

**El Paso Community College**  
**Syllabus**  
**Part II**  
**Official Course Description**

<b>SUBJECT AREA</b>	<u>Diagnostic Medical Sonography</u>
<b>COURSE RUBRIC AND NUMBER</b>	<u>DSVT 1200</u>
<b>COURSE TITLE</b>	<u>Principles of Vascular Technology</u>
<b>COURSE CREDIT HOURS</b>	<u>2                    2 : 1</u>
	Credits            Lec    Lab

**I. Catalog Description**

Introduces non-invasive vascular technology modalities. Includes 2D imaging, Doppler, plethysmography, and segmental pressures. Emphasizes performing basic venous and arterial imaging and non-imaging exams. A grade of "C" or better is required in this course to take the next course. **Prerequisite: DMSO 1302. (2:1). Lab fee.**

**II. Course Objectives**

A. Unit I. Doppler Physics

1. Apply Doppler Shift Principles.
2. Apply the Doppler Shift Equation.
  - a. Explain transmitted frequency.
  - b. Explain received frequency.
  - c. Employ the correct Doppler angle and steering.
  - d. Perform Color Doppler.
  - e. Perform Power Doppler.

B. Unit II. Carotid System

1. Identify carotid system anatomy.
2. Demonstrate scanning positions and planes.
3. Interpret plaque characterization.
4. Apply scanning protocol to carotid system.
5. Evaluate and interpret stenosis of carotid system.
6. Evaluate vertebral and subclavian arteries.

C. Unit III. Lower Extremity Vascular Systems

1. Identify venous anatomy of lower extremities.
2. Review patient history and symptoms regarding lower extremity veins.
3. Interpret venous pathology of lower extremities.
4. Apply scanning protocols to lower extremity veins.
5. Identify arterial anatomy of lower extremities.
6. Review patient history and symptoms regarding lower extremity arteries.
7. Interpret arterial pathology of lower extremities.
8. Apply scanning protocols to lower extremity arteries.

D. Unit IV. Non-Invasive Physiologic Arterial Studies

1. Review patient history and symptoms.
2. Calculate and analyze segmental pressure studies.
  - a. ankle brachial pressures
  - b. toe brachial pressures
3. Examine pulse volume recordings.
4. Interpret continuous wave arterial Doppler.

E. Unit V. Upper Extremity Vascular Systems

1. Identify venous anatomy of upper extremities.
2. Review patient history and symptoms regarding upper extremity veins.
3. Interpret venous pathology of upper extremities.
4. Apply scanning protocols to upper extremity veins.
5. Identify arterial anatomy of upper extremities
6. Review patient history and symptoms regarding upper extremity arteries
7. Interpret arterial pathology of upper extremities.
8. Apply scanning protocols to upper extremity arteries.

**III. THECB Learning Outcomes (WECM)**

1. Describe fundamental vascular concepts of duplex and non-imaging procedures including positioning the patient, equipment, and other devices.

**IV. Evaluation**

A. Preassessment

There is no preassessment for this course

B. Postassessment

Postassessment follows the completion of two (2) units.  
Written examinations are used, including multiple choice, completion, matching, true/false, and brief essay questions.

C. Challenge Exam

There is no challenge exam for this course.

D. Grading Scale

100 – 92 = A  
91 – 83 = B  
82 – 75 = C  
74 – 67 = D  
66 – 0 = F

**No grade of less than “C”** will be considered as successful completion of a professionally related course. **Grades of .5 or higher** will be rounded to the next whole number grade.

E. Final Grade Determination

Take Home Exams and Pop Quizzes

20% of final grade

Unit Exams	35% of final grade
Worksheets/Homework	10% of final grade
Comprehensive Final	<u>35%</u> of final grade
	100%

F. Exams

All exams are written and consist of the following formats: multiple-choice, true-false, matching, essay, or a combination of any of the preceding.

**NO RE-TESTS ARE GIVEN:**

An exam missed because of an excused absence must be made up on the day that the student returns to class. An exam missed because of an unexcused absence may not be made up and the student will receive a grade of zero (0) for that exam.

Frequent unannounced pop quizzes are given at the beginning of the class period. Tardiness or absence on these days results in a zero (0) on that particular pop quiz. No pop quizzes, under any circumstances, may be made up.

G. Cheating

Any student caught cheating will have his/her exam withdrawn and be given a zero (0) for that exam.

H. Attendance

An absence is considered excused if the student informs the instructor of his/her absence before that class period begins.

**AN ACCUMULATION OF THREE UNEXCUSED ABSENCES WARRANTS THE STUDENT BEING DROPPED FROM THE CLASS FOR EXCESSIVE ABSENCES.**

I. Tardiness

Tardiness is defined as being 1 minute or more late to class. Students tardy in excess of 10 minutes are considered absent.

**V. Disability Statement (Americans with Disabilities Act [ADA])**

EPCC offers a variety of services to persons with documented sensory, mental, physical, or temporary disabling conditions to promote success in classes. If you have a disability and believe you may need services, you are encouraged to contact the Center for Students with Disabilities to discuss your needs with a counselor. All discussions and documentation are kept confidential. Offices located: VV Rm C-112 (831-2426); TM Rm 1400 (831-5808); RG Rm B-201 (831-4198); NWC Rm M-54 (831-8815); and MDP Rm A-125 (831-7024).

**VI. 6 Drop Rule**

Students who began attending Texas public institutions of higher education for the first time during the Fall 2007 semester or later are subject to a 6-Drop limit for all undergraduate classes. Developmental, ESL, Dual Credit and Early College High School classes are exempt from this rule. All students should consult with their instructor before dropping a class. Academic assistance is available. Students are encouraged to see Counseling Services if dropping because exemptions may apply. Refer to the EPCC catalog and website for additional information.