



# Agenda

## Environmental Technology and Sustainability

### Advisory Committee

Lake Tahoe Community College

Wednesday, May 30th, 2018

3:30 – 5:00 PM

Aspen Room

- Welcome and Introductions
- Program Overview
  - Annual Unit Plan
  - Annual Program Review
- ETS Degree and Certificates
- Internship Opportunities and Contacts
- Deputy Sector Navigator Grant Purchases
- New EVS STEM Training Classes
- Bio 111
- Other Topics
- Perkins

# Environmental Technology and Sustainability (ETS)

## Advisory Committee Minutes

Lake Tahoe Community College

Wednesday, May 30, 2018

3:30 – 5:00 p.m., (L103 Aspen Room)

- **Welcome and Introductions**

- Meeting called to order at 3:38 p.m.
- The purpose of the advisory meeting provides an opportunity for us to collaborate and listen to our partners and expand conversations to better serve the needs of business and industry, spur student interest, and provide an educational pathway that leads to jobs in the field.
- **Attendees: LTCC Staff, Workforce Partners, Regional Collaborators:**
  - Jason Burke, Stormwater Program Coordinator, City of South Lake Tahoe Public Works
  - Brad Deeds, Dean of Workforce Development & Instruction, LTCC
  - Amber Goligoski, Apprenticeship & Work-Based Learning Program Coordinator, LTCC
  - Adam Jensen, Environmental Education Specialist, Tahoe Regional Planning Agency (TRPA)
  - Dona Olsen, Student Representative, LTCC
  - Faye-Marie Pekar, Engineer Technician City of South Lake Tahoe Public Works
  - Carrie Peterson, ETS Deputy Sector Navigator, North/Far North Region, California Community Colleges
  - Jamie Rhone, Career and Technical Education Program Specialist, LTCC
  - Ryan Rudell, Systems Programmer/MIS Analyst, LTCC
  - Kathy Strain, Laboratory Science Adjunct Faculty and Science Program Specialist, LTCC
  - Scott Valentine, Earth Sciences Faculty, LTCC

- **Program Handouts**

- Annual Program Review Data (ETS)
  - Summary
  - Student Demographics
  - Degree and Certificates
  - Course Success
- Marketing
  - Environmental Technology and Sustainability (ETS) Marketing Brochure
  - ETS Certificate of Achievement (Guided Pathway with four-year schedule)
  - 2018-2019 ETS Major and Certificate of Achievement pages
- 42<sup>nd</sup> Annual Commencement Program (EST: Physical Resources Certificate awarded to Greg Hoover)

- **General Discussion**

- Carrie Peterson is now the Deputy Sector Navigator for the North and Far North Regional Consortium (NFNRC) in Agriculture, Water, and Environmental Technologies. The funds are designed to provide educational and job opportunities for students by connecting the right people, and increasing course enrollments in the program. The ETS department received start-up funding from the NFNRC for ETS equipment and marketing in both 2015-2016 and 2016-2017.
- Scott teaches in earth sciences and in the degree and certificate concentrations of ETS: Physical Resources and ETS: Sustainability Areas. He would like to develop new online Geographical Information Systems (GIS) courses in different formats with a user-friendly focus to meet agency partner needs (e.g. short courses, evenings, weekends, etc.) with a focus on entry-level jobs, best practices, and career advancement. GIS is a mapping technology that allows the user to create and interact with a variety of maps and data sources. GIS integrates databases with georeferenced spatial data (maps tied to specific known locations). The DSN grant purchases are a great resource for GIS.

- **General Discussion (continued)**

- Kathy provided a program review and update. The Environmental Science Department (EVS) has undergone a dramatic expansion over the last three years and is taught primarily by adjunct staff. The new ETS AA Degree and Certificate program were designed to meet industry standards and includes an internship component to allow greater collaboration with the community (e.g. state and local agencies, non-profits, and private business) to find and fill internship positions. There is also a clear path from the local high school's Generation Green club to LTCC's environmental science classes in EVS/ETS. She teaches in the ETS Degree and Certificate Achievement concentrations (EVS courses) and ETS: Biological Resource Areas. This year the classes below are being piloted at a local K-5<sup>th</sup> grade elementary school, the Lake Tahoe Environmental Science Magnet School, and are designed for teachers to increase their knowledge about the Next Generation Science Standards (NGSS) and STEM/STEAM (science, technology, engineering, arts, and math) teaching methods designed for K-12 teachers and three other elementary Lake Tahoe Unified School District schools:
  - EVS-131-D: STEM/STEAM Life Science Teacher Training (Part I) – Fall 2017
  - EVS-131-E: STEM/STEAM Earth Science Teacher Training (Part II) – Winter 2018
  - EVS-131-F: STEM/STEAM Physical Science Teacher Training (Part III) – Spring 2018
- Two ETS: Physical Resources degrees are in the pipeline for completion in June 2018. It was suggested that we pursue two categories of targeted outreach to remind ETS students that are eligible for a degree and/or certificate but have yet to apply for one, and are one or two classes away from a degree and/or certificate. Ryan is excited to work with Kathy to develop targeted outreach reports. He has previous experience working with innovative technologies and digital marketing.
- Dona (LTCC ETS student) found the ETS brochure at the business expo. The ETS brochure, college instructors and support staff inspired Dona Olsen to pursue the ETS: Physical and Biological Resources Degree and Certificate. She is looking forward to the internship component of the program and agency connection opportunities.
- Amber is interested in increasing internships, apprenticeships, and work-based learning opportunities with agencies to increase opportunities for students in compliance with Title V regulations. She met with community partners, customized a program for students to participate in the Tahoe Mountain Lab project, resume workshops and participated in the speed-networking industry event for students. Students interested in pursuing summer internships should really start the process one to two quarters ahead (e.g. January for summer courses).
- Faye-Marie provided an overview of her educational degree experience. After graduating from LTCC, she transferred and earned a Bachelor's in Environmental Science and Biology. As a student at LTCC she participated in the internship program during her summers and worked in the environmental field. She was subsequently able to secure employment in Tahoe as an Engineering Technician with the City of South Lake Tahoe Public Works. She is an advocate for others to gain more hands-on experience by participating in community stormwater events.
- Jason and Faye-Marie conveyed to the group that internship opportunities at the City of South Lake Tahoe Public Works are designed for entry-level jobs (e.g. stormwater quality interns). A former LTCC student who went on to earn a BS degree is currently working the South Tahoe PUD laboratory.
- Adam provided a brief overview of the internship program at TRPA. Jaymi Hardy, Human Resources Coordinator, is the contact for the internship program at TRPA. This season she has many interns participating in the program. Julie Regan, External Affairs Chief, handles events in Tahoe. The GIS classes will provide different internship opportunities for students.

- **General Discussion (continued)**

- Adam provided an overview of the amazing digital resources available to the public and an untapped resource that is ideal for students:
  - Lake Tahoe Info at <https://laketahoeinfo.org/>
    - Lake Clarity Tracker
    - Parcel Tracker Sustainability Dashboard
    - Threshold Dashboard
  - Tahoe Open Data at <http://data-trpa.opendata.arcgis.com>
    - Parcels
    - Wildlife
    - Soils and Hydrology
    - Boundaries
    - Transportation
    - Monitoring
- We added a summer offering of Introduction to Plant and Animal Biology (BIO-111). Madelyn Rios is the instructor, the class begins on July 16<sup>th</sup>.
- The instructors were able to participate in the Open Educational Resources Initiative, which allowed the college to adopt free digital textbooks for all EVS courses to lessen the financial burden for the students.
- The college applied for Epic Grants at Heavenly. This partnership provided two field trips for students, including LEED building design and ecotourism.
- Carrie conveyed to the committee that there is a need for a water quality certificate in metropolitan areas with large populations.
- The water treatment industry is working on succession plans for the future aging-out retirements of 50% of a highly-educated and technically-skilled workforce.
- Kathy provided an update on grant purchases. The college has been extremely fortunate to receive DSN grant funding for the last two years from the California North Region Deputy Sector Navigator for Water & Agriculture, Water, and Environmental Technologies (Carrie Peterson). A total of \$35,000 for equipment and \$5,000 for marketing materials (e.g. brochure, newspaper articles, appearances on local television programs), created a video for the college website and created an ETS steering community. The funds also purchased an innovative 74-inch InFocus LED HD touchscreen television, located in the science gallery. The interactive TV is a touchscreen and loaded with popular programs: Google Earth, local weather information, and LiDAR (light detection and renderings), 3-D anatomy and physiology displays and 3-D chemical structure renderings, data from around the lake with plans to add more local partner programs. The technology allows students to submit digital projects vs. traditional poster format projects, introduce them to local, regional, and worldwide data and industries. This also connects classroom and place-based learning into all courses and travel within our local community for hands-on field experiences.
- Scott is interested in developing tiered internships with a GIS focus to bridge the gap for career advancement.
- Kathy mentioned TRPA boat inspections are another internship opportunity for students and useful for applied base survey techniques.

- **General Discussion (continued)**

- Increase relationships with our regional partners at UNR, UC Berkeley, and UC Davis. Their programs complement our programs.
- ETS courses could follow the model of public safety course: short weekends, single-topic professional development:
  - Best Management Practices (BMPs)
  - Hazmat
  - GIS

- **Hands-on Demonstration of New TV.**

- Scott provided a demonstration with agency partners, committee members and regional partner. The unit is located in the science gallery. Individual student projects will move away from paper projects to rotating digital projects. The screen is loaded with a variety of programs for students to explore, from Google Earth to 3-D chemical structures, to weather station data, 3-D anatomy and physiology and models to enhance the student learning experience. All committee member attendees were inspired to continue collaborating on ways to utilize this new innovative technological resource, provided by the NFNRC funding.

- **Perkins**

- Perkins funding helps the Career & Technical Education department provide a Quarterly Textbook Lending Program, which provides textbooks for eligible students who are pursuing a CTE degree, certificate of achievement and/or employable skills certificate.

- **Action Items and Assigned Tasks**

- Scott will work with agency partners to load additional agency resources on the TV.
- Ryan will develop targeted outreach reports to capture students in two categories:
  - Eligible for ETS Degree and/or Certificate Achievement
  - One or two courses away from becoming eligible for an ETS Degree and/or Certificate of Achievement.

**Adjournment**

- The meeting adjourned at 5:00 p.m.

Respectively submitted,  
Jamie Rhone, Career & Technical Education Program Specialist

# 2016-17 ANNUAL PROGRAM REVIEW

## Environmental Science - Environmental Tech and Sustain

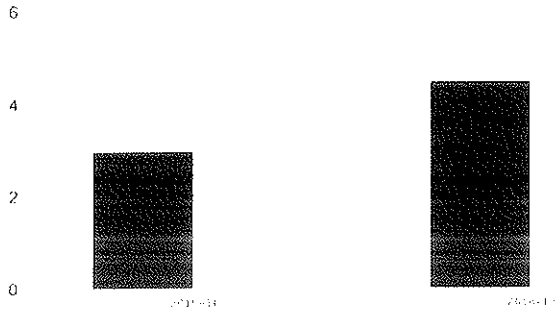


### ENVIRONMENTAL SCIENCE - ENVIRONMENTAL TECH AND SUSTAIN SUMMARY

This report contains data from Academic Year (AY) 2015 to 2016. Information on program size based on full-time equivalent students (FTES), Student Success, and Student Achievement are presented below.

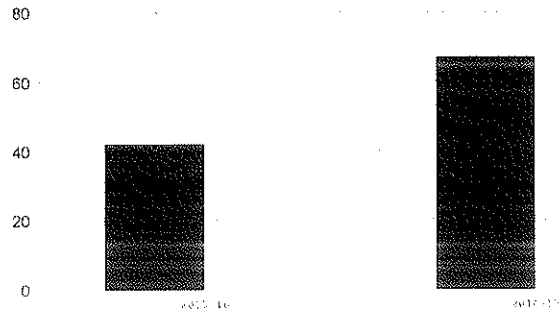
	Total Sections	F2F Sections	Dist Ed Sections	Total FTES	F2F FTES	Dist Ed FTES	Total Duplicated Headcount	F2F Duplicated Headcount	Dist Ed Duplicated Headcount
2015-16	4	4	0	2.93	2.93	0.00	42	42	0
2016-17	4	4	0	4.44	4.44	0.00	67	67	0
1-Yr Chg (15-16 to 16-17)	0.0%	0.0%	---	51.7%	51.7%	---	59.5%	59.5%	---
1-Yr Chg (15-16 to 16-17)	0.0%	0.0%	---	51.7%	51.7%	---	59.5%	59.5%	---

**RESIDENT FTES**



■ F2F FTES ■ DE FTES

**DUPLICATED HEADCOUNT**



■ F2F Dup Headcount ■ DE Dup Headcount

## 2016-17 ANNUAL PROGRAM REVIEW

### Environmental Science - Environmental Tech and Sustain

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#### DEMOGRAPHICS

	2015-16		2016-17	
	N	%	N	%
Male	19	54.3%	22	55.0%
Female	15	42.9%	18	45.0%
Unknown	1	2.9%	0	0.0%

	2015-16		2016-17	
	N	%	N	%
Asian	1	2.9%	2	5.0%
Hispanic	6	17.1%	10	25.0%
White Non-Hispanic	25	71.4%	25	62.5%
Two or more races	3	8.6%	2	5.0%
Unknown	0	0.0%	1	2.5%

	2015-16		2016-17	
	N	%	N	%
Age < 25	21	60.0%	23	57.5%
Age 25 - 49	9	25.7%	15	37.5%
Age 50 +	5	14.3%	2	5.0%

	2015-16		2016-17	
	N	%	N	%
Median Age	26		24	
Youngest	18		17	
Oldest	68		69	

## 2016-17 ANNUAL PROGRAM REVIEW

Environmental Science - Environmental Tech and Sustain

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### AWARDS

	<b>Award Type</b>	<b>Award Title</b>	<b>Awards Conferred</b>
2016-17	AA Degree	Biological Resources	2
	AA Degree	Physical Resources	1
	Certificate	Physical Resources	1



## 2016-17 ANNUAL PROGRAM REVIEW

### Environmental Science - Environmental Tech and Sustain

#### COURSE SUCCESS

	2015-16		2016-17	
	Enrollment	Success	Enrollment	Success
Male	22	77.3%	37	83.8%
Female	18	94.4%	26	84.6%

	2015-16		2016-17	
	Enrollment	Success	Enrollment	Success
Asian	1	100.0%	2	0.0%
Hispanic	7	85.7%	14	57.1%
White Non-Hispanic	28	89.3%	42	97.6%
Two or more races	4	50.0%	3	66.7%
Unknown	0	0.0%	2	100.0%

	2015-16		2016-17	
	Enrollment	Success	Enrollment	Success
Age < 25	21	71.4%	33	75.8%
Age 25 - 49	14	100.0%	27	92.6%
Age 50 +	5	100.0%	3	100.0%

	2015-16		2016-17	
	Enrollment	Success	Enrollment	Success
F2F	40	85.0%	63	84.1%

NOTE: Enrollment = duplicated headcount, excluding audits, noncredit, and drops w/ no record.

## 2016-17 ANNUAL PROGRAM REVIEW

### Environmental Science - Environmental Tech and Sustain

#### 2016-17 COURSE STATISTICS

<b>ENVIRONMENTAL SCIENCE - ENVIRONMENTAL TECH AND SUSTAIN PRODUCTIVITY* (2016-17):</b>	<b>295.07</b>
<b>% FULL TIME INSTRUCTORS** (2016-17):</b>	<b>0%</b>
<b>% ADJUNCT INSTRUCTORS** (2016-17):</b>	<b>100%</b>

FACE TO FACE		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTEs	WSCH	FTEF	Productivity
EVS-102	Environ Science: System Dyn	1	0.0%	0%	100%	22.0	20.0	90.9%	80.0%	1.93	89	0.08	354.20
EVS-103	Enviro Science: Human Impacts	1	0.0%	0%	100%	17.0	16.0	94.1%	87.5%	1.37	68	0.08	272.00
EVS-104	Env Tech and Sust Lab Methods	1	0.0%	0%	100%	14.0	14.0	100.0%	78.6%	0.47	24	0.03	253.87
EVS-105	Env Tech and Sus Field Methods	1	0.0%	0%	100%	14.0	13.0	92.9%	92.3%	0.67	32	0.04	253.87
<b>Total</b>		<b>4</b>	<b>0.0%</b>	<b>0%</b>	<b>100%</b>	<b>16.8</b>	<b>15.8</b>	<b>94.0%</b>	<b>84.1%</b>	<b>4.44</b>	<b>212</b>	<b>0.24</b>	

DISTANCE EDUCATION		Sections Offered	Cancel %	FT % **	Adjunct % **	Avg Census Enroll	Avg End of Term Enroll	Retention % ***	Success % ***	FTEs	WSCH	FTEF	Productivity
			---					0.0%					---
<b>Total</b>			---					0.0%					

\* Excludes Summer, noncredit, work experience, internship, and cancelled sections

\*\* Excludes summer assignments. Based on instructional workload and the percentage of workload assigned under full-time contracts versus adjunct contracts

\*\*\* Withdrawal and success statistics exclude noncredit classes.

CANDIDATES FOR SUMMER 2017 CONFERRAL

Summer Hope Anderson

- Erin A. Boezer
- Melissa Ann Ducker
- Brian C. Fiore
- §+Aegir W. Gautreaux-Stephens
- Kamari Heagney
- §Sabrina Isay
- Charlene R. Jones
- Maura J. Jones
- Sherree Ann Juarez
- Jack Larter
- Odalys V. Marroquin
- §+Trisy I. Medina

Travis S. Mercalfe

- Shelby R. Nanzig
- Crystal L. OHare
- Aimee Orozco
- Jillian F. Raney
- Jillian C. Rocha
- Abigail Y. Ruiz
- +Vanessa J. Ruiz
- Alexandra J. Shand
- Jacdan J. Smithhart Clelan
- §+Ben S. Trevino
- Andrea D. Turner

CERTIFICATES OF ACHIEVEMENT

ADDICTION STUDIES

- Karen E. Davidson
- Kathleen M. Jackson

FIRE ACADEMY

- Cameron J. Anderson
- Anthony Bosco
- Tanner R. Braun
- Taylor P. Burke
- Garner S. Carlson, III
- Francois J. Cezalor
- Travis D. Cunha
- Noel S. Dasta
- Terror A. Garon
- Kamari D. Heagney
- Dustin R. Johnson
- Nate R. Ludwig
- Chelsea N. Madsen
- Curtis R. Maxwell
- Cody J. McWilliams
- Andrew S. Melendez
- Wade Hunter Norberg
- John D. Reynolds
- Joshua A. Rodriguez
- Neil A. Schnaible
- Landon B. Stanton
- Juris Vaskovskis

ART - CERAMICS

- Clara R. Hasbrook
- Ashley N. Pfister

ART - FIGURE STUDIES

- Zane C. Moz

ART - PHOTOGRAPHY STUDIES

- Austin R. Ellis

ART - SCULPTURE STUDIES

- Ashley N. Pfister

BUSINESS-ACCOUNTING TECHNICIAN

- Nicole A. Kruczynski
- Gynthia H. Montgomery

CULINARY ARTS

- Ruby R. Baginski - *Foundations of Cooking*
- Lawrence G. Matzkin - *Vegetarian Cuisine*

EARLY CHILDHOOD EDUCATION

- Margarita Paloma Aguirre

WILDERNESS EDUCATION  
CLIMBING, SEARCH & RESCUE  
WATER SKILLS

- Amoria D. Bustos

ENVIRONMENTAL TECHNOLOGY & SUSTAINABILITY - PHYSICAL RESOURCES  
Gregory J. Hoover

Certificates of Achievement are awarded upon the successful completion of 20.5 - 45 quarter units in a specific area with a grade point average of 2.0 or higher.



42ND ANNUAL  
COMMENCEMENT

2017

LAKE TAHOE COMMUNITY COLLEGE

“Follow Your Dreams”

FRIDAY, JUNE 30, 2017

6:00 P.M.

CANDIDATES FOR SUMMER 2017 CONFERRAL

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- Erin A. Boetzer
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- Brian C. Fiore
- §+Aegir W. Gautreaux-Stephens

- Kamari Heagney
- §Sabrina Isay
- Charlene R. Jones
- Maura J. Jones
- Sherree Ann Juarez
- Jack Larter
- Odalys V. Marroquin
- §+Tristy I. Medina

- Travis S. Mercalle
- Shelby R. Nanzig
- Crystal L. O'Hare

- Aimee Orozco
- Jillian F. Raney
- Jillian C. Rocha
- Abigail Y. Ruiz
- +Vanessa J. Ruiz
- Aleksandra J. Shand
- Jacdan J. Smithhart Clelan
- §+Ben S. Trevino
- Andrea D. Turner

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- Katleen M. Jackson

ART - CERAMICS

- Clara R. Hasbrook
- Ashley N. Pfister

ART - FIGURE STUDIES

- Zane C. Moiz

ART - PHOTOGRAPHY STUDIES

- Austin R. Ellis

ART - SCULPTURE STUDIES

- Ashley N. Pfister

BUSINESS-ACCOUNTING TECHNICIAN

- Nicole A. Kruczynski
- Gynthia H. Montgomery

CULINARY ARTS

- Ruby R. Baginski - *Foundations of Cooking*
- Lawrence G. Matzkin - *Vegetarian Cuisine*

EARLY CHILDHOOD EDUCATION

- Margarita Paloma Aguirre

ENVIRONMENTAL TECHNOLOGY & SUSTAINABILITY - PHYSICAL RESOURCES

- Gregory J. Hoover

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ENVIRONMENTAL TECHNOLOGY & SUSTAINABILITY - PHYSICAL RESOURCES

- Gregory J. Hoover

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2017

42ND ANNUAL COMMENCEMENT

LAKE TAHOE COMMUNITY COLLEGE

"Follow Your Dreams"

FRIDAY, JUNE 30, 2017

6:00 P.M.

# Environmental Technology and Sustainability



## Certificate of Achievement



The Environmental Technology and Sustainability certificate of achievement program is an interdisciplinary course of study that focuses on preparing students for employment with an introduction to environmental components, processes, and issues. Students pursuing this major have the option of exploring diverse fields in environmental management and restoration, natural resources conservation, and sustainability. Many of the courses emphasize exploration and study of the Lake Tahoe Basin and the surrounding areas, a natural lab of outstanding beauty and richness.

### Student Learning Outcomes for this major are:

- Apply the scientific method to analyze organisms, structures, processes, and issues associated with local, regional, national, and global environments.
- Dissect, model, and communicate the complexity of the natural environment into its component interconnected systems.

### A. REQUIRED COURSES:

**18 units distributed as follows:**

**3.5 units minimum from the following:**

CHM 100 Introduction to General Chemistry

CHM 101 General Chemistry

GEG 134/CIS 135A Introduction to Geographic Information Systems

MAT 201 Elementary Statistics

11.5 units distributed as follows:

EVS 102 Environmental Science: System Dynamics

EVS 103 Environmental Science: Human Impacts

EVS 104 Environmental Technology and Sustainability Laboratory Methods

EVS 105 Environmental Technology and Sustainability Field Methods

3 units of Occupational Work Experience:

EVS 133 Internship Occupational Work Experience

### AREAS OF CONCENTRATION: (Choose any option)

In addition to the required core courses listed above, students seeking an Environmental Technology and Sustainability Certificate must select an area of concentration. Multiple areas of concentrations may be achieved by completing an additional 10 units in any of the following areas listed.

Required core courses cannot be duplicated.

#### 1. ETS: BIOLOGICAL RESOURCES

**A minimum of 10 units distributed as follows:**

**5 units distributed as follows:**

BIO 111 Introduction to Plant and Animal Biology

5 units minimum not already used from the following:

BIO 112 Systems Biology

BIO 113 Field Methods in Wildlife Ecology

BIO 141A Birds of the Lake Tahoe Basin

BIO 149 Ecology

BIO 201 Botany

BIO 212 Zoology

#### 2. ETS: PHYSICAL RESOURCES

**A minimum of 10 units distributed as follows:**

**5 units minimum from the following:**

GEG 101 Physical Geography

GEL 102 Physical Geology

5 units minimum not already used from the following:

GEG 101 Physical Geography

Conservation of Natural Resources

GEG 106 California Geography

GEG 107 Water Quality Monitoring of Streams and Lakes

GEG 108 Water Resources

GEG 113 Meteorology

GEG 114 Economic Geography

GEL 101 Geology of California

GEL 102 Physical Geology

GEL 103 History of Earth and its Life

GEL 107 Geology of the Eastern Sierra

GEL 110 Geology of the National Parks and Monuments

GSE 110 History of Taming Water in the West

GSE 111 Water Conservation

#### 3. ETS: SUSTAINABILITY

**A minimum of 10 units distributed as follows:**

**5 units minimum from the following:**

GSE 101 Introduction to Sustainability

GSE 103 Lake Tahoe Issues and Agencies

GSE 107 Energy, Society and Sustainability

5 units minimum not already used from the following:

BIO 149 Ecology

GEG 107 Water Quality Monitoring of Streams and Lakes

GSE 101 Introduction to Sustainability

GSE 103 Lake Tahoe Issues and Agencies

GSE 105 Introduction to Green Business

GSE 106 Landscape Design and Sustainable Site Plan

GSE 107 Energy, Society and Sustainability

GSE 110 History of Taming Water in the West

GSE 111 Water Conservation

GSE 115 Introduction to Geotourism

GSE 120 Residential and Small Business Energy Auditing

GSE 126 Introduction to Solar Energy: Thermal,

Photovoltaic, Passive Design

WLD 100 Foundations of Recreation Land Management

# Environmental Technology & Sustainability Detailed Schedule 2018-2019

For more information, contact Kathy Strain by email: [strain@ltcc.edu](mailto:strain@ltcc.edu) or phone: 530-541-4660 X 267.

Fall 2018 EVS 102-01 Environmental Science: System Dynamics Tuesday/Thursday 9:30AM - 11:35PM 9/25 - 12/6/18

Fall 2018 EVS 105-01 Environmental Technology and Sustainability Field Methods Wednesday 9:00 - 11:10PM 10/3 - 12/5/18

Winter 2019 EVS 104-01 Laboratory Methods (ETS) Tuesday/Thursday 10:00 - 11:40AM 1/22 - 3/26/19

Spring 2019 EVS 103-01 Environmental Science: Human Impacts (ETS) Tuesday 9:30 - 11:40AM 4/9-6/27/19

Please note:

- CHM 100 “Intro to General Chemistry” is offered face-to-face every spring.
- CHM 101 “General Chemistry” is offered face-to-face every fall.
- CIS 135A “Intro to Geographic Information Systems” is offered face-to-face every winter.
- EVS 133 “Internship Occupational Work Experience” is offered face-to-face every quarter.
- MAT 201 “Elementary Statistics” is offered face-to-face every quarter except summer and online every quarter.

Summer 2017	Fall 2017	Winter 2018	Spring 2018	Summer 2018	Fall 2018	Winter 2019	Spring 2019
<b>EVS 133-01</b>	<b>CHM 101-01</b>	<b>CIS 135A-01</b>	<b>CHM 100-01</b>	<b>EVS 133-01</b>	<b>CHM 101-01</b>	<b>CIS 135A-01</b>	<b>CHM 100-01</b>
MAT 201-01	<b>EVS 102-01</b>	<b>EVS 104-01</b>	<b>EVS 103-01</b>	MAT 201-01	<b>EVS 102-01</b>	<b>EVS 104-01</b>	<b>EVS 103-01</b>
	<b>EVS 105-01</b>	<b>EVS 133-01</b>	<b>EVS 133-01</b>		<b>EVS 105-01</b>	<b>EVS 133-01</b>	<b>EVS 133-01</b>
	<b>EVS 133-01</b>	<b>MAT 201-01</b>	<b>MAT 201-01</b>		<b>EVS 133-01</b>	<b>MAT 201-01</b>	<b>MAT 201-01</b>
	<b>MAT 201-01</b>	MAT 201-02	MAT 201-02		<b>MAT 201-01</b>	MAT 201-02	MAT 201-02
	MAT 201-02				MAT 201-02		
Summer 2019	Fall 2019	Winter 2020	Spring 2020	Summer 2020	Fall 2020	Winter 2021	Spring 2021
<b>EVS 133-01</b>	<b>CHM 101-01</b>	<b>CIS 135A-01</b>	<b>CHM 100-01</b>	<b>EVS 133-01</b>	<b>CHM 101-01</b>	<b>CIS 135A-01</b>	<b>CHM 100-01</b>
MAT 201-01	<b>EVS 102-01</b>	<b>EVS 104-01</b>	<b>EVS 103-01</b>	MAT 201-01	<b>EVS 102-01</b>	<b>EVS 104-01</b>	<b>EVS 103-01</b>
	<b>EVS 105-01</b>	<b>EVS 133-01</b>	<b>EVS 133-01</b>		<b>EVS 105-01</b>	<b>EVS 133-01</b>	<b>EVS 133-01</b>
	<b>EVS 133-01</b>	<b>MAT 201-01</b>	<b>MAT 201-01</b>		<b>EVS 133-01</b>	<b>MAT 201-01</b>	<b>MAT 201-01</b>
	<b>MAT 201-01</b>	MAT 201-02	MAT 201-02		<b>MAT 201-01</b>	MAT 201-02	MAT 201-02
	MAT 201-02				MAT 201-02		

**Highlighted courses are face-to-face.**

To become a student at Lake Tahoe Community College, you will need to complete an online application before you can register for classes. Please go to our website at [www.ltcc.edu/admissions](http://www.ltcc.edu/admissions) and click on “Apply”. Your application might take up to 24 hours to process prior to your being able to enroll in specific courses, so please be patient and check the LTCC email you are assigned for updates. Contact Enrollment Services at 530-541-4660 ext. 211 or [enrollmentservices@ltcc.edu](mailto:enrollmentservices@ltcc.edu) for information on assessment, orientation, and counseling. To view the schedule of current classes, go to LTCC’s website at [www.ltcc.edu](http://www.ltcc.edu) and click on the “Academics” and the “Schedule of Classes” tab.

**Students are required to meet with a counselor, [counselor@ltcc.edu](mailto:counselor@ltcc.edu) or 530-541-4660 ext. 211, to develop an educational plan.**

**All schedules subject to change!**

**Environmental Technology and Sustainability** prepares you for jobs in the beautiful Lake Tahoe Basin and beyond!

**Career Technical Education**  
@ Lake Tahoe  
Community College

**Environmental Technology and Sustainability**

Our program features:

- Field work
- Technical Laboratory Skills
- Academic Skills
- Practical Work Experience

Employers value college grads with real-world experience. We'll help you apply for great internships at local environmental companies and agencies, where you can earn college credits for your work experience.



For more information on the ETS program, contact Kathy Strain at [strain@ltcc.edu](mailto:strain@ltcc.edu)  
**(530) 541-4660 x267**  
or visit our web page  
[ltcc.edu/web/academics/ETS](http://ltcc.edu/web/academics/ETS)

One College Drive  
South Lake Tahoe, CA 96150  
[www.ltcc.edu](http://www.ltcc.edu)

Phone: (530) 541-4660  
Fax: (530) 541-5782

This brochure was created with generous support from CA North Region Deputy Sector Navigator for Agriculture, Water & Environmental Technologies

Photos by Pat Leonard-Heffer



## Get started!

1. Talk with an LTCC counselor
2. Choose your area of concentration
3. Register for classes
4. Launch your career!



**AA Degree or Certificate of Achievement**

Elevate Your Education

## Environmental Technology

experts use skills and knowledge to address environmental challenges and to provide all of us with the resources we need for today, and for the future.

Begin with core classes in Environmental Science and laboratory and field methods. Then, you have the flexibility to choose from the three different areas of concentration below:

After completing your concentration courses, you are awarded either a **Certificate of Achievement** or an **Associate Degree in Environmental Technology and Sustainability**.



### 1. Biological Resources

Start on your path to become a Wildlife Officer, Forestry Technician, Ecologist, or Fisheries Biologist.

#### **Median Salaries**

Wildlife Officer: \$48,760 (BS)  
Forestry Technician: \$33,920 (AA)  
Ecologist: \$59,060 (BS+)  
Fisheries Biologist: \$57,710 (BS+)

### 2. Physical Resources

Choose this concentration for careers such as an Environmental Geologist, Water Quality Technician, or Geographic Information System (GIS) Technician.

#### **Median Salaries**

Environmental Geologist: \$63,570 (BS+)  
Water Quality Technician: \$41,240 (AA)  
GIS Technician: \$39,670 (AA)

### 3. Sustainability

For students who want to build green. With this concentration, carve out a career as an Environmental Technician, Green Sustainability Business Owner, or Sustainable Energy Technician.

#### **Median Salaries**

Environmental Technician: \$41,240 (AA)  
Sustainable Energy Tech.: \$33,920 (AA)