecture Past and Present  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
An exploration of architecture throughout the world, for the purpose of refining visual literacy skills. Works of architecture will be studied comparatively regarding regard to form and function, and numerous architectural concepts will be examined.

ARTS 2A  History of Art (Europe from Prehistory through Early Christianity)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
An introduction to the discipline of art history through analysis of images, objects, and works of architecture produced from the prehistoric period of European history through approximately the year 600 C.E., including discussion of Stone Age, Mesopotamian, Egyptian, Greek, Etruscan, Roman, and Byzantine cultures.

ARTS 2B  History of Art (Europe During the Middle Ages and the Renaissance)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
An introduction to the discipline of art history through analysis of images, objects, and works of architecture produced from approximately 600 through 1600 C.E., including discussion of Islamic and European cultures during the Middle Ages, and the art of the Renaissance (including Mannerism) in both northern and southern Europe.

ARTS 2C  History of Art (Europe from the Baroque Period through Impressionism)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
An introduction to the discipline of art history through analysis of images, objects, and works of architecture produced from the 1600s to the present, including discussion of numerous European and American cultural groups.

ARTS 2D  History of Art (Europe and the United States from Post-Impressionism to the Present)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
A cross-cultural introduction to American art history which includes interdisciplinary analysis of diverse art forms generated by artists of color, including African Americans, Asian Americans, Native Americans, Latino(a)s/Chicana(o)s, and Americans of non-European heritage. Significant attention will be given to issues considered important by such ethnicity or group as well as issues related to racism, gender, and social class. Traditions, values, and cultural expressions of diverse societies and their contributions to American visual culture are explored.

ARTS 2F  History of Art (Multicultural Arts in the United States)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
A cross-cultural introduction to American art history which includes interdisciplinary analysis of diverse art forms generated by artists of color, including African Americans, Asian Americans, Native Americans, Latino(a)s/Chicana(o)s, and Americans of non-European heritage. Significant attention will be given to issues considered important by such ethnicity or group as well as issues related to racism, gender, and social class. Traditions, values, and cultural expressions of diverse societies and their contributions to American visual culture are explored.

ARTS 2G  History of Art (Arts of Asia)  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
A general introduction to art through major Asian artistic traditions. Focuses upon paintings, sculptures, ceramics, and architecture and their religious, cultural, historical, and social contexts. Examines arts from China, Japan, India, Central Asia, Himalayas, and Southeast Asia and assesses the contributions of Asian art in a global context.

ARTS 2H  History of Art: Native Arts of Mesoamerica and the Andes  4 Units  
Advisory: English Writing 1A or English as a Second Language 5.  
Four hours lecture (48 hours total per quarter).  
A general introduction to the visual arts of the indigenous cultures of Mesoamerica, an area extending from northern Mexico through Central America, and the Andean region of South America. This course covers diverse art forms, including architecture, ceramics, weaving, painting and sculpture from antiquity to the present with emphasis on historical, cultural, and social contexts.
ARTS 2J History of Art: Arts of Africa, Oceania and Native North America 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as International Studies 22. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter). A general introduction to some of the many indigenous art traditions around the world, with emphasis placed upon traditional arts created for use in small-scale communities from the Americas, South Pacific region and Africa. Diverse art forms covered will include sculpture, painting, performance, ceramics, textiles and architecture from antiquity through the colonial period to the present. Topics addressing the religious, cultural, social, economic and political contexts of the art will be explored. Compares arts from indigenous peoples to other world art traditions and assesses the contributions of indigenous arts in a global context.

ARTS 2K History of Art: Visual Arts of Islam 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as International Studies 23. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
An exploration of the visual arts of Islam in a global context, including comparative analysis of the arts from diverse regions of the Islamic world. Examines artistic traditions of calligraphy, miniature painting, textiles, decorative arts and architecture from the beginnings of the Islamic faith to the present, and Islamic contributions to world art history. Includes interdisciplinary analysis of Islamic visual arts, emphasizing the cultural and religious contexts, as well as issues related to gender and social class.

ARTS 2L History of Art: Visual Arts of Africa 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as International Studies 24. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
A general introduction to the visual arts of Africa, covering diverse art forms, including sculpture, painting, performance, ceramics, textiles and architecture from antiquity through the colonial period to the present. Topics addressing the religious, cultural, social, economic and political contexts of the art will be explored. Compares arts from Africa to other world art traditions and assesses the contributions of African arts in a global context.

ARTS 3TC Women and Art 4 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
(Also listed as Women's Studies 3C. Students may enroll in either department, but not both, for credit.)
Four hours lecture (48 hours total per quarter).
A history of women's relation to society and the visual arts from prehistory to the present. Social perceptions and obstacles relevant to women artists will be discussed, and students will engage in cross-cultural comparison of works produced in western and non-western cultures made by women, and in which women serve as subject matter.

ARTS 3TD American Art: Public and Private 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 the discipline of art history through analysis of art in the United States which emphasizes discussion of paintings, sculpture, and works of architecture produced for both public and private purposes, from the seventeenth century to the present day.

ARTS 3TE Today's Art Scene 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).
Focuses on the issues and challenges facing today's working artists. Topics include: the roots of international contemporary art, technological influences on current art practices, and the essential components for assembling a dynamic portfolio presentation.

ARTS 4A Beginning Drawing 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 8.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Drawing Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
An introductory course exploring the basic elements and principles of observational drawing, using traditional and experimental media.

ARTS 4B Intermediate Drawing 3 Units
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 8.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Drawing Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
An intermediate drawing course focusing on the creative interpretation of subject matter utilizing a variety of experimental, as well as traditional, techniques and media.

ARTS 4C Life Drawing 3 Units
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 4B, 4D and 8.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Drawing Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
A beginning drawing course focusing on the representation and interpretation of the human figure; with attention to drawing from life.

ARTS 4D Representational Drawing 3 Units
Formerly Arts 74.
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 4C.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Drawing Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
A comprehensive introduction to transparent watercolor painting with emphasis on volume and perspective in a variety of drawing media.

ARTS 8 Two-Dimensional Design 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
A foundation course in the use of fundamental design elements and principles for two-dimensional art.

ARTS 10A Three-Dimensional Design 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent.
Six hours lecture-laboratory (72 hours total per quarter).
Introduction to design elements and principles as they apply to three-dimensional space and form. Idea explorations in various media including wire, clay, plaster, paper, wood metals and found objects.

ARTS 10B Intermediate Three-Dimensional Design 3 Units
Prerequisite: Arts 10A.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent.
Six hours lecture-laboratory (72 hours total per quarter).
Further exploration and continuation of three-dimensional design focusing on individual projects. Use of various materials including wood, metals, plastic sheet and resin. Introduction of mold making and casting.

ARTS 12 Design and Color 3 Units
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
A fundamental course exploring theory and color in the visual arts.

ARTS 14A Watercolor Painting I 3 Units
(Formerly Arts 14.)
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
A comprehensive introduction to transparent watercolor painting with emphasis on basic techniques.

ARTS 14B Watercolor Painting II 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.
A continuation of Arts 14A with further emphasis on basic transparent watercolor techniques that relate to the unusual characteristics of the medium, including the use of watercolor pencils.

All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
ARTS 14C Watercolor Painting III 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
A continuation of Arts 14B with emphasis on transparent and opaque watercolor techniques. Assignments in class will explore the aesthetic concerns of developing styles, ideas, content and self expression within the watercolor medium.

ARTS 15A Acrylic Painting I 3 Units
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
An introductory course in acrylic painting with emphasis on basic techniques in both traditional and contemporary techniques that relate to the unusual characteristics of the medium.

ARTS 15B Acrylic Painting II 3 Units
Prerequisite: Arts 15A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
A continuation of Arts 15A with further emphasis on basic techniques that relate to the unusual characteristics of the medium. Surfaces other than canvas will be introduced allowing for more varied results.

ARTS 15C Acrylic Painting III 3 Units
Prerequisite: Arts 15B.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
A continuation of Arts 15B with emphasis on processes rather than techniques. Problems in class will relate to aesthetic concerns of idea, content and expression within the acrylic medium.

ARTS 16A Oil Painting I 3 Units
Prerequisite: Arts 4A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
An introductory oil painting course exploring the application of the medium as it relates to the production of artwork through the translation of visual information. Preparation, concept and craft are fundamental as applied to aesthetic concerns.

ARTS 16B Oil Painting II 3 Units
Prerequisite: Arts 16A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
A continuation of Arts 16A with further emphasis on basic techniques that relate to the unusual characteristics of the medium. Conceptual studies, color theory and aesthetics are primary concerns. Surfaces other than canvas will be required.

ARTS 16C Oil Painting III 3 Units
Prerequisite: Arts 16B.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Painting Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
A continuation of Arts 16B with emphasis on processes rather than techniques. Primary concerns include shaped canvasses, glazing techniques, ideas, expression, and aesthetics relating to the oil medium.

ARTS 17 Introduction to Muralism: Democracy in Action 3 Units
(Formerly Arts 64.)
Advisory: English Writing 1A or English as a Second Language 5.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Arts - Professional Practice Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Explores the application of traditional mural making processes and techniques in combination with the practices of building community through civic engagement. Examines the connection between the arts and community and the role they can play in building bridges and strengthening democratic practices.

ARTS 18A Ceramics 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Survey of ceramic construction techniques. Use of surface decoration, glazes and ceramic kiln firing.

ARTS 18B Ceramics (Beginning Wheel Throwing) 3 Units
Prerequisite: Arts 18A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Beginning techniques of throwing on the potter's wheel. Forming, shaping, trimming and decorating basic wheel thrown pieces. Use of stoneware firing techniques and processes in Ceramics (Arts 18A).

ARTS 18C Ceramics (Intermediate Wheel Throwing) 3 Units
Prerequisite: Arts 18B.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Intermediate techniques of throwing on the potter's wheel. Forming, shaping, trimming and surface development of intermediate wheel thrown pieces. Builds upon throwing techniques and processes in Ceramics (Beginning Wheel Throwing) - (Arts 18B).

ARTS 18D Ceramics Hand Building 3 Units
(Formerly Arts 66D.)
Prerequisite: Arts 18A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Ceramic construction techniques: use of pinch, coil and slab processes. Use of a variety of clay bodies and various firing techniques associated with functional and non-functional ceramic work.

ARTS 18E Ceramics (Advanced Wheel Throwing) 3 Units
(Formerly Arts 80.)
Prerequisite: Arts 18C.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Advanced techniques of throwing on the potter's wheel. Introduction to combined forms and developing the vessel as an aesthetic object. Development of shapes, function and individual expression with clay.

ARTS 19H Ceramics Raku 3 Units
Prerequisite: Arts 18A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Surface Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Historical development, firing techniques, glaze, kilns and clay-bodies, for the Raku ceramic process.

ARTS 19I Ceramics Sculpture 3 Units
Prerequisite: Arts 18D.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Surface Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Use of clay as a sculptural and expressive medium: texture, surface, dimension and form.

ARTS 19J Ceramics Techniques 3 Units
Prerequisite: Arts 18B.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Surface Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Techniques of hand building and wheel construction combined: experimental glazing and texturing treatments.
ARTS 19K Ceramics Decoration 3 Units
Prerequisite: Arts 18B.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Surface Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Survey of earthenware and refinement used in the production of stoneware, earthenware and porcelain.

ARTS 19M Ceramics Low Fire 3 Units
Prerequisite: Arts 18A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Surface Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Survey of earthenware as a ceramic material. Use of surface decoration, glazes and ceramic kiln firing.

ARTS 19N Ceramics Porcelain 3 Units
(Formerly Arts 64N.)
Prerequisite: Arts 18B.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Survey of porcelain as a ceramic material. Use of surface decoration, glazes and ceramic kiln firing.

ARTS 20 Ceramics Individual Laboratory 2 Units
Prerequisite: Arts 18D or Arts 18E.
Six hours laboratory (72 hours total per quarter).
(This course is included in the Ceramic Construction Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Supervised use of ceramic studio equipment for independent skill development; hand building, wheel throwing and kiln firing.

ARTS 37A Sculpture 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Sculpture Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Beginning sculpture, with an emphasis on idea development, visual investigation and the sculpture making process, including construction, carving, casting and mixed media.

ARTS 37B Intermediate Sculpture 3 Units
Prerequisite: Arts 37A.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Sculpture Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Intermediate sculpture with emphasis on further formulation of idea development, visual investigation and its making process. Additional materials and processes will be examined.

ARTS 37C Advanced Sculpture 3 Units
Prerequisite: Arts 37B.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Sculpture Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Advanced sculpture with an emphasis on idea development, visual investigation and the sculpture making process. Additional materials and processes will be examined and demonstrated.

ARTS 53A Introduction to Visual Technology 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 8.
Six hours lecture-laboratory (72 hours total per quarter).
A survey of the computer based electronic technology used by visual artists and designers. Student projects explore the creative potential of basic program options and experience how each relates to today’s electronic media environment. Introductory use of Adobe Photoshop, Adobe Illustrator, Adobe Flash and Adobe InDesign.

ARTS 53B Introduction to Visual Technology II 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 53A.
Six hours lecture-laboratory (72 hours total per quarter).
Introductory use of art and design software for the computer. Emphasis on the creative process and the computer as a tool used by artists and designers today. Software used is Adobe Photoshop.

ARTS 55A Graphic Design-Communication I 3 Units
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Arts 53A.
Six hours lecture-laboratory (72 hours total per quarter).
The analysis and interpretation of the elements and principles of design as applied to the practice of graphic design and visual communication. Emphasis on the design process from visualization to production. Software used includes Adobe Photoshop, Adobe Illustrator and Adobe InDesign.

ARTS 55B Graphic Design-Communication 3 Units
Prerequisite: Arts 55A or instructor approval.
Six hours lecture-laboratory (72 hours total per quarter).
Continuation of the analysis and interpretation of the elements and principles of design as applied to the practice of graphic design and visual communication. Emphasis on the design process from visualization to production techniques. Software used includes Adobe Photoshop, Adobe Illustrator and Adobe InDesign.

ARTS 55C Graphic Design-Communication: Production Techniques 3 Units
Prerequisite: Arts 55B or instructor approval.
Six hours lecture-laboratory (72 hours total per quarter).
Intermediate course in the preparation of art for reproduction on the printed page, interactive media, and the World Wide Web. Emphasis is placed on specific studio procedures as well as computer production alternatives used by professionals in the field of graphic design. Software used includes Adobe Photoshop, Adobe Illustrator, Adobe InDesign and Adobe Flash.

ARTS 56 Graphic Design/Page Layout for Electronic Publishing 3 Units
Prerequisite: Arts 53A.
Six hours lecture-laboratory (72 hours total per quarter).
Analysis and interpretation of the elements and principles of design as applied to the use of typography in graphic design. Emphasis on the integration and selection of letter forms and type styles as they relate to the production for the printed page, multimedia design and the World Wide Web. Software used includes Adobe Photoshop, Adobe Illustrator and Adobe InDesign.

ARTS 57 Graphic Design-Communication: Typography 3 Units
Prerequisite: Arts 53A.
Six hours lecture-laboratory (72 hours total per quarter).
Interpretation of the elements and principles of design as applied to the use of typography in graphic design. Emphasis on the integration and selection of letter forms and type styles as they relate to the production for the printed page, multimedia design and the World Wide Web. Software used includes Adobe Photoshop, Adobe Illustrator and Adobe InDesign.

ARTS 58A Furniture Design 3 Units
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Industrial Design Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Beginning furniture design with emphasis on developing basic skills in design, construction and craftsmanship.

ARTS 58B Intermediate Furniture Design 3 Units
Prerequisite: Arts 58A.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
(This course is included in the Industrial Design Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)
Intermediate furniture design, with an emphasis on a broader range of skills in design, construction and craftsmanship.

ARTS 58C Advanced Furniture Design 3 Units
Prerequisite: Arts 58B.
Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Mathematics 210 or equivalent; Arts 10A.
Six hours lecture-laboratory (72 hours total per quarter).
Advanced furniture design, with an emphasis on individual projects and further development on skills in design, construction and craftsmanship.

ARTS 59 History of Graphic Design 4 Units
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 history of word and image from the Industrial Revolution, through the Modernist Era and the Information Age. Emphasis is placed on the impact of industrial technology and All courses are for unit credit and apply to a De Anza associate degree unless otherwise noted.
in the first half of the Twentieth Century and the importance of graphic design in the global village. Topics will include the origins of printing and typography in the industrial age and postmodern design.

**ARTS 63** Business Practices for Graphic Designers

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

Three hours lecture (56 hours total per quarter). Introduction to the range of business practices used by artists and designers in the visual communications industry. Emphasis will be placed on legal rights and issues as they relate to the professional artist/client relationship. Topics will include pricing and marketing, salaries and trade customs, standard contracts, and new technology issues.

**ARTS 65** Graphic Design for the World Wide Web

Prerequisite: Arts 53A.

Six hours lecture-laboratory (72 hours total per quarter).

Hands on Web page design fundamentals with an emphasis on the creative integration of type and image as related to the World Wide Web. Topics will include: navigation software, site content and organization, site layout, scanning and importing imagery, file formats, grids, white space, visual hierarchy, corporate identity/branding and typography issues. The primary software programs used are Adobe Photoshop CS and Adobe Illustrator CS.

**ARTS 70** Viewing Bay Area Art Museums and Galleries

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 Arts - Professional Practice Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.

Designed to develop skills in art gallery/museum viewing and critical analysis of content of exhibits, collections and/or lectures.

**ARTS 71** Gallery and Exhibition Design

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Arts 4A or 8.

Six hours lecture-laboratory (72 hours total per quarter).

(This course is included in the Arts - Professional Practice Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)

The practical experience in all aspects of exhibition design and installation of art exhibits in galleries and museums. Emphasis on design theory and the evaluation and analysis of the communicative, cultural, aesthetic, technical factors involved in the production of exhibits.

**ARTS 72** Internship in Art

Advisory: English Writing 200 and Reading 200 (or Language Arts 200), or English as a Second Language 261, 262 and 263; Arts 1A, 4A, 8, 10A, and 71.

Three hours laboratory (36 hours total per quarter).

(This course is included in the Arts - Professional Practice Family of activity courses. Please see Course Repetition, Repeatability and Families page for more information.)

Directed professional experience in art museums/galleries, art businesses, and art in schools programs in the Bay Area that emphasize the application of skills and knowledge obtained in Gallery and Exhibition Design (Arts 71), Beginning Drawing (Arts 4A), Two-Dimensional Design (Arts 8), and Three-Dimensional Design (Arts 10A).

**ARTS 85** Motion Graphics

Prerequisite: Arts 55B.

Also listed as Film/Television 85. Students may enroll in either department, but not both, for credit.

Six hours lecture-laboratory (72 hours total per quarter).

The analysis and interpretation of the art and design involved in the production of graphic design to be viewed in non-print media (film, CRT & LCD screens). The creative integration of “type” and “image” in motion is stressed through the use of directed laboratory exercises. Primary software presented is Adobe After Effects. Other software used includes Adobe Photoshop, Adobe Illustrator and Adobe Flash.

**ARTS 86** Electronic Illustration Techniques

Prerequisite: Arts 53A.

Six hours lecture-laboratory (72 hours total per quarter).

Introduction to industry standard software related to the creation and implementation of computer generated illustration. Emphasis is placed on verbal visual relationships and the integration of type and image in contemporary illustration. Topics will include: illustration software options, concept and problem solving, style and personal expression, packaging illustration, charts/diagrams/graphs, and 3D illustration dynamics. The primary software programs presented is Adobe Illustrator CS. Adobe Photoshop CS will also be used.

**Astronomy**

**ASTR 4** Solar System Astronomy

5 Units

(Same general education pages for the requirement this course meets.) Advisory: English Writing 1A or English as a Second Language 5.

Five hours lecture (60 hours total per quarter).

Analyze the physical principles, logic, and development of solar system astronomy from ancient times through the present. Examine earth and sky relationships, exploration of the solar system by spacecraft and earth-based methods, similarities and differences between Earth and other planets, theories of the origin of our planetary system, and properties of other stars' planetary systems. Includes multimedia planetary demonstrations.

**ASTR 10** Stellar Astronomy

5 Units

(Same general education pages for the requirement this course meets.) Advisory: English Writing 1A or English as a Second Language 5.

Five hours lecture (60 hours total per quarter).

Analyze the physical principles, logic, and development of stellar astronomy from ancient times to the present, with emphasis on recent developments. Examine the relationship of Earth to its deep-space environment and contrast the Sun to other types of stars. Synthesize the organization in space and time of the hierarchy of the cosmos from stellar systems through the universe on its largest observable scale, and investigate the observational strategies and equipment that are used to investigate it.

**ASTR 15** Astronomy Laboratory

1 Unit

(Same general education pages for the requirement this course meets.)

Prerequisite: Astronomy 4 or 10 (may be taken concurrently).

Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or equivalent.

Three hours laboratory (36 hours total per quarter).

Introductory astronomy lab in which students use astronomical techniques, data, and software to evaluate hypotheses about the physical universe. Areas of investigation include our solar system and the extrasolar planets, as well as stars, galaxies, and the evolution of the universe.

**ASTR 77** Special Projects in Astronomy

1 Unit

2 Units

3 Units

Prerequisite: Consent of instructor and division dean.

Three hours laboratory for each unit of credit (36 total hours for each unit of credit per quarter).

Pass-No Pass (P-NP) course.

Individual research in Astronomy. Specific projects to be determined in consultation with the instructor. Outside reading and written report(s) required. These projects are on topics not covered in the regular Astronomy curriculum and require the approval of the PSM&E Division Dean.

**Automotive Technology**

**AUTO 50** Introduction to Automotive Principles

4 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.

Four hours lecture (48 hours total per quarter).

A selective study of the automobile's engine systems. Knowledge and skills necessary for basic repair, maintenance, and troubleshooting of today's engine systems. May be used to fulfill the prerequisite to the Automotive Technology Program.

**AUTO 50B** Applied Automotive Principles

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; Automotive Technology 50A (may be taken concurrently).

Four hours lecture-laboratory (48 hours total per quarter).

Basic lecture-laboratory experiences in automotive repair and maintenance as related to the engine and its supporting systems.

**AUTO 51** Introduction to Automotive Principles - Chassis Systems

4 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.

Four hours lecture (48 hours total per quarter).

A selective study of the automobile's chassis and drive line systems. Knowledge and skills necessary for basic repair, maintenance, and troubleshooting of today's chassis and drive line systems. Can be used to fulfill the prerequisite to the Automotive Technology Program.

**AUTO 51B** Applications of Automotive Principles - Chassis Systems

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; Automotive Technology 51A (may be taken concurrently).

Four hours lecture-laboratory (48 hours total per quarter).

Basic lecture-laboratory experiences in automotive repair and maintenance as related to: suspension, steering, braking and drive line components.
AUTO 53A  Automotive Mechanisms  3 Units  
Prerequisite: Approved Automotive Technology Course Sequence Contract.  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.  
Six hours lecture-laboratory (72 hours total per quarter).  
The application of physical principles to the operation of mechanical and hydraulic systems, using an applied physics technique.

AUTO 53B  Automotive Electromechanical Systems  2 Units  
Prerequisite: Approved Automotive Technology Course Sequence Contract.  
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-laboratory (48 hours total per quarter).  
Principles of electricity, electronics, circuits, cranking and charging systems. Testing, diagnosis and repair of these systems.

AUTO 57A  Career Research and Employment in the Automotive Industry  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).  
Career research in the automotive industry. Search, applications and resumes, employer-employee relationships, job interviews.

AUTO 60  Automotive Electrical Systems  9 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; Automotive Technology 50A and 50B.  
Nine hours lecture (108 hours total per quarter).  
Principles of electricity, electronics, circuits, cranking and charging systems. Testing, diagnosis and repair of these systems.

AUTO 60A  Electrical Schematic Diagnosis  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; Automotive Technology 60.  
Four and one-half hours lecture (54 hours total per quarter).  
Theory and application of electrical, electronic, and electromechanical accessory systems. Understanding and using wiring diagrams, schematics, and other diagnostic information to troubleshoot electrical, electronic, and electromechanical systems. Preparation for Automotive Service Excellence (ASE) examination in Areas A6, A8 and L1.

AUTO 60B  Automotive Electronics  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; Automotive Technology 50A, 50B, 60, 60A and 60B.  
Four and one-half hours lecture (54 hours total per quarter).  
Application of computer control principles to automotive systems. Operation of automotive electronic control systems, including commonly used sensors, actuators, and displays. Introduction to diagnostic methods and test equipment for automotive electronic control systems. Preparation for Automotive Service Excellence (ASE) examination in Areas A6, A8 and L1.

AUTO 60C  Automotive Ignition, Fuel and Emission Systems  9 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; Automotive Technology 50A, 50B, 60, 60A, 60B and 60C.  
Nine hours lecture (108 hours total per quarter).  

AUTO 60D  Ignition Analysis and Oscilloscope Diagnosis  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; Automotive Technology 50A, 50B, 60, 60A, 60B and 60C.  
Four and one-half hours lecture (54 hours total per quarter).  
Ignition system principles of operation and diagnosis. Use of electronic test equipment in ignition system diagnosis. Preparation for Automotive Service Excellence (ASE) certification examinations in Areas A8, A8 and L1.

AUTO 60E  Automotive Fuel Injection  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; Automotive Technology 50A, 50B, 60, 60A, 60B, 60C and 60D.  
Four and one-half hours lecture (54 hours total per quarter).  

AUTO 60F  No-Start Diagnosis  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; Automotive Technology 50A, 50B, 60, 60A, 60B, 60C, 60D and 60E.  
Four and one-half hours lecture (54 hours total per quarter).  
Principles of troubleshooting procedures and techniques to analyze and repair of “no-start” problems in the fuel, ignition, and electrical systems of an automobile. Preparation for Automotive Service Excellence (ASE) examination in Areas A6, A8 and L1.

AUTO 60G  Advanced Scan Tool Diagnosis  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; Automotive Technology 50A, 50B, 60, 60A, 60B, 60C, 60D and 60E.  
Four and one-half hours lecture (54 hours total per quarter).  

AUTO 60H  Advanced Drivability and Onboard Diagnostics  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; Automotive Technology 50A, 50B, 60, 60A, 60B, 60C, 60D, 60E, 60F and 60G.  
Four and one-half hours lecture (54 hours total per quarter).  

AUTO 60J  Advanced Lab Scope and Waveform Diagnosis  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; Automotive Technology 50A, 50B, 60, 60C, 60D, 60E, 60F and 60G.  
Four and one-half hours lecture (54 hours total per quarter).  
Diagnosis of automotive electronic systems using a laboratory oscilloscope and a  power graphing meter. Related use of other basic test equipment, including a digital multimeter and scan tool. Advanced waveform analysis. Preparation for Automotive Service Excellence (ASE) examination in Areas A6, A8 and L1.

AUTO 60K  Automotive Body Electrical 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; Mathematics 212 or equivalent; Automotive Technology 60A and 60B.  
Four and one-half hours lecture (54 hours total per quarter).  

AUTO 60M  Hybrid Electric Vehicles  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; Automotive Technology 60A and 60G.  
Four and one-half hours lecture (54 hours total per quarter).  

AUTO 60N  Hybrid Vehicle Safety and Maintenance  2 Units  
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 210 or 212 or equivalent; Automotive Technology 60A and 60B.  
Two hours lecture (24 hours total per quarter).  
Explores the use of hybrid electric power for vehicle transportation. Topics will include: safety, maintenance of hybrid propulsion and internal combustion systems, drivability, and storage battery technology. Various designs of hybrid vehicles and their integrated systems from multiple manufacturers will be discussed. This course also fulfills the Toyota Technician Program 60A, 60B, Network training requirement for the T-256 course. This course is suitable for students interested in alternative fuels or power and energy technology.
AUTO 61A Automotive Brake 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; Mathematics 212 or equivalent; Automotive Technology 51A and 51B.
Four and one-half hours lecture (54 hours total per quarter).
Operation of automotive brake systems. Repair, maintenance and troubleshooting.

AUTO 61B Electronically Controlled Brake 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; Mathematics 212 or equivalent; Automotive Technology 61A.
Four and one-half hours lecture (54 hours total per quarter).
Computer controlled automotive brake systems, including service, maintenance, troubleshooting and repair procedures.

AUTO 62A Automotive Suspension, Steering and Alignment 9 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; Automotive Technology 50A and 50B.
Nine hours lecture (108 hours total per quarter).
Operation of automotive suspension, steering and alignment systems. Overview of maintenance, repair and troubleshooting procedures.

AUTO 62B Advanced Wheel Alignment 9 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.
Nine hours lecture (108 hours total per quarter).
Advanced study of wheel alignment systems. Emphasis is placed on diagnostic inspection and repair procedures.

AUTO 63 Automatic Transmissions and Transaxles 9 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; Automotive Technology 50A and 50B.
Nine hours lecture (108 hours total per quarter).

AUTO 63A Advanced Manual Drive Train 9 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; Automotive Technology 50A and 50B.
Nine hours lecture (108 hours total per quarter).
Details of operation and repair of automotive manual drive train components. The design operation and repair of four wheel and all wheel drive components, as well as the theory and practical application of the diagnosis of noise and vibrations in the drive train based on frequency calculation and measurement. Service and repair procedures, product problem discussions and demonstrations. Preparation for Automotive Service Excellence (ASE) certification examination in Area A3.

AUTO 63B Automatic Transmission 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; Automotive Technology 50A and 50B.
Four and one-half hours lecture (54 hours total per quarter).

AUTO 63C Automotive Transaxles 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; Automotive Technology 50A and 50B.
Four and one-half hours lecture (54 hours total per quarter).

AUTO 63D Transmission Diagnostic and Repair 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; Automotive Technology 50A and 50B.
Four and one-half hours lecture (54 hours total per quarter).
Diagnostic and repair techniques for automatic transmissions and transaxles. Emphasis on development of diagnostic procedures and repair techniques. Preparation for Automotive Service Excellence (ASE) certification examinations in Areas A2 and A3.

AUTO 64 Automotive Machining and Engine Repair 9 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; Automotive Technology 50B.
Nine hours lecture (108 hours total per quarter).
Repair and rebuilding of engine cylinder heads and block components, engine assembly and testing. Includes theory, diagnosis, disassembly, cleaning, inspection and failure analysis. Preparation for Automotive Service Excellence (ASE) examinations for Areas A1 and M1, M2 and M3.

AUTO 64G Introduction to Automotive and Light Truck Diesel 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; Mathematics 212 or equivalent; Automotive Technology 50A and 50B.
Four and one-half hours lecture (54 hours total per quarter).
As of January 2010, California state law required light duty diesel powered vehicles to be included in the smog check program. Diesel’s higher efficiency is moving these vehicles’ highway mileage to over 40 miles per gallon. Chevrolet, Jeep and Mazda are all adding diesel powered vehicles into their new car line-up. This course will consist of lectures and laboratory demonstrations. Providing our students with the necessary skills to maintain and repair light duty diesel vehicles. Diesel training will give students new abilities that are required to be successful in their careers in the automotive industry.

AUTO 64HP High Performance Engine Preparation 9 Units
Advisory: Automotive Technology 64; English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Nine hours lecture (108 hours total per quarter).
Precision and performance engine preparation. Includes selection and matching of engine and valve train components for maximum efficiency and output.

AUTO 65P Clean Air Car Course 7 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.
Seven hours lecture (84 hours total per quarter).
Automotive technician training program for California's Inspection and Maintenance Program (I&M Program). Course content is mandated by the BAR.

AUTO 65W Advanced Clean Air Car Course 2 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.
Two and one-half hours lecture (30 hours total per quarter).
Automotive technician training program for California's Inspection and Maintenance Program (I&M Program). Course content is mandated by the BAR.

AUTO 66 Automotive Air Conditioning 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.
Four and one-half hours lecture (54 hours total per quarter).
Operation and service of automotive air conditioning refrigeration and electrical control systems. Includes retrofitting. Emphasis on diagnosis and repair of systems. Preparation for Automotive Service Excellence (ASE) certification examination in Area A7.

AUTO 68X Smog Check Update 1 Unit
AUTO 68Y 1 1/2 Units
AUTO 69Z 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; Current CA Smog Check License.
One hour lecture for each unit of credit (12 hours total for each unit of credit per quarter).
Legally mandated course by the California Bureau of Automotive Repair (BAR) to obtain a renewal Smog Check License every two years. This applies to all State Licensed Smog Check Technicians. The latest Smog Check Program changes and updates will be covered. The State Smog Check License renewal examination will be given at the end of the course. The BAR will specify the number of units required during each two year cycle.

AUTO 91A Automotive Brake Systems 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent; Automotive Technology 50A and 50B.
Ten hours lecture-laboratory (120 hours total per quarter).
Repair, maintenance and troubleshooting of automotive braking systems.
AUTO 91B Active Brake Systems 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 91A.
Ten hours lecture-laboratory (36 hours total per quarter).
Operation of ABS, anti-lock systems, and other braking systems.

AUTO 92A Automotive Steering and Suspension 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92A.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of suspension and steering systems.

AUTO 92B Automotive Alignment 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92A.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of suspension and steering systems.

AUTO 92C Automotive Electronic Chassis Controls 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92B.
Three hours lecture-laboratory (36 hours total per quarter).
Operation of electronic control systems and components.

AUTO 92D Uni-Body Alignment 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92C.
Three hours lecture-laboratory (36 hours total per quarter).
Operation of uni-body alignment systems.

AUTO 93A Automotive Final Drive Train 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92C.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of final drive train components and service procedures.

AUTO 93B Standard Transaxles 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92B.
Three hours lecture-laboratory (36 hours total per quarter).
Operation of standard transaxle systems.

AUTO 93C Automatic Transmissions 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92B.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of automatic transmissions and components.

AUTO 93D Automatic Transaxles 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92C.
Three hours lecture-laboratory (36 hours total per quarter).
Operation of automatic transaxle systems.

AUTO 93E Diagnostic Techniques 1 Unit
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92B.
Two hours lecture-laboratory (24 hours total per quarter).
Operation of diagnostic tools and techniques.

AUTO 93F Automotive Transmission Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Automotive Technology 92C.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of automatic transmissions and components.

AUTO 94A Principles of Four Stroke Cycle Gas and Diesel Engines 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (150 hours total per quarter).
Study of internal combustion engines and related systems.

AUTO 94B Automotive Machining and Engine Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of engine components and systems.

AUTO 94C Automotive Machining and Engine Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of engine components and systems.

AUTO 94D Automotive Machining and Engine Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of engine components and systems.

AUTO 94E Automotive Machining and Engine Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of engine components and systems.

AUTO 94F Automotive Machining and Engine Service 5 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Ten hours lecture-laboratory (120 hours total per quarter).
Operation of engine components and systems.

AUTO 94G Automotive Charging, Ignition and Accessory Systems 6 1/4 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half lecture-laboratory (150 hours total per quarter).
Operation of charging, ignition, and accessory systems.

AUTO 95A Automotive Electricity, Battery and Cranking Systems 6 1/4 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract; Advisory: English 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent.
Twelve and one-half lecture-laboratory (150 hours total per quarter).
Operation of electrical systems and components.

AUTO 96A Automotive Technology 51A and 51B 3 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Three hours lecture-laboratory (36 hours total per quarter).
Operation of automotive charging systems and components.

AUTO 99A Automotive Technology 92D 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Operation of vehicle emission systems.

AUTO 99B Automotive Technology 92E 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Operation of vehicle emission systems.

AUTO 99C Automotive Technology 92F 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Operation of vehicle emission systems.

AUTO 99D Automotive Technology 92G 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Operation of vehicle emission systems.

AUTO 99E Automotive Technology 92H 1 1/2 Units
Prerequisite: Approved Automotive Technology Course Sequence Contract.
Operation of vehicle emission systems.
AUTO 99C Introduction to Engine Performance Systems 6 1/4 Units
Prerequisite: Automotive Technology 99A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent. Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
Electronically controlled automotive systems. Fundamentals of automotive microprocessors and automotive onboard computers. Testing techniques for system input and output devices. Diagnosis, troubleshooting, and repairing the automotive fuel supply system including carburetion and feedback carburetion. Diagnosis, troubleshooting, and repair techniques for no-start conditions. Procedure development for analyzing and repairing common problems of fuel, ignition, electrical and basic engine mechanical systems which affect engine performance of the automobile.

AUTO 99D Intermediate Engine Performance Systems 6 1/4 Units
Prerequisite: Automotive Technology 99A.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent. Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
Electronically controlled engine performance systems. Diagnosing, troubleshooting and repairing the automotive fuel-injection systems of domestic automobiles. Testing techniques for system input and output devices using automotive scanners and oscilloscopes.

AUTO 99E Basic Engine Performance Diagnostic Procedures 6 1/4 Units
Prerequisite: Automotive Technology 99C.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent. Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
Automotive technician training program to include each system which aids in increasing fuel economy and in the reduction of emissions and pollutants from the automobile. Diagnosing and troubleshooting the systems controlling automotive performance and driveability.

AUTO 99F Intermediate Engine Performance Diagnostic Procedures 6 1/4 Units
Prerequisite: Automotive Technology 99C.
Advisory: English Writing 211 and Reading 211 (or Language Arts 211), or English as a Second Language 272 and 273; Mathematics 212 or equivalent. Twelve and one-half hours lecture-laboratory (150 hours total per quarter).
Performance tuning of automotive gasoline engines. Emphasis on reference material dealing with repair procedures, specifications, and efficient tune-up procedures. Intermediate level for usage of computer scanners and oscilloscopes. Diagnosing, troubleshooting and repairing the systems designed for the control of engine temperature.

Biology

Biol 5 Biology of Birds 5 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, three hours laboratory (84 hours total per quarter).
A general introduction to the biology of birds and the relationships between birds and people around the world. Examines general avian anatomy and physiology with emphasis on diversity and bird identification and the ecology, behavior and conservation of selected bird species.

Biol 6A Form and Function in the Biological World 6 Units
(See general education pages for the requirement this course meets.)
Advisory: A satisfactory score on the Chemistry Placement Exam or a grade of C or better in either Chemistry 1A or 50.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Introduction to biology and scientific methods for students beginning the biology major series. Study of structure and physiological processes of living organisms, with an emphasis on plants and animals.

Biol 6B Cell and Molecular Biology 6 Units
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5; Mathematics 114 or equivalent.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Introduction to cellular structure and function, biological molecules, bioenergetics, molecular genetics, and cell proliferation. The laboratory includes extensive hands-on experimentation in molecular biology.

Biol 6C Ecology and Evolution 6 Units
(See general education pages for the requirement this course meets.)
Advisory: Biology 6A and 6B, with a grade of C or better.
Four hours lecture, six hours laboratory (120 hours total per quarter).
Principles of ecology and evolution. Includes ecology of populations, communities, ecosystems and biomes as well as evolution of populations, and the origin of species and higher taxa. The laboratory portion of the course includes a research project designed, researched and presented by students.

Biol 8 Biology of Women 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).
Designed for non-science majors to explore women’s anatomical and physiological characteristics and their management for good health. The emphasis is on the biological processes and principles organizing a “typical” female life progression, with a secondary focus on the structural and functional dimorphism of human body systems. It also aims at recognizing components of the scientific process distorted in the historical view of women and the impact that societal and cultural biases have on behavior and on female health issues.

Biol 10 Introductory Biology 5 Units
(Not open to students who have completed Biology 6A, 6B, 6C or equivalent.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to biology as a branch of the biological sciences and to its basic unifying principles, with selected application to the scientific method, evolutionary concepts, genetic modification, biotechnology, ecology, ecological crises and human impacts.

Biol 11 Human Biology 5 Units
(Not open to students who have completed Biology 6A, 6B, 6C or equivalent.)
(See general education pages for the requirement this course meets.)
Advisory: English Writing 1A or English as a Second Language 5.
Four hours lecture, three hours laboratory (84 hours total per quarter).
A general introduction to biology and its principles, emphasizing the biology of humans. The course will cover the unifying principles of biology, with emphasis on the basic anatomy and physiology of the human body, as well as on contemporary health issues and their impacts on cultural, ethnic and gender groups.

Biol 13 Marine Biology 5 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, three hours laboratory (84 hours total per quarter).
Introduction to physical and chemical oceanography, marine animals, marine plants, and marine ecology with major emphasis on natural history of marine life. Bay, estuaries and open oceans are described as habitats. Marine biology as a branch of the biological sciences, employs the scientific method.

Biol 15 California Ecology 5 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, three hours laboratory (84 hours total per quarter).
Introduction to the sciences and the scientific method as exemplified by the study of microbiology. Morphology, metabolism, growth and genetics of bacteria and other microorganisms; chemical and physical means of control; the disease process and immunity. The importance of microorganisms to humankind; techniques and methods of microbiology.

Biol 40A Human Anatomy and Physiology 5 Units
Advisory: Satisfactory score on the Biology 40A Placement Test or Chemistry 1A or Chemistry 30A with a grade of C or better.
Four hours lecture, three hours laboratory (84 hours total per quarter).
An introduction to the disciplines of anatomy and physiology. Basic principles of human anatomy and physiology as exemplified in the study of cell chemistry, cell biology, histology and the invertebrates, skeletal and muscular systems with emphasis on homeostatic mechanisms.