

11/18/04



**Civil & Surveying
Technology Program**
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CERTIFICATE & ASSOCIATE OF SCIENCE DEGREE REQUIREMENTS

<p>Year 1</p> <p>Fall Semester-Core Courses</p> <p>Ap Tech 55 "Basic Drafting Skills" 1.5 units</p> <p>Ap Tech 56 "Intro to AutoCAD" 2.0 units</p> <p>Ap Tech 90A "Applied Mathematics" 4.0 units</p> <p>SURV 50 "Intro to Plane Surveying" 4.0 units</p> <p>CEST 192 "Non-tech Skills for the Tech" 1.5 units</p> <p>Graduation Requirement <u>4.0 units</u></p> <p>17.0 units</p>	<p>Year 1</p> <p>Spring Semester-Core Courses</p> <p>Ap Tech 54A "Intro to GIS" 2.0 units</p> <p>Ap Tech 90B "Applied Mathematics" 4.0 units</p> <p>SURV 51 "Plane Surveying Applications" 4.0 units</p> <p>CEST 51 "Civil Drafting Technology" 3.0 units</p> <p>Graduation Requirement <u>4.0 units</u></p> <p>16.0 units</p>
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<p>Year 2</p> <p>Fall Semester-Civil Engineering Emphasis</p> <p>CEST 81 "Engineering Construction Design" 3.0 units</p> <p>CEST 85 "CAD for Civil, Surv., & Land Dev." 3.0 units</p> <p>Discipline Electives 3.0 units</p> <p>Graduation Requirement 3.0 units</p> <p>Graduation Requirement <u>4.0 units</u></p> <p>16.0 units</p> <p>Spring Semester-Civil Engineering Emphasis</p> <p>CEST 62 "Soil & Materials Testing" 3.0 units</p> <p>CEST 63 "Subdivision Planning" 3.0 units</p> <p>Discipline Electives 3.0 units</p> <p>Graduation Requirement 3.0 units</p> <p>Graduation Requirement <u>3.0 units</u></p> <p>15.0 units</p>

OR

<p>Year 2</p> <p>Fall Semester-Land Surveying Emphasis</p> <p>SURV 53 "Route Surveying & Design" 4.0 units</p> <p>SURV 58 "Evidence & Procedures" 3.0 units</p> <p>Discipline Electives 3.0 units</p> <p>Graduation Requirement 3.0 units</p> <p>Graduation Requirement <u>3.0 units</u></p> <p>16.0 units</p> <p>Spring Semester-Land Surveying Emphasis</p> <p>SURV 55 "Intro to GPS" 2.0 units</p> <p>SURV 59 "Boundary Control & Legal Principles" 3.0 units</p> <p>Discipline Electives 3.0 units</p> <p>Graduation Requirement 3.0 units</p> <p>Graduation Requirement <u>4.0 units</u></p> <p>15.0 units</p>

- A Certificate of Completion will be granted upon fulfillment of 44.0 units of major requirements, with a grade of "C" or better in all courses.
- An Associate of Science degree will granted concurrent with the certificate of completion upon successfully completing a total of 60 units. See list of advisory committee recommended courses or contact Frank Pugh, Applied Technology Department Counselor at 527-4283 or by email: fpugh@santarosa.edu for more information.
- **Recommended Preparation:** High School courses in mathematics through plane geometry and mechanical drafting. These courses may also be taken at SRJC prior or concurrent with enrollment. See department counselor for more information. Depending on a student's previous education or work experience, some courses in the certificate program may be substituted or waived. Application to substitute or waive a course must be made at the beginning of the semester through the Program Coordinator.

**CEST Advisory Committee recommended
Associate Degree General Education Courses (23 units required)**

Area A "English Composition" (4 units)

ENGL 1A, 84, 100 or 104

Area B "Communication and Critical Thinking" (3 units)

Ap. Tech 90A, 90B; or Math 155, 27

Area C "Natural Sciences" (3 units)

GEOG 4; GEOL 1, 5; or PHYS 10

Area D "Social & Behavioral Sciences" (3 units)

BAD 10; GEOG 3, 7; or GEOL 1, 5

Area E "Humanities" (3 units) Art 2.1, 2.2, 2.3; or SPCH 2

Area F "American Institutions" (3 units)

POLS 1

Area G "American Cultures/Ethnic Studies" (3 units)

(Nothing recommended, student's choice from the list)

Area H "Not required for the 2002-2003 academic year"

(Nothing recommended, student's choice from the list)

Area I "Information Literacy" (1 unit)

(Nothing recommended, student's choice from the list)

Civil & Surveying Technology Program Discipline Electives

Electives-Civil Engineering Emphasis

(Choose 6 units)

Ap Tech 54B "Advanced GIS"	2.0 units
Ap Tech 57 "Advanced AutoCAD"	3.0 units
SURV 52 "Intro to Photogrammetry"	2.0 units
SURV 53 "Route Surveying & Design"	4.0 units
SURV 55 "Intro to GPS"	2.0 units
CEST 86 "Advanced Civil Engr. CAD"	3.0 units
CEST 98 "Special Studies in CEST"	1-3 units
CEST 99I "Occ. Work Exp-Intern. Prog."	1-4 units
CIS 61.31 & 61.33 "Using MS-Excel"	3.0 units
CIS 69.31 & 69.33 "MS-Access"	3.0 units
CONS 70A & B "Project Orgzn & Mgmt."	1.5 units
CONS 71A & B "Matls & Methds. of Const."	1.5 units
CONS 72 "Estimating"	3.0 units
CONS 73A & B "Estmtg w/ Computers"	1.0 units
CONS 90 "Construction Industry"	1.0 units
NRM 87 "GIS-Nat. Res. Applications"	3.0 units

Electives-Land Surveying Emphasis

(Choose 6 units)

Ap Tech 54B "Advanced GIS"	2.0 units
Ap Tech 57 "Advanced AutoCAD"	3.0 units
SURV 52 "Intro to Photogrammetry"	2.0 units
CEST 63 "Subdivision Planning"	3.0 units
CEST 81 "Engr. Constr. Design"	3.0 units
CEST 85 "CAD for Civil Engineers"	3.0 units
CEST 86 "Advanced Civil Engr. CAD"	3.0 units
CEST 98 "Special Studies in CEST"	1-3 units
CEST 99I "Occ. Work Exp-Intern. Prog."	1-4 units
CIS 61.31 & 61.33 "Using MS-Excel"	3.0 units
CIS 69.31 & 69.33 "MS-Access"	3.0 units
CONS 70A & B "Project Orgzn & Mgmt."	1.5 units
NRM 52 "Park & Woodland Surveying"	3.0 units
NRM 53 "Forest Engineering & Mapping"	3.0 units
NRM 76 "Use of Aerial Photos in Forestry"	3.0 units
NRM 87 "GIS-Nat. Res. Applications"	3.0 units