

# ELPT 1455 F90C

## Electronic Applications

### Fall 2014

## Faculty Information

**Name:** Thomas J. Cronick Sr.  
**E-Mail:** [tcronickr@odessa.edu](mailto:tcronickr@odessa.edu)  
**Phone:** 432-335-6309  
**Office:** ET 101

#### *Office Hours*

**Campus Office Hours:**

TO BE ANNOUNCED

**Online Office Hours:**

### **About Your Instructor**

Thomas J. Cronick Sr.

### **Preferred Method of Communication:**

You can contact me by Cell Phone at 432 934-9055 or you can email me at the address above.

### **Expectations for Engagement for Instructor:**

As an instructor, I understand the importance of clear, timely communication with my students. In order to maintain sufficient communication, I will

provide my contact information at the beginning of the syllabus;

respond to all messages within 24 hours if received Monday through Thursday, and within 48 hours if received Friday through Sunday; and,

notify students of any extended times that I will be unavailable and provide them with

alternative contact information (for me or for my supervisor) in case of during the time I am unavailable.

As an instructor, I understand that my students will work to the best of their abilities to fulfill the course requirements. In order to help them in this area, I will

provide clear information about grading policies and assignment requirements in the course syllabus, and

communicate any changes to assignments and/or to the course calendar to students as quickly as possible.

As an instructor, I understand that I need to provide regular, timely feedback to students about their performance in the course. To keep students informed about their progress, I will

post grades for discussion postings within one week of the discussion thread closing.

provide grades for major assignments within 2 weeks of the due date or at least 3 days before the next major assignment is due, whichever comes first.

# Course Syllabus

## Content

**Name:** Thomas J. Cronick Sr.

**E-Mail:** [tcronick@odessa.edu](mailto:tcronick@odessa.edu)

**Phone:** 432-335-6309

**Office:** ET 101

### *Office Hours*

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TO BE ANNOUNCED

**Online Office Hours:**

## **Textbook Information and Required Hardware/Software**

### **Textbook(s):**

*NONE*

### **Hardware:**

NONE

### **Software:**

NONE

### **Websites:**

NONE

## **Information About the Course**

### **Course Description**

*ELPT 1455 Electronic Application*

(46.0301) (3-3) 4 hours

Electronic principles and the use of electronic devices. Includes diodes, transistors, and rectifiers. Includes basic electronic principles; build and operate electronic circuits using semi-conductor devices; test electronic circuits using oscilloscopes and other test instruments, describe the operation of diodes, transistors, diacs, triacs, Silicon Controlled Rectifiers (SCRs), and other electronic devices.

(ICOs 4) Prerequisite: None.

### **Course Prerequisites:**

NONE

## Course Topics:

### Grading

<i>Type of Assignment</i>	<i>Percentage/Points</i>	<i>Learning Objective</i>
<b>LABS</b>	50%/100pts	
<b>TESTS</b>	25%/100pts	
<b>FINAL EXAM</b>	25%/100pts	
	<b>100</b>	<b>TOTAL</b>

### Grading Scale:

“A” = 90-100

“B” = 80-89

“C” = 70-79

“D” = 60-69

“F” = 0-59

## **Grading Policy:**

Please understand that this is a required course for the \_\_\_\_\_ program in order to prepare you \_\_\_\_\_. Quality work and active participation is expected and not to be negotiated. As a general policy, grades will be taken in class. Any written assignments or tests will be graded outside of class. You can expect feedback on assignments within a week's time.

## **Student Course Participation**

As a student, I understand that I am responsible for keeping up with the course. To help with this, I will

- identify alternative computer and internet access in case my primary computer crashes or my internet service is unavailable;
- recognize that the college provides free wi-fi and computer labs during regular campus hours to help me with accessing my course; and,
- understand that my instructor does not have to accept my technical issues as a legitimate reason for late or missing work if my equipment or service is unreliable.

**As a student, I understand that it is my responsibility to communicate quickly with the instructor any issue or emergency that will impact my involvement with or performance in the class. This includes, but is not limited to**

- getting “kicked off” of the system during tests or quizzes;
- having trouble submitting assignments; and
- dealing with a traumatic personal event.

**As a student, I understand that it is my responsibility to understand course material and requirements and to keep up with the course calendar. While my instructor is available for help and clarification, I will**

- seek out help from my instructor and/or from tutors;
- ask questions if I don't understand; and
- access my course several times during the week to keep up with assignments and announcements.

## Course Policies

### Disclaimer

This syllabus is tentative and subject to change in any part at the discretion of the instructor. Any changes will be in accordance with Odessa College policies. Students will be notified of changes, if any, in timely manner.

### Original Effort

The work submitted for this course must be original work prepared by the student enrolled in this course. Efforts will be recognized and graded in terms of individual participation and in terms of ability to collaborate with other students in this course.

## Course Alignment with Industry Standards

### Digital Protocol

Cell phones must be placed on either *vibrate* or *silent* mode and are to be accessed in emergency cases only. The use of laptops or any other digital device is permitted in order to facilitate note-taking relative to instruction. Any written assignments will be submitted electronically on Blackboard. **The electronic recording of the time on Blackboard will be considered the time of assignment submission. Take necessary steps to ensure that your assignments are submitted on “Blackboard” time.** Back-up and/or additional copies of all assignments submitted is encouraged. **Computers/printers are available to OC students in the LRC (301-303); therefore, not having access to a computer due to technical issues (crash; corrupted files) will not be considered as an acceptable reason for not completing assignments.** If there is a loss of server connection with Odessa College due to maintenance, then an email will be sent to student with pertinent information and status reports. Assignments submitted electronically need to be **WORD documents (doc or docx).**

## Attendance Policy

Students are expected to attend class regularly. Attendance will be recorded using a “sign-in” sheet. Excessive absences will be grounds for disciplinary action, and will be determined on a case-by-case basis. If you are more than 15 minutes late to class or leave class early without notifying the instructor, this will count as an absence. Students are permitted \_\_\_\_\_ absences before a loss of \_\_\_\_\_ point(s) \_\_\_\_\_.

## AVID

This course has been identified as a course by Career, Technical, and Workforce Education as one in which teaching and learning strategies adopted by AVID will be implemented. As a student in the legal program, you will be expected to develop an understanding of the strategies, to model the strategies, to maintain fidelity of implementation, and to examine how these strategies may impact your effectiveness as a professional in your chosen area of occupation, either through coursework or practicum experience as outlined by the course instructor.

## Grade Inquiry Policy

It is the responsibility of the individual taking this course to maintain accurate track of assignment submissions and grades. There will be opportunities during the semester to meet with the instructor to discuss your academic progress. Contact the instructor to schedule an appointment. Class time will not be used for grade inquiries. All grades are final.

## General Course Requirements

### Attend class and participate.

10. Contribute and cooperate with civility.
11. **Submit assignments on time. Late work will not be accepted. Medical and/or family circumstances that warrant an extension on assignments need to be presented to the instructor. Extensions will be allowed at the instructor’s discretion.**

# Incomplete Policy

An 'Incomplete' grade may be given only if:

12. The student has passed all completed work
13. If he/she has completed a minimum of 75% of the required coursework. A grade of an "I" will only be assigned when the conditions for completions have been discussed and agreed upon by the instructor and the student.

## Course Schedule

*(Tentative and Subject to Change)*

The following chart is a syllabus outline for topics and task. Each topic may include labs, lab questions, and other requirements. The lessons may be given a different order than listed.

LESSON #	GENERAL TOPIC	SPECIFIC TOPIC	LAB\TASK\INFO
1	Intro  Syllabus Review	<ul style="list-style-type: none"> <li>○ Syllabus</li> <li>○ Frequency</li> <li>○ Oscilloscope</li> <li>○ Function Generator</li> </ul>	<ul style="list-style-type: none"> <li>○ QUESTION 01</li> <li>○ LAB 1.1</li> </ul>
2	Basics of  Alternating Current	<ul style="list-style-type: none"> <li>○ Volt<sub>PEAK</sub></li> <li>○ Volt<sub>PEAK TO PEAK</sub></li> <li>○ Volt<sub>RMS</sub></li> <li>○ Scope use</li> <li>○ Voltmeter use</li> </ul>	<ul style="list-style-type: none"> <li>○ QUESTIONS 02</li> <li>○ LAB 2.1</li> </ul>
3		<ul style="list-style-type: none"> <li>○ Series Circuits</li> <li>○ Circuit Calculations</li> </ul>	<ul style="list-style-type: none"> <li>○ QUESTIONS 03</li> <li>○ LAB 3.1</li> </ul>
4		<ul style="list-style-type: none"> <li>○ Scope with AC and DC</li> <li>○ Lissajou Loop</li> </ul>	<ul style="list-style-type: none"> <li>○ LAB 4.1</li> </ul>
5	Diodes	<ul style="list-style-type: none"> <li>○ Identification</li> <li>○ Uses in D.C. Circuits</li> <li>○ Basic Calculations</li> </ul>	<ul style="list-style-type: none"> <li>○ QUESTIONS 5.1</li> <li>○ LAB 5.1</li> </ul>
6	L.E.D.s	<ul style="list-style-type: none"> <li>○ LED Circuit Calculations</li> </ul>	<ul style="list-style-type: none"> <li>○ QUESTIONS 6.1</li> <li>○ LAB 6.1</li> </ul>
7	7 Segment Displays	<ul style="list-style-type: none"> <li>○ 7 Segment Displays</li> <li>○ Common Cathode</li> <li>○ Common Anode</li> </ul>	<ul style="list-style-type: none"> <li>○ LAB 7.1</li> </ul>

8	Zener Diodes	○ Basic Zener Circuits	○ QUESTIONS ○ Lab 8.1
<b>TEST</b>			
10	Transformers  ½ Wave Rectifiers	○ Diode Characteristics ○ Rectification ○ ½ Wave ○ Average Voltage	○ LAB 10.1 ○ QUESTIONS
11	Full Wave Rectifiers	○ Center Tap Transformers	○ LAB 11.1
12	Full Wave Rectifiers	○ Bridge Rectifiers	○ LAB 12.1
<b>TEST</b>			
13	Capacitors	○ Characteristics ○ RC Time Constants	○ LAB 13.1
14	Capacitors	○ Filtering Effects	○ LAB 14.1
15	Capacitors	○ Voltage Ripple	○ LAB 15.1
16	Silicon Controlled Rectifiers	○ Basics and Characteristics ○ Thyristors ○ Gate Current & Voltages ○ Firing Angles ○ DC Voltages	○ LAB 16.1
17	SCR		○ LAB 17.1
18			○ LAB 18.1
19	Triacs	○ Triac Characteristics	○ LAB 19.1
<b>FINAL TEST</b>			

## Institutional Core Objectives (ICOs)

### Description of Institutional Core Objectives (ICO's)

Given the rapid evolution of necessary knowledge and skills and the need to take into account global, national, state, and local cultures, the core curriculum must ensure that students will develop the essential knowledge and skills they need to be successful in college, in a career, in their communities, and in life. Therefore, with the assistance of the Undergraduate Education Advisory Committee, the Coordinating Board has approved guidelines for a core curriculum for all undergraduate students in Texas.

Through the application and assessment of objectives within the institution’s core curriculum, students will gain a foundation of knowledge of human cultures and the physical and natural world; develop principles of personal and social responsibility for living in a diverse world; and advance intellectual and practical skills that are essential for all learning. Appropriate Odessa College faculty periodically evaluates all of the courses listed in the descriptions on the following pages of this catalog and keys them to Odessa College’s Institutional Core Objectives (ICOs), as defined by the Texas Higher Education Coordinating Board (THECB). (Source: *Odessa College Catalog of Courses 2012-2013, page 73*)

## **Odessa College’s Institutional Core Objectives (ICOs):**

- 76. *Critical Thinking Skills* - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
- 77. *Communication Skills* - to include effective development, interpretation and expression of ideas through written, oral and visual communication
- 78. *Empirical and Quantitative Skills* - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
- 79. *Teamwork* - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
- 80. *Personal Responsibility* - to include the ability to connect choices, actions and consequences to ethical decision-making
- 81. *Social Responsibility* - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

### **Course Objectives**

#### **Learning Outcomes**

<b>Outcome</b>	<b>ICO</b>
<b>LIST LEARNING OUTCOMES HERE THAT WILL ALIGN WITH ICO’S</b>	<i>Critical Thinking Skills</i> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information

	<i>Communication Skills</i> - to include effective development, interpretation and expression of ideas through written, oral and visual communication
	<i>Empirical and Quantitative Skills</i> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
	<i>Teamwork</i> - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
	<i>Personal Responsibility</i> - to include the ability to connect choices, actions and consequences to ethical decision-making
	<i>Social Responsibility</i> - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

## **Odessa College Policies**

### **Academic Policies**

Note that the OC Student Handbook states (page 32) that “[i]n cases of academic dishonesty, the instructor has the authority to impose appropriate scholastic penalties. Complaints or appeals of disciplinary sanctions may be filed in accordance with the college due process procedure. Copies of the college due process procedure are available in the office of The Director of Student Life (CC104).”

For more information on your rights and responsibilities as a student at Odessa College, please refer to the following: *The 411 of OC: Student Handbook 2012-2013; Student Rights & Responsibilities* <http://www.odessa.edu/dept/studenthandbook/handbook.pdf>

## **Scholastic Dishonesty**

Scholastic dishonesty shall constitute a violation of these rules and regulations and is punishable as prescribed by board policies. Scholastic dishonesty shall include, but not be limited to, cheating on a test, plagiarism and collusion.

### **"Cheating on a test" shall include:**

- Copying from another student's test paper
- Using test materials not authorized by the person administering the test.
- Collaborating with or seeking aid from another student during a test without permission from the test administrator.
- Knowingly using, buying, selling, stealing or soliciting, in whole or in part, the contents of an unadministered test.
- The unauthorized transporting or removal, in whole or in part, of the contents of the unadministered test.
- Substituting for another student, or permitting another student to substitute for one's self, to take a test.
- Bribing another person to obtain an unadministered test or information about an unadministered test.
- "Plagiarism" shall be defined as the appropriating, buying, receiving as a gift, or obtaining by any means another's work and the unacknowledged submission or incorporation of it in one's own written work.
- "Collusion" shall be defined as the unauthorized collaboration with another person in preparing written work for fulfillment of course requirements. (Source: *Odessa College Student Handbook 2012-2013, page 29-30*)

## **Special Populations/Disability Services/Learning Assistance**

Odessa College complies with Section 504 of the Vocational Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. If you have any special needs or issues pertaining to your access to and participation in this or any other class at Odessa College, please feel free to contact me to discuss your concerns. You may also call the Office of Disability services at 432-335-6861 to request assistance and accommodations.

Odessa College affirms that it will provide access to programs, services and activities to qualified individuals with known disabilities as required by **Section 504 of the Rehabilitation Act of 1973 and Title II of the Americans with Disabilities Act of 1990 (ADA)**, unless doing so poses an undue hardship or fundamentally alters the nature of the program or activity. Disabilities may include hearing, mobility or visual impairments as well as hidden disabilities such as chronic medical conditions (arthritis, cancer, diabetes, heart disease, kidney disorders, lupus, seizure disorders, etc.), learning disabilities or psychiatric or emotional disabilities. A student who comes to Odessa College with diagnosed disabilities which may interfere with learning may receive accommodations when the student requests them and submits proper documentation of the diagnosis. A Request for Accommodations form and guidelines for beginning the request process are available in the OC Help Center or on the Odessa College web site at [www.odessa.edu/dept/counseling/disabilities.htm](http://www.odessa.edu/dept/counseling/disabilities.htm). The college strives to provide a complete and appropriate range of services for students with disabilities such as assistance with testing, registration, information on adaptive and assistive equipment, tutoring, assistance with access and accommodations for the classroom where appropriate. For information regarding services, students with disabilities should contact the Office of Disability Services in the OC Help Center located in Room 204 of the Student Union Building or call 432-335-6433. (Source: *Odessa College Catalog of Courses 2012-2013*, page 52)

## **Dropping a Course or Withdrawing from College**

Students wishing to drop a non-developmental course may do so online using WebAdvisor, at the Wrangler Express, or Registrar's Office. A student wishing to drop a developmental course or withdraw from college should obtain a drop or withdrawal form from the Wrangler Express or the Registrar's Office. Students are encouraged to consult with instructors prior to dropping a class. Students may not completely withdraw from the college by use of the Web. Students must drop a class or withdraw from college before the official withdrawal date stated in the class schedule. Students who are part of the Armed Forces Reserves may withdraw with a full refund if the withdrawal is due to their being ordered into active duty. A copy of the student's orders must be presented to the Registrar's Office at the time of the withdrawal. For details, please contact the Office of the Registrar. **No longer attending class does not automatically constitute withdrawal from that class, nor does a student's notification to an instructor that the student wishes to be dropped. Failure of a student to complete the drop/withdrawal process will result in a grade of "F."** (Source: *Odessa College Catalog of Courses 2012-2013*, page 36)

## Student Support Services and Technical Support

### Blackboard Support

For Blackboard username and password help and for help accessing your online course availability and student email account contact the Student Success Center at 432-335-6878 or online at [https://www.odessa.edu/dept/ssc/helpdesk\\_form.htm](https://www.odessa.edu/dept/ssc/helpdesk_form.htm).

### Learning Resource Center (LRC; Library)

The Library, known as the Learning Resources Center, provides research assistance via the LRC's catalog (print books, videos, e-books) and databases (journal and magazine articles). Research guides covering specific subject areas, tutorials, and the "Ask a Librarian " service provide additional help.

### Student Success Center (SCC)

Located in the LRC, the Student Success Center (SSC) provides assistance to students in meeting their academic and career goals. We strive to provide new and updated resources and services at no charge to OC students. Academic support services include tutoring, study skills training, workshops, and the mentoring program. Tutoring is available for a variety of subjects including college mathematics, English, government, history, speech, chemistry, biology, and all developmental coursework. Appointments are preferred, but walk-ins will be served as soon as possible. Smarthinking online tutoring is also available. All computers in the center have Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing and mathematical skills. The center also offers special assistance to students preparing for the THEA/COMPASS test. Computer lab assistants are available to assist students with student email, Blackboard, OC portal, Course Compass and more. For more information or to make an appointment, please call 432-335-6673 or visit [www.odessa.edu/dept/ssc/](http://www.odessa.edu/dept/ssc/) (Source: *Odessa College Catalog of Courses 2012-2013, page 54*)

### Student E-mail

Please access your Odessa College Student E-mail, by following the link to either set up or update your account: <http://www.odessa.edu/gmail/>. **Correspondence will be submitted using your Odessa College email as an alternative method to contact you with information regarding this course.**

### Wrangler Express