



MCHN-2403

Fundamentals of CNC Machine Controls

Faculty Information

Name: Carey Taylor

E-Mail: ctaylor@odessa.edu

Phone: 432-335-6475

Office: 142B inside 142

Preferred Method of Communication:

Please call or email for any additional information.

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.

Office Hours

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
7:30am-8:00am	Office Hours SH 142		Office Hours SH 142		
8:00am-8:30am	MCHN Classes 8 A.M. to 11:50 A.M. SH 142		MCHN Classes 8 A.M. to 11:50 A.M. SH 142		
8:30am-9:00am					
9:00am-9:30am					
9:30am-10:00am					
10:00am-10:30am					
10:30am-11:00am					
11:00am-11:30am					
11:30am-12:00pm					
12:00pm-12:30pm					
12:30pm-1:00pm	Office Hours 12:30 P.M. 2:30 P.M. SH 142		Office Hours 12:30 P.M. 2:30 P.M. SH 142		
1:00pm-1:30pm		Office Hours 1: P.M. 2:30 P.M. SH 142			Office Hours 1: P.M. 2:30 P.M. SH 142
1:30pm-2:00pm					
2:00pm-2:30pm					
2:30pm-3:00pm	OC TECHS ECISD Dual Credit SH 142 2:25 P.M. to 4:10 P.M.	OC TECHS ECISD Dual Credit SH 142 2:25 P.M. to 4:10 P.M.	OC TECHS ECISD Dual Credit SH 142 2:25 P.M. to 4:10 P.M.	OC TECHS ECISD Dual Credit SH 142 2:25 P.M. to 4:10 P.M.	
3:00pm-3:30pm					
3:30pm-4:00pm					
4:00pm-4:30pm					
4:30pm-5:00pm					
5:00pm-5:30pm					
5:30pm-6:00pm					
6:00pm-6:30pm	Office Hours SH 142	Office Hours SH 142	Office Hours SH 142	Office Hours SH 142	
6:30pm-7:00pm	MCHN Classes SH 142 6:30 P.M. to 10:20 P.M. SH 142	MCHN Classes SH 142 6:30 P.M. to 10:20 P.M. SH 142	MCHN Classes SH 142 6:30 P.M. to 10:20 P.M. SH 142	MCHN Classes SH 142 6:30 P.M. to 10:20 P.M. SH 142	
7:00pm-7:30pm					
7:30pm-8:00pm					
8:00pm-8:30pm					
8:30pm-9:00pm					
9:00pm-9:30pm					
9:30pm-10:00pm					

NOTES: Available by appointment Fridays from 9 A.M. to 12 Noon Office Phone # 432-335-6475

Textbook Information and Required Hardware/Software

Required Texts: **Precision Machining Technology** **2nd edition**
ISBN-13: 978-1-305-62509-9
ISBN-10: 1-305-62509-9

Required Tools:

- 1. Clear Safety Glasses (Instructor will issue 1st pair)**
- 2. 3 Ring Binder, Notebook Paper & Graph Paper, Pencils, and Pens**
(OC Bookstore has these items)

All students **must** have required Text Book & Supplies by the 3rd class or arrangements made with Instructor. After the 3rd class, students not prepared for class will be dismissed from each class with an Un-excused absence. (See Attendance Policy at the top of Page 4)

You are encouraged to buy the following optional supplies.

1. 6 inch steel rule (M&M Sales or Cameron Tools)
2. Machinery's Handbook
3. Tape Measure (8 ft., 10 ft., 25ft)
4. Calculator (Scientific calculator or Machinist Calculator Pro are acceptable)

Information About the Course

Course Description: MCHN 2403 Fundamentals of Computer Numerical Controlled (CNC) Machine Controls (48.0501) (2 - 6) 4 hours Programming and operation of Computer Numerically Controlled (CNC) machine shop equipment. (ICOs 1, 2, 3, 4)

Course Student Learning Outcomes

Outcome	ICO
The student will use these skills to perform basic and advanced operations on CNC turning and machining centers with their class project.	Critical Thinking Skills - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information
Students will learn and understand industry terminology, interpret machining drawings, and follow written and verbal instructions to make sketches, select material, setups and machine projects.	Communication Skills - to include effective development, interpretation and expression of ideas through written, oral and visual communication
The student will use numerical data to understand related machine drawings and setup machines to manufacture projects.	Empirical and Quantitative Skills - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions
Students will develop work skills and habits necessary to work in a manufacturing environment as part of a production team.	Teamwork - to include the ability to consider different points of view and to work effectively with others to support a shared purpose or goal
Students will develop ethical choices, actions and consequences for the production and inspection of welded products used in a manufacturing environment.	Personal Responsibility - to include the ability to connect choices, actions and consequences to ethical decision-making
Students will use their skills and knowledge to engage in community outreach and volunteer programs. The students will become effective community citizens though these activities.	Social Responsibility - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities

Course Prerequisites:

Prerequisite or Co-requisite: MCHN 1438 or consent of department chair.

Grading

<i>Type of Assignment</i>	<i>Percentage/Points</i>	<i>Learning Objective</i>
Homework Avg.	10%	
Section Quiz Total	20%	
Lab Work	50%	
Professionalism	10%	
Final Exam	10%	
	100%	TOTAL

Grading Scale:

"A" = 90-100

"B" = 80-89

"C" = 70-79

"D" = 60-69

"F" = 0-59

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.

As a student, I understand that I will have the opportunity to provide feedback on my experience in this course through an end-of-course Student Evaluation of Instruction (SEI).

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 a timely manner.

Original Effort

The work submitted for this course must be original work prepared by the student enrolled in this course.

Course Alignment with Industry Standards

This course follows the guidelines set forth by the TEXAS CAREER TECHNICAL / WORKFORCE EDUCATION MANUAL, “**WECM**”.

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 learning.

For online submissions, 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 students with pertinent information and status reports. Assignments submitted electronically need to follow the file-type requirements provided by the instructor.

Attendance Policy

Students are expected to attend class regularly. Attendance will be recorded daily at the beginning of class and at class end. 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 2 absences before a loss of point(s). If the student has incurred 7 absences in the course, the instructor will recommend withdrawing from the course to avoid course failure.

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

It is the responsibility of the student to keep track of assignment submissions and grades. At any point, you are welcome to meet with the instructor to discuss your academic progress. Contact the instructor to schedule an appointment.

General Course Requirements

- 1. Attend class and participate**
- 2. Contribute and cooperate with civility.**
- 3. 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:

1. The student has passed all completed work
 2. 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.
 3. An Incomplete form is submitted
-

Course Schedule

Schedule is Tentative and Subject to Change depending on Students ability to complete assignments.

Odessa College Precision Manufacturing Technology MCHN 2403 Fund. Of CNC Machine Controls

Fall 2015 Class Schedule

Page	Class	Instructional Approach	Topic	Assignment	Assignment Submission
42	WK1		Introduction to Safety	S2U1	Week 1
				Notebooks checked weekly	
562	WK1 - WK6		CNC Basics	S8U1	Week 2
			Introduction to CNC		
578	WK1 - WK6		Turning	S8U2	Week 2
			CNC Turning:		
593	WK1 - WK6		Programming	S8U3	Week 3
			Introduction to CNC		
633	WK7 - WK10		Milling	S8U5	
648	WK10 - WK13		CNC Milling: Programming	S8U6	
			Measurement Systems &		
63	WK1 - WK6		Machine Tool Math	S2U2	Week 3
			Maintenance, Lubrication,		
190	WK1 - WK6		& Cutting Fluid	S2U8	Week 3
200	WK4 - WK6		Understanding Drawings	S3U1	Week 4
82	WK5 - WK7		Semi-Precision Measurement	S2U3	Week 4
98	WK5 - WK7		Precision Measurement	S2U4	Week 4
				Notebooks checked weekly	

**WK13 -
WK16**

**Projects determined by
Instructor**

Dec. 7th

Class / Exam

**Comprehensive Written
Final Exam**

3	Extra Credit	Introduction to Machining	S1U1
20	Extra Credit	Careers In Machining	S1U2
28	Extra Credit	Workplace Skills	S1U3
		Quality Assurance, Process	
147	Extra Credit	Planning, & Quality Control	S2U5
		Metal Composition &	
157	Extra Credit	Classification	S2U6

175	Extra Credit	Heat Treatment of Metals	S2U7
698	Extra Credit	Computer-Aided Design & Computer-Aided Machining	S8U8
620	Extra Credit	CNC Turning: Setup & Operations	S8U4
683	Extra Credit	CNC Milling: Setup & Operations	S8U7

General Education – Core Objectives (COs)

Description of Core Objectives (CO'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 (COs), as defined by the Texas Higher Education Coordinating Board (THECB). (Source: *Odessa College Catalog of Courses 2012-2013, page 73*)

Odessa College's Core Objectives (COs):

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

Student Learning Outcomes (SLOs)

Student Learning Outcome(s)	Core Objectives (CO's)
<p>The student will use these skills to perform basic and advanced operations on CNC turning and machining centers with their class project.</p>	<p><i>Critical Thinking Skills</i> - to include creative thinking, innovation, inquiry, and analysis, evaluation and synthesis of information</p>
<p>Students will learn and understand industry terminology, interpret machining drawings, and follow written and verbal instructions to, make sketches, select material, and setup and machine projects.</p>	<p><i>Communication Skills</i> - to include effective development, interpretation and expression of ideas through written, oral and visual communication</p>
<p>The student will use numerical data to understand related machine drawings and setup machines to manufacture projects.</p>	<p><i>Empirical and Quantitative Skills</i> - to include the manipulation and analysis of numerical data or observable facts resulting in informed conclusions</p>
<p>Students will develop work skills and habits necessary to work in a manufacturing environment as part of a production team.</p>	<p><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</p>
<p>Students will develop ethical choices, actions and consequences for the production and inspection of machined products used in a manufacturing environment.</p>	<p><i>Personal Responsibility</i> - to include the ability to connect choices, actions and consequences to ethical decision-making</p>
<p>Students will use their skills and knowledge to engage in community outreach and volunteer programs. The students will become effective community citizens through these activities.</p>	<p><i>Social Responsibility</i> - to include intercultural competence, knowledge of civic responsibility, and the ability to engage effectively in regional, national, and global communities</p>

Odessa College Policies

Tuition Discounts

The **“First Course is Free”** discount waives standard tuition and fees for the first 3 credit hours taken at Odessa College. The discount applies to high school graduates taking their first class at Odessa College as well as transfer students taking their first class at Odessa College.

The **“Academic Progress Discount”** provides a 10% tuition discount upon completion of 30 credit hours until reaching 45 credit hours. It provides a 20% discount upon completion of 45 credit hours until reaching 60 credit hours. Student must maintain a 2.0 GPA to remain eligible for the discount.

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 <http://www.odessa.edu/dept/counseling/disabilities/index.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 Web Advisor, 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

I can't log into my Blackboard Course, who do I contact?

Contact the Student Success Center: 432-335-6673 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm. The SSC can provide you with your Blackboard login name. If you are not sure what your password is, they can reset your password.

I'm having a problem in my Blackboard Course, who do I contact?

For any problem that you have in your online course, always contact your Instructor first. Refer to the Instructor's Contact Information area of the Syllabus for their preferred method of contact and the expected response time.

Additional Blackboard Help Resources:

Service	Assistance Provided	Available
Blackboard Help for Students	Website with a searchable list of topics on how to navigate and use Blackboard for online courses.	Online Click here.
Blackboard On Demand Learning Center for Students	This website provides an extensive list of short tutorial videos for student activities performed in Blackboard.	Online Click here.
Blackboard Collaborate: First Time Users	If you have never used Blackboard Collaborate before, this website provides a system requirements check, configuration instructions, and training and resources area.	Online Click here.
Blackboard Collaborate: Essentials for Participants	This website provides essential information for Participants of Collaborate sessions. Any Collaborate user, whether first-time or experienced, would benefit from reviewing the information here.	Online Click here.

Student E-mail Support

How do I set up, access, or update my Odessa College Student E-mail account?

Go to this website and follow the directions on the page: <http://www.odessa.edu/gmail/>.

I can't access my student email! I forgot my password!

Contact the Student Success Center: 432-335-6673 or online at https://www.odessa.edu/dept/ssc/helpdesk_form.htm. They can provide you with assistance in

accessing your student email (created by OC) and can also assist with resetting your student email password. Make sure to have your student ID number available!

Your Blackboard login name is associated with your OC created student email account. All Correspondence for this course will be submitted using your Odessa College student email address.

Support for Students with Disabilities

How do I contact the Office of Special Populations?

Main Number	432-335-6861
Campus Location	SUB 204N in the Student Union Building
Email	Becky Rivera-Weiss - brivera@odessa.edu
Website	To find out more about services provided by the Special Populations office, please visit: http://www.odessa.edu/dept/counseling/disabilities/index.htm

Learning Resources Center (LRC; Library)

MURRY H. FLY LIBRARY

Main Number	432-335-6640
Email	library@odessa.edu
Campus Location	1 st floor of the Learning Resources Center (LRC)
Website with Additional Help and Information	http://www.odessa.edu/dept/library Ask A Librarian: https://www.odessa.edu/dept/library/askalibrarian.htm

Equipment and Services Provided:

The Murry H. Fly Library, located in the Learning Resources Center, is a full-service academic library whose mission is to provide research and other educational resources to the Odessa College community.

Super Search, the library's centralized search engine, offers easy access locating materials in the library's collection. The following resources are available through the library.

- **Books, Videos, CDs** – 30,000+ books and 4,000+ media holdings

- **Ebooks** – 50,000+
- **Specialized databases** for current students – 60+
*Remote access requires OC login
- **Magazines, newspapers, & scholarly journals**
- **Interlibrary loan services** of material from participating Texas libraries
- **Online Tutorials**
*Tips for research strategies
- **Computers for online research, homework, and printing**
- **Selected textbooks** for short-term use in the library only
- **Photocopier and FAX service** – There is a charge associated with these services
- **VHS/DVDs** – in library use only
- **Quiet study rooms** for individual and group study
*Must check in at the main desk
- **Larger meeting rooms** – for events, educational workshops, and group computer use. Reservations required

TUTORING SERVICES

Odessa College provides tutoring services to assist students in meeting their academic and career goals. The College strives to provide new and updated resources and services at no charge to OC students. Computers provide Internet access, Microsoft Office, and software resources to assist OC students in improving their reading, writing, and mathematical skills.

Appointments are preferred, but walk-ins are accepted as availability allows. Tutoring services are offered in a number of locations on and off campus. For more information or to make an appointment:

- **Student Success Center**, located in the Learning Resources Center, provides support for a variety of academic subjects as well as TSI test prep, AVID, study skills training, workshops, assistance with Blackboard, student email, OC portal, student orientation tours, and more.

Main Number	432-335-6878
Email	studentsuccesscenter@odessa.edu
Campus Location	1st floor of the Learning Resources Center (LRC)
Website with Additional Help and Information	http://www.odessa.edu/dept/ssc/
Live Online Chat Assistance	Click Here Subject to availability. (If no one is currently available, call or email)

- **Math Lab**, located on the second floor of the Wood Math and Science building, provides support for all math-related tutoring

Math Lab Main Number	432-335-6537
Email	mymathlab@odessa.edu
Campus Location	Wood Math and Science building, Room 201
Website with Additional Help and Information	http://www.odessa.edu/dept/ssc/math_lab.htm Provides support for all math related tutoring

- **Synapse Lab**, located on the third floor of the Wood Math and Science building, provides support for all science-related tutoring

Synapse Lab Main Number	Coming soon
Email	SynapseLab@odessa.edu
Campus Location	Wood Math and Science building, Room 308
Website with Additional Help and Information	http://www.odessa.edu/dept/biology/tutoring.htm Provides support for all science related tutoring

- **Writing Center**, located on the first floor of Wilkerson Hall, provides support for all writing-related tutoring

Writing Center Main Number	Coming soon
Email	writingcenter@odessa.edu
Campus Location	Wilkerson Hall, 106
Website with Additional Help and Information	Coming soon Provides support for writing related tutoring

- **Offsite tutoring services** are available in the Rodeo and Agriculture Graham Center located in Gardendale

- **Online tutoring** is available 24/7 through Upswing, which will start Fall II, a web-based, student-friendly service

Veterans Support

How do I contact the office for Veteran's Outreach?

Main Number	432-335-6833
Campus Location	204M (Help Center) in the Student Union Building
Email	Gloria Rangel - grangel@odessa.edu
Website	To find out more about services provided by the Veteran's Outreach office, please visit: http://www.odessa.edu/dept/counseling/veterans/index.htm