

TEXAS A&M SCHOOL OF IRRIGATION

2009 Spring-Summer Short Course Schedule

ET and Sensor-based (“Smart”) Irrigation Controllers		
San Antonio	April 21	8:30 am - 5 pm
Abilene	April 29	8:30 am - 5 pm
Irrigation Water Management of Commercial Landscapes		
San Antonio	April 22	8:30 am - 5 pm
Abilene	April 30	8:30 am - 5 pm
Drip Irrigation Workshop		
College Station	July 30	10:00 am - 6:30 pm
Automated Weather Stations		
College Station	July 31	10:00 am - 6:30 pm
Irrigation CAD Workshop		
	day 1: 10 am - 6:30 pm	
	day 2: 8:15 am - 4:45 pm	
College Station	May 19-20	
College Station	August 18-19	
Advanced Irrigation CAD Workshop		
College Station	May 21	10 am - 6:30 pm
College Station	August 20	10 am - 6:30 pm
Landscape Irrigation Auditing and Management		
	day 1: 8:30 am - 5 pm	
	day 2: 8:15 am - 4:45 pm	
Dallas		March 11-12
El Paso		March 16-17
Alpine		March 18-19
LIA Certification Exam (~ 5 pm)		
Dallas		March 12
El Paso		March 17
Alpine		March 19

for classroom addresses and maps, see
<http://irrigation.tamu.edu>

COURSE SPONSORS

Specific courses are being sponsored by the following
 (see website for details):

City of El Paso
 Sul Ross State University
 San Antonio Water System
 Taylor County Extension Office
 El Paso County Extension Office
 Rio Grande Basin Initiative

COURSES BY CITY

Dallas
 Landscape Irrigation Auditing March 11-12

El Paso
 Landscape Irrigation Auditing March 16-17

Alpine
 Landscape Irrigation Auditing March 18-19

San Antonio
 Smart Controllers April 21
 Irrigation Water Management April 22

Abilene
 Smart Controllers April 29
 Irrigation Water Management April 30

College Station
 Drip Irrigation Workshop July 30
 Automated Weather Stations July 31
 Irrigation CAD May 19-20
 August 18-19
 Advance CAD May 21
 August 20

CONTINUING EDUCATION CREDIT

TCEQ (Texas Commission on Environmental Quality)
continuing education credits for **Licensed Irrigators:**

16 Hours
 Landscape Irrigation Auditing and Management
 Irrigation CAD Workshop

8 Hours
 Irrigation Water Management and Scheduling
 ET and Sensor-based (“Smart”) Irrigation Controllers
 Automated Weather Stations
 Advanced CAD Workshop

Drip Irrigation Workshop - 8 Hours
 4 Hours Introduction to Landscape Drip Irrigation
 4 Hours Fundamentals of Irrigation System Hydraulics

LICENCED IRRIGATION INSPECTORS

The following are TCEQ approved Water Conservation-
 Water Audit Courses that meet the requirement to become an
 Irrigation Inspector

Landscape Irrigation Auditing and Management
 (16 Hours)
 Irrigation Water Management of Commercial Landscapes
 (8 Hours)

Courses Being Offered.....

Landscape Irrigation Auditing and Management

(16 Hours)

This two-day class covers irrigation system auditing and how to use ET (evapotranspiration) to develop irrigation schedules that conserve water while promoting quality landscapes. Students gain hands-on experience by performing three audits which includes system troubleshooting, catch can testing, determination of soil type and root depth, among other topics, and producing auditing reports. Students learn how to produce seasonal irrigation schedules using software, websites and hand calculations.

Software and Manual

Registration includes copies of the auditing manual and the *Texas Landscape Irrigation Auditing and Scheduling Software*. This software is not for sale and is only available to course participants.

LIA Certification

Persons who complete the course are eligible to take our exam to become *Texas Certified Landscape Irrigation Auditors*. Upon passing the exam, you will receive a certificate acknowledging this achievement and be listed in our on-line directory of certified auditors. *Note: There are currently no clear regulations governing auditing in Texas, and certification is voluntary.*

Drip Irrigation Workshop

(8 Hours)

This course provides an overview of drip irrigation systems design and management as well a review of hydraulics of irrigation systems. Instruction is provided on the types of drip products available and how to evaluate their performance characteristics and quality. Topics include the advantages and disadvantages of drip irrigation in landscape applications and product selection. Instruction is provided on design and management considerations for different plant materials and soils, as well as filtration and clogging control. Instruction is also provided on how to determine proper spacing of drip tubing and tapes and how to select system components based on manufacturers product specifications.

Irrigation Water Management of Commercial Landscapes

(8 Hours)

In this class, students learn how to produce seasonal irrigation schedules based on ET including runtimes and number of irrigations per week. Students are introduced to irrigation auditing concepts and receive hands-on experience by testing an actual irrigation system. This course will be useful for landscape contractors, licensed irrigators and managers of large irrigated turf areas, as well as anyone interested in landscape irrigation and water conservation.

ET and Sensor-based (“Smart”) Irrigation Controllers

(8 Hours)

This course will provide instruction on weather and sensor based irrigation controllers commonly referred to as Smart Controllers. Students will learn how ET based controllers produce an irrigation schedule using different technologies. Students will have “hands-on” instruction on controller operation and set-up. The class will also cover smart controller bench testing protocols and related issues.

Automated Weather Stations for Landscape Irrigation

(8 Hours)

This course covers the operation of automated weather stations and their application in promoting irrigation water conservation. Students will learn basic psychometric (or climatic) relationships that influence water demand, electronic terminology, and soil-water-plant relationships for proper irrigation water management. Topics include selection of sensors, data loggers, power supplies and peripheral equipment necessary for downloading and transmitting weather data. Instruction will cover guidelines for installing, calibrating and maintaining weather stations to ensure data quality control. Other topics will include use of weather stations and potential evapotranspiration (PET) networks for automated irrigation scheduling.

Irrigation CAD Workshop

(16 Hours)

In this two-day class, students are introduced to the two most widely-used CAD software packages and receive hands-on training in the use of one for design and specification purposes. Topics include use of the software and sprinkler database for designing systems, performing hydraulic calculations, and producing material and cost estimates. The class will take place in a computer classroom at Texas A&M University. Enrollment is limited. Students should be familiar with personal computers. No experience in CAD is required.

Advanced Irrigation CAD Workshop

(8 hours)

This course is designed for students who have taken our introduction irrigation CAD class, a similar class, or who have had experience with the software. The course will provide an overview of basic concepts and skills as well as some of the more advance features of the software. Topics include the menu system of CAD software, use of the sprinkler database for selecting and locating heads, completing site drawings, assigning zones, manual and automatic pipe sizing, hydraulic calculations, and producing material and cost estimates. The course will place extra emphasis on sprinklers databases and material takeoff lists.

Visit Us on the Web....

TexasET Network:

<http://texaset.tamu.edu>

Provides daily weather and PET (ETo) data for over 32 locations in Texas and contains interactive calculators for determining irrigation needs and runtimes for turf, landscapes and agricultural corps. The site contains historic rainfall and PET (ETo) rates for 30 Texas cities and other resources related to water and irrigation.

Texas A&M School of Irrigation:

<http://irrigation.tamu.edu>

Includes locations and schedules for upcoming classes, complete course descriptions and other information.

Irrigation Technology Center:

<http://itc.tamu.edu>

Provides details on our programs to support landscape and agricultural irrigation in Texas and the status of the planned center to be built at Texas A&M-San Antonio

Complete course descriptions are on the Texas A&M School of Irrigation website - <http://irrigation.tamu.edu>

What to Bring....

A calculator, pen and pad for taking notes. Students in the Auditing and water management classes should wear appropriate clothes and shoes for outdoor activities including rain gear if needed.

Registration information:

HOW TO REGISTRATION

On-Line: <http://agrilifevents.tamu.edu>

By Telephone: 979.845.2604

By Mail/FAX: send registration form to:

Conferences Services
2139 TAMU
College Station, TX 77843-2139

FAX 979.862.4511

Students can also register via each classes link on the School of Irrigation Website, <http://irrigation.tamu.edu>

Confirmation of registration will be mailed/emailed to you upon receipt of the registration form

COURSE INSTRUCTORS

Dr. Guy Fipps, P.E.

Professor and Extension Irrigation Engineer

Charles Swanson

Extension Associate - Landscape Irrigation

Course contents or special needs:

Charles Swanson,

979-845-5614

clswanson@ag.tamu.edu

Guy Fipps,

gfipps@ag.tamu.edu

The Texas A&M School of Irrigation
is a program of the
Texas AgriLIFE Extension Service
and the
Irrigation Technology Center,
administrated through the
Biological and Agricultural Engineering Department,
Texas A&M University, College Station.

Educational programs conducted by the Texas AgriLife Extension Service serve people of all ages regardless of socioeconomic level, race, color, sex, religion, handicap or national origin. The Texas A&M University System, U.S. Department of Agriculture and the County Commissioners Courts Texas Cooperating.
<http://tce.tamu.edu>

Texas A&M School Of Irrigation Spring-Summer 2009 REGISTRATION FORM

<http://irrigation.tamu.edu>

Check the appropriate course:

COURSE	FEE	LOCATION, DATE	
Landscape Irrigation Auditing and Management	\$255	<input type="checkbox"/> Dallas <input type="checkbox"/> El Paso <input type="checkbox"/> Alpine	March 11-12 March 16-17 March 18-19
Landscape Irrigation Auditing Certification Exam	\$75	<input type="checkbox"/> Dallas <input type="checkbox"/> El Paso <input type="checkbox"/> Alpine	March 12 March 17 March 19
Drip Irrigation Workshop	\$145	<input type="checkbox"/> College Station	July 30
Automated Weather Station	\$145	<input type="checkbox"/> College Station	July 31
ET ("Smart") Irrigation Controllers	\$145	<input type="checkbox"/> San Antonio <input type="checkbox"/> Abilene	April 21 April 29
Irrigation Water Management of Commercial Landscapes	\$145	<input type="checkbox"/> San Antonio <input type="checkbox"/> Abilene	April 22 April 30
Irrigation CAD Workshop	\$285	<input type="checkbox"/> College Station <input type="checkbox"/> College Station	May 19-20 August 18-19
Advanced Irrigation CAD	\$145	<input type="checkbox"/> College Station <input type="checkbox"/> College Station	May 21 August 20

Name _____ Company _____

Address _____ Day Phone _____

City _____ State _____ Zip _____

Email _____

Number of Persons _____ List of Additional Persons _____

Total Enclosed (\$) _____

Registration fees may be transferred to a different irrigation short course at no charge as long as notification is received at least 24 hours in advance of the class date, otherwise a \$25 administration charge will be assessed for course changes or reimbursement of registration fees.

<p>Payment Options: <input type="checkbox"/> Check <input type="checkbox"/> Money Order <input type="checkbox"/> Credit Card</p> <p>Checks and Money Orders payable to: <i>AgriLife Extension - Irrigation Short Course</i></p>	<p><i>If paying by credit card:</i></p> <p><input type="checkbox"/> Visa Card Number _____ <input type="checkbox"/> Master Card Exp. Date _____ <input type="checkbox"/> Discover</p> <p>Cardholder Signature _____</p> <p><i>Directions to the classroom and parking instructions will be sent to you upon receipt of the registration form.</i></p>
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