

**Oregon Institute of Technology
Medical Imaging Technology Department
Vascular Technology Program Assessment
2012-2013**

I. Introduction

The Vascular Technology Program officially began in 1992 and is one of the five current Klamath on-campus, Medical Imaging programs at Oregon Institute of Technology. Enrollment trends from 2002–2012 have varied from 49 to 89 students per year in the program. For the year of 2012–2013, there were 62 students enrolled in the program. From the beginning of the program to the end of spring term, 2012, the average retention rate in the Vascular Technology program was 76.5%. Of the 2009 cohort of students that graduated in 2012, retention was 88.9%. The Job placement for the class of 2012 at graduation was approximately 74%, and the remaining 26% were attempting to find jobs across the U.S.A. The average salary for the graduates of the class of 2012 was approximately \$54,631.50 per year. The credentialing pass rate through the American Registry of Diagnostic Medical Sonographers for the graduating class of 2012 was 93.4%.

II. Program Purpose, Objectives and Student Learning Outcomes

The Vascular Technology faculty met one time formally and multiple times informally during Fall convocation activities in 2012 and agreed to adopt the student learning outcomes as suggested by the programmatic accrediting body known as the, “Joint Review Committee of Diagnostic Medical Sonography.” The final version is listed below. Beginning the spring of 2013, and then every three years thereafter, the faculty began to seek the input from an Advisory Board represented by members from each of the affiliated vascular extern sites.

Vascular Technology Program Purpose

The Bachelor of Science program in Vascular Technology provides students with the knowledge, clinical skills and behaviors to become competent vascular technology professionals.

Program Educational Objectives

1. The program prepares students to utilize diagnostic techniques, sound judgment and good decision making to provide patient services.
2. The program communicates the importance of becoming credentialed in the profession of vascular technology.
3. The program prepares students who think critically, communicate effectively and exemplify professional ethics.
4. The program conveys the importance of becoming life-long learners and responsible citizens.

* Beginning the spring of 2013, and then every three years thereafter, the faculty began to seek the input from alumni and employer surveys to assess the program educational objectives.

Student Learning Outcomes

1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.
2. The student will demonstrate the ability to work effectively in teams.
3. The student will demonstrate an ability to provide basic patient care and comfort.
4. The student will employ professional judgment and discretion including ethics.
5. The student will demonstrate knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal vascular anatomy.
6. The student will demonstrate knowledge and understanding of vascular physiology, pathology, and pathophysiology.
7. The student will demonstrate knowledge and understanding of vascular physical principles and instrumentation.
8. The student will demonstrate knowledge and understanding of clinical vascular diagnostic procedures and testing
9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

Additional Student Learning Opportunities

Students in the Vascular Technology Program are given the opportunity to twice yearly attend conferences through the Vascular Association of Southern Oregon in Medford, OR. Students are also encouraged to attend the Annual Society of Vascular Ultrasound conferences when held on the West Coast or near their extern sites during the student's senior year.

Also, students in the Vascular Program spend a full four terms on extern during their senior year. In addition to the valuable hands-on learning experience they realize working with actual patients, the students also have the opportunity to join grand rounds with vascular surgeons, observe vascular surgeries and attend physicians quality assurance conferences.

III. Three-Year Cycle for Assessment of Student Learning Outcomes

The following are the nine main outcomes which will be assessed at a rate of three each per year on a three-year cycle, as listed in Table #1 below.

Vascular Technology Student Learning Outcomes Assessment Schedule	2012 - 2013	2013 - 2014	2014 - 2015
1. The student will demonstrate the ability to communicate effectively in oral, written and visual forms.		X	
2. The student will demonstrate the ability to work effectively in teams.	X		
3. The student will demonstrate an ability to provide basic patient care and comfort.			X
4. The student will employ professional judgment, and discretion including ethics	X		
5. The student will demonstrate knowledge and understanding of human gross anatomy sectional anatomy and normal and abnormal vascular anatomy		X	
6. The student will demonstrate knowledge and understanding of vascular physiology, pathology, and pathophysiology.			X
7. The student will demonstrate knowledge and understanding of vascular physical principles and instrumentation.			X
8. The student will demonstrate knowledge and understanding of clinical vascular diagnostic procedures and testing		X	
9. The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.	X		

Table #1, Assessment cycle.

IV. Summary of 2012-13 Assessment Activities

A. Student Learning Outcome #2: The student will demonstrate the ability to work effectively in teams.

The Vascular Technology faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Vascular Technology courses can be found in Appendix A, Student Learning Outcome-Course Matrices Table A1.

Direct Assessment #1

The faculty assessed this outcome with 17 students in VAS 385 during Spring term 2012 using a team project to design a vascular lab. The faculty rated the proficiency of students using the performance criteria described in Table #2 below.

Performance Criteria	Assessment Methods	Measurement Scale	Minimum Acceptable Performance	Results
Achieves Goal/ Purpose	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	100%
Assumes Roles & Responsibilities	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	94.1%
Communicates Effectively	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	100%
Reconciles Disagreements	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	100%
Shares Work Appropriately	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	91.4%
Develops Strategies/ Actions	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	100%
Cultural Adaptation	Grading Rubric	1-4 scale per rubric proficiency criteria	90% with 3.0 or higher	100%

Table #2

Students performed above expectation in all categories for PSLO #2. The cohort of students evaluated for this activity was predominantly of the Millennial Generation. Studies suggest students of this generation are well prepared to engage teamwork, but have a tendency to put forth the minimum amount of effort required. As evidenced by the lower scores for “Assumes Roles & Responsibilities” and “Shares Work Appropriately,” the predictions of the studies were correct.

As a result of the data, the Oregon Tech Vascular Technology program faculty decided to maintain the same level of teamwork activity included in the program.

Direct Assessment #2

The faculty also assessed this outcome with 17 students in VAS 420 from the 2011-2012 academic year, Spring term, using randomly selected student competencies where outcome #2 is assessed by industry. The faculty rated the proficiency of students used in the performance criteria described in Table #3 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Recognizes role as a vascular lab team member.	Student Competency Evaluation #2, a ₁ .	1 – 100% Scale	90% with 90% or higher	100%
Demonstrates initiative in vascular lab team effort	Student Competency Evaluation #2, a ₂ .	1 – 100% Scale	90% with 90% or higher	100%
Gathers appropriate quality assurance data for vascular lab team effort	Student Competency Evaluation #2, b.	1 – 100% Scale	90% with 90% or higher	100%
Works effectively as a team member on vascular lab projects	Student Competency Evaluation #2, c.	1 – 100% Scale	90% with 90% or higher	100%

Table #3

Students performed above expectations in all categories for PSLO #2. The Vascular faculty was pleased with the positive feedback from industry regarding how well extern students are prepared for the teamwork and group activity required in the field of Vascular Technology. The faculty also recognized the fact that what has been taught on campus is complimented and completed on extern in an actual functioning hospital/clinical vascular lab.

As a result of the data, the Oregon Tech Vascular Technology program faculty decided to continue to carefully look to industry for any new requirements in regard to teamwork or group activity in vascular labs in the field.

Indirect Assessment #2

The faculty assessed this outcome with 17 students in VAS 420 from the student 2012 exit surveys asking them to rate how well the Oregon Tech Vascular Technology program and their extern site prepared them for this learning outcome #2. The students rated their proficiency using the performance criteria described in Table #4 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Student rating of how OIT prepared them for outcome #2.	Exit Survey	1 – 4 Scale	90% with a score of 3.0 or better	94%
Student rating of how their extern site prepared them for outcome #2.	Exit survey	1 – 4 Scale	90% with a score of 3.0 or better	100%

Table #4

Students performed above expectations in both categories for PSLO #2 as listed above. As evidenced by the data above, the clinical experience tended to complete the teamwork/group training as required by the field of vascular technology.

As a result of the data, the Oregon Tech vascular technology faculty agreed to maintain the same levels of teamwork emphasis within all applicable courses.

B. Student Learning Outcome #4: The student will employ professional judgment, and discretion including ethics

The Vascular Technology faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Vascular Technology courses can be found in Appendix A, Student Learning Outcome-Course Matrices Table A2.

Direct Assessment #1

The faculty assessed this outcome with 20 students in VAS 365 during Fall term 2012 using an Institutional Student Learning Outcome ethics homework assignment and rubric. The faculty rated the proficiency of students used in the performance criteria described in Table #5 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results - % with Target. or higher
Knowledge of Code	Rubric Graded Assignment	1-4 scale for all 3 provisions	90% with 3 or higher for all 3 provisions	90%
Describes Issues	Rubric Graded Assignment	1-4 Scale	90% with 3 or higher	90%
Describes Parties	Rubric Graded Assignment	1-4 Scale	90% with 3 or higher	85%
Describes Alternatives	Rubric Graded Assignment	1-4 Scale	90% with 3 or higher	85%
Benefits/Risks of Choice	Rubric Graded Assignment	1-4 Scale	90% with 3 or higher	90%

Table #5

Students performed at or above expectations in the Knowledge of Code, Describes Issues and Benefits/Risks of Choice for PSLO #4. Students performed below expectations in Describes Parties and Actions, but did improve slightly in these categories from when this assessment activity was conducted in 2009. No problems with the exception there were two students who apparently did not understand how to do the assignment even though instructions were clearly given.

As a result of the data, the Vascular Technology faculty agreed to stress the importance of following instructions when performing all assessment activities. As was learned from when this assessment activity was conducted in 2009, the vascular program faculty had agreed to continue to stress the ethical responsibilities vascular technologists have in quality control communications with the vascular surgeons they serve.

Direct Assessment #2

The faculty assessed this outcome with 17 students in VAS 420 from the 2011-2012 academic year, Spring term, using extern student professional evaluations where components of outcome #4 were assessed by industry (clinical supervisors/instructors). The faculty rated the proficiency of students used in the performance criteria described in Table #6 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Professional Judgment/ Critical Thinking	Student Competency Evaluation #4, a.	1 – 100% Scale	90% with a score of 90% or better	100%
Professional Ethics	Student Competency Evaluation #4, b.	1 – 100% Scale	90% with a score of 90 or better	100%

Table #6

Students performed at or above expectations in both categories above for PSLO #4. Although students in the Vascular Program have been taught the Code of Ethics as published by the Society of Vascular Ultrasound, most of the professional evaluation has been taught by evaluation rather than direct teaching methods in professionalism.

More as a result of entitlement issues among the vascular students than the data, the vascular program faculty had determined more direct teaching methods regarding ethics in professionalism must be engaged. Other faculty in the Medical Imaging department had been implementing direct professionalism modules where student in a team environment work with professional ethics issues. It was the intention of the vascular faculty to begin to implement the modules starting in the 2013-2014 academic year.

Indirect Assessment #1

The faculty assessed this outcome with 17 students in VAS 420 from the student 2011-12 exit surveys asking them to rate how well the Oregon Tech Vascular Technology program and their extern site prepared them for this learning outcome #4. The faculty rated the proficiency of students used in the performance criteria described in Table #7 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Student rating of how OIT prepared them for outcome #4	2011 – 2012 Extern Exit Survey	1 – 4 Scale	90% with a score of 3.0 or higher	100%
Student rating of how their extern site prepared them for outcome #4	2011 – 2012 Extern Exit Survey	1 – 4 Scale	90% with a score of 3.0 or higher	100%

Table #7

Students rated their professional training above expectations both in how the Oregon Tech Vascular Program and their extern site prepared them for PSLO #4. Although the student self-rating of how well Oregon Tech and their extern site had trained them in professional judgment and discretion including ethics was high, the faculty had noted and documented deficiencies not expected while the students were on extern.

As a result of the data, the Vascular Program Faculty decided to continue dialogue with students in regard to the above mentioned surveys and extern visitations. The sporadic deficiencies noted while students were on extern was further reason to implement the professional modules mentioned above.

C. Student Learning Outcome #9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

The Vascular Technology faculty conducted an analysis of where this outcome is reflected in the curriculum. The mapping of this outcome in the Vascular Technology courses can be found in Appendix A, Student Learning Outcome-Course Matrices Table A3.

Direct Assessment #1

The faculty assessed this outcome with 20 students in VAS 366 in winter term 2013 using a homework review of Penn State’s publication “An Overview of Diversity Awareness.” A ten question exam was administered and the faculty rated the proficiency of students using the performance criteria described in Table #8 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Cultural Definitions	2 questions from 10 question exam	1 – 2 scale for questions 1 & 6	90% with 1 or more correct answers	100%
Cultural Trends	3 questions from 10 question exam	1 – 3 scale for questions 2, 3, &4	90% with 2 or more correct answers	80%
Cultural Stereotyping	2 questions from 10 question exam	1 – 2 scale for questions 8 & 9	90% with 1 or more correct answers	95%
Cultural Observations	3 questions from 10 question exam	1 – 3 scale for questions 5, 7 & 10	90% with 2 or more correct answers	95%

Table #8

Students performed above expectation in all categories with the exception of Cultural Trends. The Junior students who participated in this assessment exercise learned the importance of cultural diversity awareness in regard to the field of vascular technology during their sophomore year in the VAS 225 Patient Management Processes course.

As a result of the data, the faculty of the Vascular Technology Program decided to continue increased emphasis in learning Cultural Trends in the VAS 225 course and will include more homework assignments reviewing future publications regarding this topic.

Direct Assessment #2

The faculty also assessed this outcome with 17 students in VAS 420 from the 2011-12 senior extern year using random scanning competencies where this outcome is assessed by industry. The faculty rated the proficiency of students using the performance criteria described in Table #9 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target or higher
Appropriately works with interpreters to gather patient history	Student Competency Evaluation #9, a.	1 – 100 Scale	85% with a score of 85% or higher	100%
Avoids demonstration of prejudice	Student Competency Evaluation #9, b.	1 – 100 Scale	85% with a score of 85% or higher	100%
Recognize cultures have different traditions in medicine	Student Competency Evaluation #9, c.	1 – 100 Scale	85% with a score of 85% or higher	100%

Table #9

Students performed above expectations in all categories. Although our extern sites had rated our students highly in this assessment activity, many of the clinical instructors at the time of this assessment activity, have themselves been required to learn more about cultural diversity. Although cultural diversity awareness is required in many hospital based vascular labs, there was only moderate requirements for employee or student evaluation.

As a result of the data, the faculty determined to not only to continue the same rigor in teaching cultural diversity awareness on campus, but decided to work with our clinical extern affiliates to establish continuing assessment criterion.

Indirect Assessment #1

The faculty assessed this outcome with 17 students in VAS 420 from the student 2011-12 exit surveys asking them to rate how well the Oregon Tech Vascular Technology program and their extern site prepared them for this learning outcome #9. The faculty rated the proficiency of students used in the performance criteria described in Table #10 below.

Performance Criteria	Assessment Methods	Measure Scale	Minimum Acceptable Performance	Results -% with Target Av. or higher
Student rating of how OIT prepared them for outcome #9.	Exit Survey	% scale per category used	80% with a score of 3.0 or better	88.2%
Student rating of how their extern site prepared them for outcome #9.	Exit survey	% scale per category used	80% with a score of 3.0 or better	88.2%

Table #10

Students rated themselves at or above expectations in both categories. What the V.T. faculty found interesting was the relatively low percent of students indicating they were sufficiently taught cultural diversity awareness on campus.

As a result of the data, the V.T faculty decided to include more cultural diversity homework assignments while students are on campus. The V.T. faculty also agreed they do not feel adequately trained to teach cultural diversity awareness and could use more education themselves.

V. Evidence of Student Learning

During the 2012-13 academic year, the program faculty formally assessed the student learning outcomes summarized below. Additional details on these assessment activities can be found in the attached assessment report and in department records.

Student Learning Outcome #2: The student will demonstrate the ability to work effectively in teams.

Strengths: Industry rated extern students most satisfactorily as to how well Oregon Tech prepares vascular students for the teamwork activity required in the field. Students also performed or rated themselves at or above expectations in all categories regarding their ability to work effectively in teams.

Areas needing improvement: Although students rated themselves well and met the requirements of the field regarding teamwork, the importance of individual contribution will be emphasized in all related courses.

Plans for improvement: None at this time.

Student Learning Outcome #4: The student will employ professional judgment, and discretion including ethics.

Strengths: Students performed at or above expectations in the Knowledge of Code, Describes Issues and Benefits/Risks of Choice. Students preparing to graduate also rated their professional training at Oregon Tech and at their extern sites quite highly.

Areas needing improvement: Students performed below expectations in Describes Parties and Actions, but did improve slightly in these categories from when this assessment activity was conducted in 2009.

Plans for improvement: In general historically, the vascular faculty had relied heavily on teaching professionalism through evaluation. Efforts in other medical imaging programs at Oregon Tech have caused the vascular faculty to adopt the idea of teaching professionalism more directly and decided to do so by implementing these teaching methods in most all VAS prefix laboratories.

Student Learning Outcome #9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

Strengths: Students performed or rated themselves at or above expectations in all categories of cultural diversity awareness with the exception of Cultural Trends. In general, industry did approve of the level of education the Vascular Technology (VT)

program students do exhibit. Industry is beginning to value more education in cultural awareness.

Areas needing improvement: It was determined that although cultural trends are taught in the VAS 225 Patient Management course, not enough emphasis was placed on the importance of knowing these trends.

Plans for improvement: It was determined by the vascular faculty that more assignments requiring students to evaluate journal articles regarding cultural trends would be added to the VAS 225 course.

VI. Changes Resulting from Assessment.

As a result of assessment activities conducted in 2010 for PSLO #5, it was determined students would be required in VAS 214 to construct a clay model associating branches of the ophthalmic artery as the join with branches of the external carotid artery. From the VAS 214 final, and after having constructed the model, only 45.8% of the students scored correctly. Although the model did help to visualize the branches and communications, the student were only required to annotate the vessels. The clay modes would again be required, but in addition to the normal vessel annotation, the students would be required to parenthetically note if the vessels are branches of the ophthalmic or external carotid arteries.

As a result of assessment activities conducted in 2011 for PSLO #1, it was decided by the Vascular Technology faculty to require students to perform at least 10% more preliminary report writing and oral summation of case studies in the VAS 366 Special Circulatory and VAS 367 Cerebrovascular Disease courses. During the VAS 366 course, students were indeed required to generate more preliminary report writing both through on campus assignments and through a picture archiving and communication systems (PACS) service the students must purchase each term. The students must enter data into the PACS and then a “pre-canned” preliminary report is generated. The students were then assigned to write preliminary reports based on requirements set forth in the VAS 366 course and then to modify their reports to better fit the writing style of the “pre-canned” preliminary reports. Student performance in both activities was favorable, however student reflection regarding what they learned from the exercises was not favorable. The V.T. faculty determined to only assign preliminary report writing to meet the requirements of the VAS 366 and 367 courses. It was also determined that comments will be solicited from this cohort of students when they are on extern to see if they will have any further suggestions on how to better help them prepare for preliminary report writing while on extern. In regard to oral summation, students performed favorably as they were required to better summate the case studies they presented in the VAS 366 laboratory.

VII. Appendices

Appendix A

SLO #2: The student will demonstrate the ability to work effectively in teams.

Courses that are shaded below indicate that the SLO above is taught in the course, students demonstrate skills or knowledge in the SLO, and students receive feedback on their performance on the SLO.

I = Introduced
 R = Reinforced
 E = Emphasized

	Sophomore			Junior			Senior		
Fall	BIO 220	Cardio Physio		BUS 317	Health Care		VAS 420	Extern	R
	BIO 346	Patho Physio		SPE 321	Sm Group	I E			
	PHY 217	Phy of MI		VAS 337	Survey Echo				
	VAS 214	Vas Anatomy		VAS 365	Abd Vas				
				Soc Sci	Soc Sci elective				
Win	BIO 347	Patho Phys II		BUS 316	TQ in Health		VAS 420	Extern	R
	VAS 210	Vas Prin Inst I		CHE 210	Clin Pharm				
	VAS 245	Peri Ven Disease		VAS 366	Circ Probs				
	VAS 335	Radio Vas Anat		VAS 375	Abd Sono				
				HUM Elec	Hum elective				
Spr	VAS 211	Vas Prin Inst II		VAS 367	Cerebro Disease		VAS 420	Extern	R
	VAS 225	Patient Mgmt		VAS 385	Vas Lab Mgmt	E			
	VAS 246	Peri Art Disease		VAS 388	Extern Orient				
	WRI 227	Tech Report		COM Elec	COM elective				
	Soc Sci	Soc Sci elective		HUM Elec	HUM elective				

A1, SLO#2, ISLO: Teamwork. Course Matrix

SLO #4: The student will employ professional judgment, and discretion including ethics

	Sophomore			Junior			Senior		
Fall	BIO 220	Cardio Physio		BUS 317	Health Care		VAS 420	Extern	E
	BIO 346	Patho Physio		SPE 321	Sm Group				
	PHY 217	Phy of MI		VAS 337	Survey Echo				
	VAS 214	Vas Anatomy		VAS 365	Abd Vas	E			
				Soc Sci	Soc Sci elective				
Win	BIO 347	Patho Phys II		BUS 316	TQ in Health		VAS 420	Extern	E
	VAS 210	Vas Prin Inst I		CHE 210	Clin Pharm				
	VAS 245	Peri Ven Disease	I E	VAS 366	Circ Probs	E			
	VAS 335	Radio Vas Anat		VAS 375	Abd Sono				
				HUM Elec	Hum elective				
Spr	VAS 211	Vas Prin Inst II		VAS 367	Cerebro Disease	E	VAS 420	Extern	E
	VAS 225	Patient Mgmt	I E	VAS 385	Vas Lab Mgmt				
	VAS 246	Peri Art Disease	E	VAS 388	Extern Orient				
	WRI 227	Tech Report		COM Elec	COM elective				
	Soc Sci	Soc Sci elective		HUM Elec	HUM elective				

A2, SLO#4, ISLO: Professionalism & Ethics. Course Matrix

SLO #9: The student will demonstrate an understanding of diverse cultural and humanistic traditions in the global society.

	Sophomore			Junior			Senior		
Fall	BIO 220	Cardio Physio		BUS 317	Health Care		VAS 420	Extern	R
	BIO 346	Patho Physio		SPE 321	Sm Group				
	PHY 217	Phy of MI		VAS 337	Survey Echo				
	VAS 214	Vas Anatomy		VAS 365	Abd Vas				
				Soc Sci	Soc Sci elective				
Win	BIO 347	Patho Phys II		BUS 316	TQ in Health		VAS 420	Extern	R
	VAS 210	Vas Prin Inst I		CHE 210	Clin Pharm				
	VAS 245	Peri Ven Disease		VAS 366	Circ Probs	E			
	VAS 335	Radio Vas Anat		VAS 375	Abd Sono				
				HUM Elec	Hum elective				
Spr	VAS 211	Vas Prin Inst II		VAS 367	Cerebro Disease		VAS 420	Extern	R
	VAS 225	Patient Mgmt	I E	VAS 385	Vas Lab Mgmt				
	VAS 246	Peri Art Disease		VAS 388	Extern Orient				
	WRI 227	Tech Report		COM Elec	COM elective				
	Soc Sci	Soc Sci elective		HUM Elec	HUM elective				

A3, SLO#9, ISLO: Cultural Awareness. Course Matrix