

**ECON 2 Principles of Microeconomics****Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 260, English 250 and Mathematics 233.**Transferable:** CSU; UC; CSU-GE: D2; IGETC: 4B; GAV-GE: D2; CAN: ECON 4

Introduction to microeconomic principles and theory; supply, demand; product and factor price determination, resource allocation, costs, revenues, and profits under different competitive situations; international trade; government regulation and taxation. Note: Economics 1 is not a prerequisite for Economics 2. This course has the option of a letter grade or pass/no pass.

**ECON 10 Fundamentals of Economics****Units:** 3 **Hours:** 3 Lecture**Advisory:** Eligible for English 250, English 260.**Transferable:** CSU; UC; CSU-GE: D2; IGETC: 4B; GAV-GE: D2

A survey of economic concepts and systems. Topics to be covered include production and consumption, pricing and competition, economic growth, inflation, employment, money and banking, and international trade. Not open to students with credit in Economics 1 or 2. This course has the option of a letter grade or pass/no pass.

**ECON 11 Statistics for Business and Economics****Units:** 4 **Hours:** 4 Lecture**Prerequisite:** Mathematics 233.**Transferable:** CSU; UC; CSU-GE: B4; IGETC: 2A; GAV-GE: B4

Statistical methods for business/economics analysis; descriptive statistics, inference, correlation and regression, probability, time series analysis. This course has the option of a letter grade or pass/no pass. This course is also listed as BUS 11.

**ECON 14 Personal Finance****Units:** 3 **Hours:** 3 Lecture**Advisory:** Math 400**Transferable:** CSU

This course is designed to assist individuals to analyze their financial affairs for lifelong decision making. Elements and concepts of financial planning and decision making in the areas of budgeting, taxes, borrowing, money management, insurance, investments, retirement, and estate planning will be examined. This course is also listed as BUS 14. This course has the option of a letter grade or pass/no pass.

**ENGINEERING****ENGR 1 Engineering Graphics****Units:** 3 **Hours:** 2 Lecture, 3 Laboratory**Advisory:** Eligible for English 250 and English 260; Mathematics 1A - may be concurrent, and CSIS 10 - May be concurrent.**Transferable:** CSU; UC; CAN: ENGR 2

An introduction to the graphical and visual communication of the engineering design process. Topics will include the design process, visualization, free-hand sketching, orthographic projection, multi views, auxiliary views, section views, dimensioning and tolerances. Computer-aided-drafting (CAD) software will be used extensively in conjunction with traditional methods to highlight the strengths of multiple communication methodologies.

**ENGR 2 Statics****Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 1A and Mathematics 1B and Physics 4A with a grade of 'C' or better.**Transferable:** CSU; UC; CAN: ENGR 8

Vector statics. Force, moment, couple, system isolation, adequacy of constraint, concentrated and distributed loads, fluid statics, flexible cables, friction and virtual work. Bridge design project.

**ENGR 3 Electrical Circuits/Devices and Systems****Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Mathematics 1A with a grade of 'C' or better. May be taken concurrently.**Advisory:** Physics 4B with a grade of "C" or better and Mathematics 2C.**Transferable:** CSU; UC; CAN: ENGR 12

Natural, forced, and steady-state response by impedance, exponential, pole-zero and phasor methods; solid state; digital circuits and laplace transform methods are introduced.

**ENGR 4 Properties Of Materials****Units:** 3 **Hours:** 3 Lecture**Prerequisite:** Chemistry 1A and Physics 4A.**Transferable:** CSU; UC; CAN: ENGR 4

Basic principles of physics and chemistry are used to determine the quantitative relationships which describe the behavior of solids. Particular emphasis is placed upon the relationship between the structure and mechanical properties of crystalline solids. Applications consider control of properties as an engineering design variable. A term paper based upon review of the periodical technical literature is required.

**ENGR 5 C++ Scientific Programming****Units:** 3 **Hours:** 2 Lecture, 3 Laboratory**Prerequisite:** Mathematics 1A**Advisory:** Completion of CSIS 10.**Transferable:** CSU; UC; CAN: CSCI 4

An introduction to computer problem solving and programming using the C++ language for science and engineering majors. Students will write programs for a variety of scientific and mathematical applications.

**ENGR 10A Introduction to Engineering I****Units:** 2 **Hours:** 1.5 Lecture, 1.5 Laboratory**Prerequisite:** Math 9 or equivalent**Transferable:** CSU; UC

Engineering 10A introduces students to the engineering profession. Topics will include an introduction to the various engineering disciplines; the role of engineers and engineering in society; the curriculum requirements for the various engineering disciplines at different four-year institutions; academic success strategies; personal and professional development techniques; an introduction to the engineering design process; an introduction to engineering problem-solving methodologies; engineering ethics; communication skills; and working as a member of a team. Engineering 10A and 10B, together, are equivalent to Engineering 10 at San Jose State University.

**ENGR 10B Introduction to Engineering II****Units:** 2 **Hours:** 1.5 Lecture, 1.5 Laboratory**Prerequisite:** Engineering 10A**Transferable:** CSU; UC

Engineering 10B continues the introduction to the engineering profession begun in Engineering 10A. Topics will include an introduction to experimental methods and data analysis; continued introduction to the engineering design process with more challenging design problems and the introduction of analysis in engineering design; engineering problem-solving using the personal computer; continued personal and professional growth techniques; communication skills; and working as a member of a team. Engineering 10A and 10B, together, are equivalent to Engineering 10 at San Jose State University.

All courses listed here are part of Gavilan College's approved curriculum. All courses are not offered every semester. Check the Class Schedule for current offerings.