

# IDAHO STATE UNIVERSITY COLLEGE OF TECHNOLOGY

## PROGRAM TITLE: CIVIL ENGINEERING TECHNOLOGY

Information included in this handout may change at anytime without notice and should not be considered as a binding contract between Idaho State University and students.

### Program Options & Length:

Civil Engineering Technology, Associate of Applied Science	4 Semesters
Civil Engineering Technician, Advanced Technical Certificate	4 Semesters

**Entry dates  
for this program:**  
August

**Approximate cost  
for books, tools,  
& supplies: \$1,050.00**  
(See below for registration  
fees.)

**For more information,  
Contact:**  
Idaho State University  
College of Technology  
Student Services Office  
Campus Box 8380  
Pocatello, ID 83209-8380  
208-282-2622  
e-mail: [ctech@isu.edu](mailto:ctech@isu.edu)  
[www.isu.edu/ctech/](http://www.isu.edu/ctech/)

**Job Description:** Civil Engineering Technicians obtain field data and prepare drawings and maps pertaining to angles, elevations, azimuth points, contours, earthwork, or for other purposes. They use theodolites, electronic total stations, levels, global positioning surveying (GPS), and other instruments. They plan, design and perform construction staking tasks necessary for the construction of highways, railroads, bridges, buildings, airfields, subdivisions, and other facilities. They also perform testing and inspection tasks on the various construction operations to ensure compliance with specifications.

**Aptitudes and Interests:** Learn and apply theoretical principles and technical knowledge easily, perform mathematical computations accurately, visualize shapes and forms from survey data or sketches, work with drawing details, use judgment in planning work and handling problems and work with Auto Cad on computers and other design software. Workers should like work of a scientific and technical nature involving preparation of maps, charts, and drawings; be able to work as part of a team and exercise tact in dealing with persons whose opinions may conflict with your own; enjoy work which requires great precision and accuracy and be willing to accept responsibility for performance in accordance with prescribed standards; enjoy working with the latest electronic computers, surveying and testing equipment.

**Physical Requirements:** Engineering Technicians should be physically fit and capable of lifting and carrying objects of up to 60 pounds; such as sacks of soil and gravel or testing equipment, and carrying survey equipment over rough terrain.

**Educational Requirements:** Completion of high school or GED is required.

### Helpful High School Courses:

Algebra, Computers, Drafting, English, Geometry, Keyboarding, Physics, Trigonometry

### TUITION AND FEES

Fees apply to the current Idaho State University fee schedule located at <http://www.isu.edu/finserv/costinfo.shtml>.

Fees include **mandatory** student health insurance, any student with existing health insurance coverage may be exempt and waivers are available at <http://www.isu.edu/stuhlth/insurance/pp.html>.

## ADMISSION STEPS

- Complete and return an Application for Admission along with a check or money order for \$40 (non-refundable), payable to Idaho State University. You may also apply online via the Idaho State University home page: [www.isu.edu](http://www.isu.edu) . Click on Prospective Students.
- Submit official college transcripts, if applicable, from each accredited institution of higher education that you have attended.
- Submit an official copy of your high school transcript or GED scores (Not required if you have completed and submitted proof of 14 or more academic credits from an accredited institution of higher education.)
- Meet with a College of Technology counselor, if desired, to obtain more in-depth information. To make an appointment, call (208)282-2622.
- Either:
  1. Complete the COMPASS Placement test. This test enables us to place you in the appropriate classes to enhance your success in college.
  2. Submit ACT/SAT scores, valid for seven (7) years from the date of testing. ACT scores are not required for acceptance to the College of Technology, however they are required to qualify for some scholarships
- Apply for financial aid if needed. Questions, call (208) 282-2756.
- Former College of Technology students who have been out of school one semester or more must complete the necessary forms in the Student Services office before returning to the program. Re-entering student must meet the requirements as outlined in the catalog effective at the date of their re-enrollment.
- All applicants are required to meet with the program coordinator prior to acceptance into the program.

**Idaho State University subscribes to the principles and laws of the State of Idaho and the federal government, including applicable executive orders pertaining to civil rights. All rights, privileges, and activities of the University are made available without regard to race, creed, color, sex, age, disability, national origin or veteran status. The University is an Equal Opportunity and Affirmative Action employer. Evidence of practices that are not consistent with such a policy should be reported to: Leonard E. "Buddy" Frazier, Affirmative Action Director; Museum Building, Room 422 Box 8315.E-mail [frazleon@isu.edu](mailto:frazleon@isu.edu), (208) 282-3964.**

**Idaho State University is committed to equal opportunity in education for all students, including those with documented disabilities. If you have a diagnosed disability or if you believe that you have a disability that might require reasonable accommodations, please contact: Dennis J. Toney, ADA Disabilities and Resource Center Director; Gravely Hall, Room 123 Box 8121.E-mail [tonedenn@isu.edu](mailto:tonedenn@isu.edu), (208)282-3599.**

**Licensure, certification, and/or employment applications related to some degree programs require students to disclose any history of criminal prosecution which may include the student's driving record. Students who have a criminal history are strongly encouraged to contact the licensing agency or meet with the coordinator of the program they are interested in, prior to beginning classes, to discuss potential impediments to licensure, certification, or employment.**

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### COURSE SEQUENCE

**ATC** = Advanced Technical Certificate, **AAS** = Associate of Applied Science

#### 1st Year - 1st Semester - Fall

ATC	AAS	Course #	Course Title	Credits
x	x	CET 110	Applied Mathematics I	4
x	x	CET 111	Drawing with CAD	3
x	x	CET 112	Beginning Surveying	5
x	x	CET 115	Materials Testing and Specifications I	2
x	x	ENGL 101	English Composition	3

#### 1st Year - 2nd Semester - Spring

ATC	AAS	Course #	Course Title	Credits
x	x	CET 120	Applied Mathematics II	4
x	x	CET 121	Civil Engineering Technology Drafting	3
x	x	CET 122	Intermediate Surveying	5
x	x	CET 125	Materials Testing and Specifications II	2
x	x	COMM 101	Principles of Speech	3

NO SUMMER COURSES

#### 2nd Year - 3rd Semester - Fall

ATC	AAS	Course #	Course Title	Credits
	x	PHYS 101	Elements of Physics	3
	x	PHYS 101L	Elements of Physics Lab	1
x	x	CET 211	Utility Design and Construction	3
x	x	CET 212	Route Surveying, Design and State Plane Coordinates	10
x	x	CET 215	Materials Testing and Specifications III	3

#### 2nd Year - 4th Semester - Spring

ATC	AAS	Course #	Course Title	Credits
x	x	CET 220	Engineering Mechanics	3
x	x	CET 224	Land and Construction Surveys	10
x	x	CET 225	Materials Testing and Specifications IV	3

**Students will also need to schedule the following classes if they are seeking the Associate of Applied Science degree:** three (3) credits from Goal 3; three (3) credits from Goals 6, 7, 9, 10A, 11, or 12.

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### BOOK AND TOOL LIST

Textbooks may be purchased at the University Bookstore located at the Pond Student Union - Building #14. Textbooks may also be purchased or reserved on-line through [www.efollett.com](http://www.efollett.com) or the bookstore's website at [www.isu.edu/bookstor](http://www.isu.edu/bookstor). Payments may be made with cash, check, VISA, MasterCard, American Express, or Discover. A shipping charge will be added for mail orders. See the bookstore's website for more information on purchasing or reserving books or for refund policy information. **Save Your Receipts!**

**Approximate total book and tool costs for this program's options are listed below.**  
**Additional book costs will vary depending on the courses taken to fulfill**  
**general education requirements for the AAS degree.**  
**For a breakdown of books by individual class requirements, you must check your course curriculum.**

**NOTE: PRICES ARE SUBJECT TO CHANGE AT ANYTIME WITHOUT PRIOR NOTIFICATION**

#### FIRST SEMESTER

#### I. BOOKS (LISTED BY COURSE) & SUPPLIES (CET 110, 111, 112, 115)

DESCRIPTION	APPROXIMATE PRICE	
<b>CET 110 APPLIED MATHEMATICS I</b>		
TECHNICAL MATHEMATICS	0471695936	139.00
<b>CET 111 DRAWING WITH CAD</b>		
APPLYING AUTOCAD 2008	0078801532	65.00
Class fee (CET 111)		20.00
<b>CET 112 BEGINNING SURVEYING</b>		
ELEMENTARY SURVEYING (W/CD)	0136154310	153.00
Class fee (CET 112)		15.00
<b>CET 115 MATERIALS TESTING AND SPECIFICATIONS I</b>		
BASIC CONSTRUCTION MATERIALS	0131433878	103.00
SOILS MANUAL #MS-10	2107011110	36.00
Class fee (CET 115)		10.00
<b>APPROXIMATE TOTAL BOOKS &amp; SUPPLIES - FIRST SEMESTER</b>		<b>\$541.00</b>

**II. TOOLS (All items as specified or as approved by instructor)**

QUANTITY	DESCRIPTION	APPROXIMATE PRICE
1 ea	HP 33s Scientific Calculator w/ booklet (Surveying Solutions for the HP33s – 2 <sup>nd</sup> edition – D'Zign)	85.00
2 ea	Eraser Holder with soft eraser jet, #825-B Pink, Pocket	2.00
2 ea	Lead (for mechanical pencils) H, 2H, 3H	9.00
1 ea	Protractor, 6" Circular, Kohinoor #8220-6 (Optional)	(4.00)
1 ea	Scale, 12" Engineer's (Triangular) Combination scales	5.00
1 ea	Tape, 25' Steel Measuring (decimal, feet, & inches)	7.00
1 ea	Triangle, Pro. Topaz #1045T, 12" 45 degrees (Optional)	(8.00)
1 ea	Triangle, Pro. Topaz #12-60T, 12" 30-60 degree (Optional)	(8.00)
2 ea 4 ea 2 set	Notebook , Loose-leaf , surveyors Binder , 3-Ring with 400 sheets of engineering paper Dividers, notebook	19.00
<b>APPROXIMATE TOTAL TOOLS - FIRST SEMESTER</b>		<b>\$127.00</b>

**III. UNIFORMS OR OTHER EQUIVALENT WARM CLOTHING (Suggested)**

Safety Vest  
Raincoat  
Coveralls - Insulated  
Belt

<b>APPROXIMATE TOTAL UNIFORMS - FIRST SEMESTER</b>	<b>\$150.00</b>
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<b>APPROXIMATE TOTAL BOOKS, TOOLS &amp; SUPPLIES - FIRST SEMESTER</b>	<b>\$818.00</b>
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**SECOND SEMESTER****I. BOOKS (LISTED BY COURSE) & SUPPLIES (CET 120, 121, 122, 125)**

DESCRIPTION	APPROXIMATE PRICE
<b>CET 120 APPLIED MATHEMATICS II</b>	
<b>CET 121 CIVIL ENGINEERING TECHNOLOGY DRAFTING</b>	
Civil Drafting Technology	50.00
<b>CET 122 INTERMEDIATE SURVEYING</b>	
<b>CET 125 MATERIALS TESTING AND SPECIFICATIONS II</b>	
<b>APPROXIMATE TOTAL BOOKS, TOOLS &amp; SUPPLIES - SECOND SEMESTER</b>	<b>\$50.00</b>

**THIRD SEMESTER****I. BOOKS (LISTED BY COURSE) & SUPPLIES (CET 211, 212, 215)**

DESCRIPTION	APPROXIMATE PRICE
<b>CET 212 ROUTE SURVEY, DESIGN AND STATE PLANE COORDINATES</b>	
Class fee (CET 212)	30.00
<b>CET 215 MATERIALS TESTING AND SPECIFICATIONS III</b>	
MS-5 INTRODUCTION TO ASPHALT #8	22.00
Class fee (CET 215)	10.00
<b>APPROXIMATE TOTAL BOOKS, TOOLS &amp; SUPPLIES - THIRD SEMESTER</b>	<b>\$62.00</b>

**FOURTH SEMESTER****I. BOOKS (LISTED BY COURSE) & SUPPLIES (CET 220, 224, 225)**

DESCRIPTION	APPROXIMATE PRICE
<b>CET 220 ENGINEERING MECHANICS</b>	
Applied Statics and Strengths of Materials	100.00
<b>CET 224 LAND AND CONSTRUCTION SURVEYS</b>	
Graduation Application Fee for First Certificate/Degree	20.00
Optional Graduation Application Fee for Each Additional Certificate/Degree	(10.00)
<b>APPROXIMATE TOTAL BOOKS, TOOLS &amp; SUPPLIES - FOURTH SEMESTER</b>	<b>\$120.00</b>

<b>APPROXIMATE TOTAL BOOKS, TOOLS &amp; SUPPLIES - TECHNICAL PROGRAM</b>	<b>\$1,050.00</b>
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ANTICIPATE ADDITIONAL EXPENSES ASSOCIATED WITH THIS PROGRAM:

**TEXTBOOKS ASSOCIATED WITH ACADEMIC COURSES,**  
TRANSPORTATION, PARKING, CHILD CARE, HOUSING.

YOU MUST CHECK YOUR CLASS SCHEDULE TO DETERMINE TEXTBOOKS REQUIRED BY INSTRUCTOR.