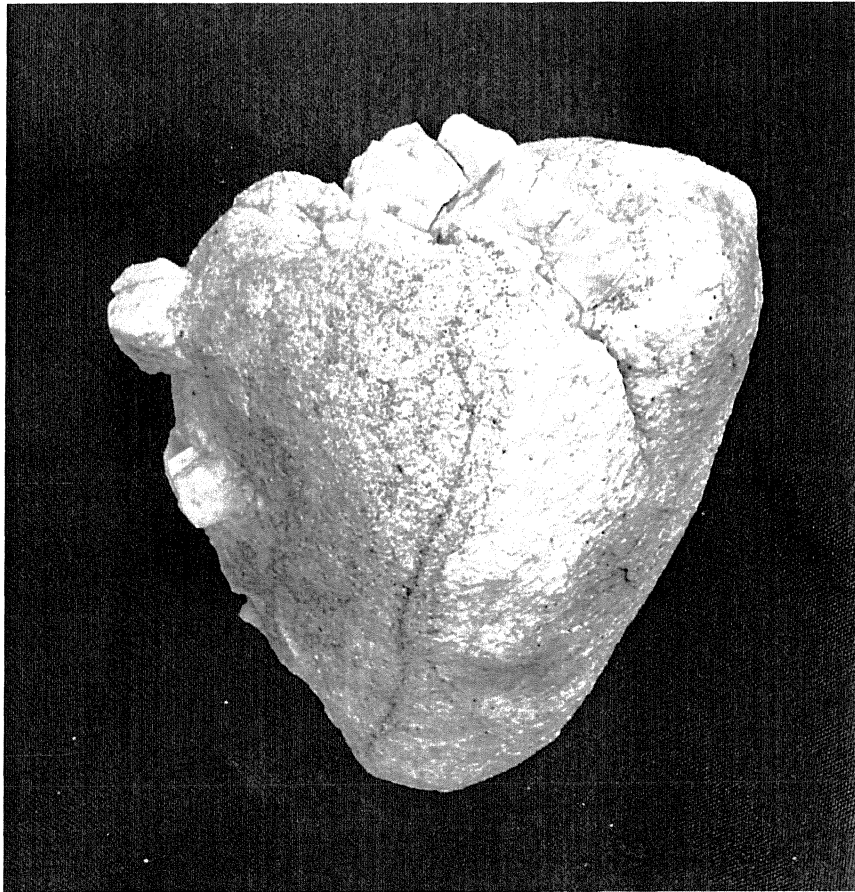


Grossmont College  
Academic Program Review


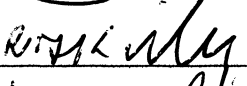
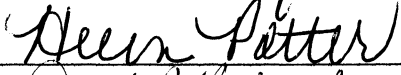

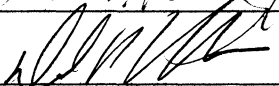


Cardiovascular Technology Program  
Spring 2009



**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE**

**FULL TIME FACULTY MEMBERS**

FACULTY	SIGNATURE	DATE
Andy Biondo		2/10/09
Rick Kirby		2/10/09
Helen Potter		2/17/09
Don Ridgway		2/17/09
Dan Sullivan		2/17/09

**ADJUNCT FACULTY MEMBERS**

<b>Michael Botha, Scripps Chula Vista</b>	<b>Ona O'Keefe, Sharp Reese-Stealy Clinic</b>
<b>Erik Echegrary, Scripps Green Hospital</b>	<b>James Phan – Scripps Mercy Hospital</b>
<b>Edgar Garcia, Kaiser Permanente</b>	<b>Raymond Schwend, Scripps Green Hospital</b>
<b>Bridget Heaton, Alvarado Medical Center</b>	

***On the Cover: Nature's example of a heart of stone. This remarkable rock was discovered in a barren wash in the Anza Borrego desert by JoAnn Faulise, long-time administrative assistant to the CVT Program who passed in late 2008. The similarity of the rock to actual cardiac anatomy is uncanny. The heart rock is located in the CVT Office and serves as a reminder of Jo and her outstanding service to our students, the CVT Program and Grossmont College.***

***Cover design and photo by Don Ridgway.***

**Cardiovascular Technology  
Academic Program Review  
Table of Contents**

<b>Section I – Overview</b> .....	<b>1</b>
Concise History.....	1
Department Goals.....	2
Past Program Review.....	3
Advisory Committee Recommendations.....	4
<b>Section 2 – Curriculum, Academic Standards, and Support Services</b>	
Course Outline Review.....	5
Academic Standards.....	6
Grade Distribution & Retention.....	7
Extended Learning Outcomes.....	8
Community Involvement & Outreach.....	9
Campus Resources.....	10
<b>Section 3 – Student access &amp; Success</b>	
Statistical Data Analysis.....	13
<b>Section 4 – Development of Human Resources</b> .....	<b>16</b>
<b>Section 5 – Scheduling &amp; Room Utilization</b> .....	<b>19</b>
<b>Section 6 – Fiscal Profile</b> .....	<b>22</b>
<b>Section 7 – Summary</b> .....	<b>23</b>
<b>Section 8 – Conclusions &amp; Recommendations</b> .....	<b>25</b>



**Cardiovascular Technology  
Academic Program Review  
Table of Appendices**

<b>Appendix</b>	<b>Topic</b>
1	Educational Master Plan
2	Previous Program Review Summary
3	Catalog Descriptions
4	Course Status
5	Grade Distribution Summary
6	Results of Student Survey
7	Statistical Data: Outcomes Profile
8	Efficiency Report
9	Degrees & Certificates Awarded
10	Sabbaticals, Conference, Workshop & Staff Development Activities
11	Department Equivalencies
12	Subject WSCH Analysis Report
13	Fiscal Year FTES Analysis Report
14	Fiscal Data: Outcomes Profile
15	CVT Student Information Booklet
16	Program Brochure

# **CARDIOVASCULAR TECHNOLOGY ACADEMIC PROGRAM REVIEW**

**Spring 2009**

## **SECTION 1 – OVERVIEW**

**Department/program history, recent trends, response to last program review recommendations.**

### **Concise History**

- 1.1 Introduce the self-study with a brief department/program history. Describe any unique characteristics, concerns or trends affecting the program and any significant changes or needs anticipated in the next three years. These may include items such as increases or decrease in numbers of full-time and adjunct faculty, sections offered, and growth or decline of the department/program. Remember that this is a broad general assessment versus the more detailed responses and recommendations covered in the following emphasis areas (1 page maximum.)**

The Cardiovascular Technology Program was founded in 1972 by Dr. Willard Dellegar. The initial curriculum was composed of a series of courses leading to an Associate Degree in Biomedical Technology which emphasized the repair of specialized medical electronic instruments. While graduates were obtaining employment in that field, feedback from employers and potential employers indicated a greater need for Allied Health Professionals who could assist physicians in the performance of sophisticated medical diagnostic and interventional tests such as cardiac catheterization and angiographic procedures, cardiac ultrasound studies and vascular duplex imaging. Dr. Dellegar enlisted the assistance of local technologists and the Naval Medical Center to revise the program, and over a two-year period the faculty was expanded to include staff from the clinical arena, and the curriculum was revised from a "Biomedical" orientation to a clinically-based, Cardiovascular Technology program.

The current curriculum is composed of a one-year plus one summer session, 29-unit Core Curriculum in mathematics, physics, advanced cardiovascular anatomy, physiology and pathophysiology, medical electronics and instrumentation, cardiovascular pharmacology, and clinical practicum. Prerequisite courses in Chemistry (4 Units) and Human Anatomy and Physiology (8 Units) are required for admission. Following completion of the Core Curriculum, students select one of three specialties in the scope of practice; Invasive Cardiovascular Technology, Noninvasive Cardiovascular Technology, or Vascular Technology. The first year of the program is composed of campus-based lectures and labs. The second year specialty training is composed of on-campus lectures and labs, and clinical experience in local hospitals.

Accreditation for Cardiovascular Technology education was established by the American Medical Association in 1986, and the Grossmont program was the first in the nation to be accredited. Graduates of the program can be found across the country, the Middle East, England, New Zealand and Australia. Most are hired prior to graduation. Hospitals recruit graduates offering salaries in the \$50,000 range, with excellent benefit packages, and sometimes with moving expenses and/or a signing bonus. Our records indicate 100% employment for graduates who want to work.

There is also a need to conduct a needs survey and explore the feasibility of incorporating an additional track into the CVT Program when resources are available. Instruction would be designed to provide certification in the area of Electrophysiology studies, another very specialized component of the scope of practice. Otherwise, the program is stable and no major changes are anticipated in the structure of the curriculum in the near future.

## **Department Program Goals**

### **1.2 Appendix 1 contains the most recent Educational Master Plan for the department/program. Make comments on the following:**

- **Which goals have been met?** Goal 1 (Recruit faculty) and Goal 2 (provide tutoring) have been met. Goals 3 (SLO's), Goal 4 (Assist ROP with Anesthesia Monitoring courses) and Goal 5 (Curriculum Review) have been addressed and all are on-going.
- **What actions have been taken in achieving these goals and objectives?** Two new full time faculty members have been recruited and hired and basic and advanced tutors have been recruited, trained and hired (Goals 1&2). Student learning outcomes have been identified for all courses in fall semester, first and second year levels, and methods of assessment have been standardized and will be published in student syllabi beginning in Fall 2009 (Goal 3). A series of 299 courses have been developed, adjunct faculty hired, and the first group of students entered the workplace as Anesthesia Monitoring Technicians at the end of summer 2007 (Goal 4). Curriculum review is an ongoing process for the department based on changes in the scope of practice and recommendations from the Joint Review Committee on CVT Education (JRC-CVT) and the program Advisory Committee (Goal 5).
- **What obstacles have been encountered?** The college policy of filling classes with adjunct instructors for one year prior to authorization to replace full time faculty was very disruptive to our curriculum and the stability of the program. Adjunct instructors are difficult to recruit and hire for the wages paid by our district. We were without a stable faculty for approximately 3 years until the Fall 08 semester.
- Full time instructors are even more difficult to recruit and hire for the wages paid by the district. Nation-wide searches have been conducted with little success, and when 2

qualified candidates were identified and offered positions, both refused the offer when they were informed of the salary to be paid. This situation has been somewhat temporarily alleviated by obtaining a grant from the Grossmont Healthcare District which was used to recruit and retain qualified instructors. The current coordinator retired at the end of Spring 2006 but has returned on a part-time basis until a new coordinator can be identified and trained to assume that responsibility.

- **How have these goals changed and why?** They have not changed.

**1.2 Appendix 2 contains the most recent Program Review Committee recommendations for the department/program. Describe changes that have been made in the department/program in response to recommendations from the last review.**

**Here are the four recommendations and the response to each:**

**Recommendation #1 - Continue to work to develop a viable GE package that better meets the needs of your students.** *Response:* A GE package modeled on the Nursing and Respiratory Therapy programs was developed and approved by the Curriculum Committee in September, 2002.

**Recommendation #2 – With other health sciences, utilize campus and district resources for marketing and public awareness of the program in the community.** *Response:* The program is currently impacted and there is a waiting list of approximately two years. It appears that the community is aware of the existence of the program and the potential benefits associated with a career in Cardiovascular Technology.

**Recommendation #3 – Advance the planning process for the new and remodeled health science building.** *Response:* The department has been involved in all stages of the process for planning the new building. Both the coordinator, Rick Kirby and one full time faculty member, Don Ridgway, currently serve on that taskforce.

**Recommendation #4 – Seek general fund support for the tutoring program.** *Response:* The tutoring budget in the general fund and the Perkins VETA fund were both increased shortly after our last program review and are considered adequate for current enrollments.

**Advisory committee Recommendation**

**Some disciplines such as ESL and vocational program are required to have advisory committees. Answer this question if this is application to your department/program.**

The CVT Advisory Committee is composed of 2 physician medical directors, 6 physician specialists in cardiovascular medicine, 7 senior technologist/department managers from local hospitals, the CVT faculty, the Division Dean, and the Presidents of both the 1<sup>st</sup> and 2<sup>nd</sup> year classes. The committee

meets annually in May to receive a report on the status of the program, review the program syllabus and recommend revisions to the curriculum.

**1.4 If appropriate, summarize the principal recommendations of the program advisory committee since the last program review. Describe how the department/program has responded to these recommendations. Include the date of the last meeting and frequency of meetings. List organizations represented.**

Recommendations from the committee have centered on maintaining the curriculum to the scope of practice and adequate staffing levels. Specific recommendations have been:

May 2007 – The curriculum was reviewed and found to be appropriate to the scope of practice. There was one recommendation from Drs. Otis and Ceretto that instruction on the evaluation of intimal-medial thickening be added to the Vascular Track curriculum. This topic was added to the course in Spring 2008.

May 2006 – The curriculum was reviewed and found to be appropriate to the scope of practice. There was discussion as to possible implications of a combination of diagnostic cardiology labs and interventional radiology sharing the scope of practice. There were no specific recommendations from the committees as to possible impact on the CVT curriculum or competencies.

May 2005 – The committee approved a proposal from the faculty to implement a pilot project to require students in the Invasive Track to sit for the national registry exam during finals week of their graduating semester. The project was implemented and carried out for 2 years and then changed from a “requirement” to a recommendation. This action was due to inconsistencies in the faculty teaching the courses.

May 2004 – The committee approved the addition of the requirement that students enrolled in the Invasive Track be required to complete Advanced Cardiac Life Support (ACLS) as part of their course work. There was also discussion as to the implications of the pending retirement of Jerome Passman and the challenges to be faced associated with the hiring practices currently in force at the college/district.

May 2003 – There was discussion as to the allocation of specific amounts of time devoted to medical electronics and instrumentation, noninvasive techniques and increased emphasis on abdominal Doppler techniques. There were no specific recommendations from the committee.

**Local representation includes:**

William J. Ceretto, M.D. – Cardiologist (Co-Medical Director)

Shirley M. Otis, M.D. – Department Chair and Senior Consultant, Neurology Division and Director, Vascular Diagnostics Laboratory, Scripps Green Hospital (Co-Medical Director)

Howard Dittrich, M.D. – Chief Medical Officer, Sequel Pharmaceuticals and Clinical Professor of Medicine, UCSD Medical Center

Mary Kalafut, M.D. – Neurologist, Scripps Green Hospital  
Vincent Guzzetta, M.D. Vascular Surgeon  
James Mathewson, M.D., Pediatric Cardiologist, Children’s Hospital  
Michael Botha, RCIS, Manager, Cardiac Catheterization Laboratory, Scripps Chula Vista  
Dan Miller, RCIS, Manager, Cardiology Services, Scripps Mercy Hospital  
Colin Ramsey, RCIS, Manager, Cardiology Services, Sharp Grossmont Hospital  
Marylou Upton, RCS, Manager, San Diego Cardiac Center  
James Phan, RCIS, RVT, RCS, MA, Management Team, Scripps Mercy Hospital  
Raymond Schwend, RVT, Senior Technologist, Vascular Laboratory, Scripps Green Hospital

## **SECTION 2 – CURRICULUM, ACADEMIC STANDARDS, AND SUPPORT SERVICES**

**In Appendix 3, Catalog Descriptions, insert copies of your catalog descriptions from the most recent college catalog (see “Course of Instruction” section). If your program has an Associate Degree program, include the relevant pages for the catalog (see “Associate Degree” section).**

Complete – Please see Appendix 3

**To complete Appendix 4 Course Status, review your course outlines and complete the form in the appendix to reflect currency of the courses, offerings, and alignment status. The table is complete. Please see Appendix 4.**

**2.1 Review all course outlines and comment on where your department/program is in the process of maintaining currency. Verify that the course outline reflect the writing, reading, and problem-solving skills, quantitative reasoning, and critical thinking across the department/program’s curriculum.**

- Course Currency – CVTE 107, 120, 201, and 211 are due for review and updating. CVTE 201 and 211 have been reviewed in Fall 2007 and submitted to the Instructional Operations Office for action by the Curriculum Committee. The other courses will be submitted for review in the next academic year.
- All courses have been approved by the curriculum committee and reflect the required writing, reading and problem-solving skills, quantitative reasoning, and critical thinking across the CVT curriculum.

**2.2 Describe how your department makes decisions related to the following:**

**a) Identification of student learning outcomes –** Primary direction for student learning outcomes is provided by the “Guidelines and Essentials of an Accredited CVT Program” published by the Joint Review Committee on CVT Education. Additional guidance is provided by the CVT Advisory Committee and our clinical affiliates. A collaborative process among all full time members of the faculty is used to refine the input from these sources and then translate them into the curriculum. Curriculum issues are addressed in part via a biweekly CVT faculty

meeting and department meetings which include adjunct faculty during Professional Development Week each semester.

**b) Methods to demonstrate achievement of these learning outcomes.**

Assessment of learning outcomes is evaluated via a combination of written examinations, oral examinations, writing assignments, clinical performance tests, graduate success rates on national registry exams, and graduate placement.

**How do you use this information for course and program improvement?**

The information is used to identify areas of the curriculum in the scope of practice that require review and revision as appropriate.

**2.3 Explain how the department/program maintains academic standards, integrity and consistency to assure that current curriculum adequately meets students' needs (e.g., general education, prerequisites, job-specific training, transfer). Explain how the department/program ensures that all instructors teach to the official course outline.**

a. Academic Standards - The courses in the CVT major contain highly technical content dealing with diagnostic and interventional cardiovascular medicine. Graduates of the program work with critically ill patients and there is little room for error in their care. The program requires all courses with the exception of two, to be completed with a minimum of 75% average. The two exceptions are clinical practicum courses and require an 85% average for a passing grade.

b. Academic Integrity – All CVT syllabi distributed to the students on the first day of class contain the following statement:

***Academic Integrity.*** *The Cardiovascular Technology profession demands the highest moral and clinical standards. Cheating will not be tolerated in the Program just as it will not be tolerated in clinical practice. The official Grossmont College policy on cheating is detailed in the Student Code of Conduct, which is available in the office of the Director of Student Affairs. In accordance with this policy, the CVT Department defines cheating as any one of the following:*

- *Talking to another student during an exam*
- *Copying (or attempting to copy) answers from another student's paper during exams or Quizzes*
- *Plagiarism in connection with any academic process including submitting tracings, measurements/calculations, or reports which were prepared by anyone other than yourself*
- *Soliciting or assisting another student to any act which would violate this policy*
- *Duplicating any copyrighted material for any reason*

*Instructors have the authority to suspend any student suspected of cheating for the class meeting in which the incident occurs and one additional class meeting. Following a review of the incident, the college policy on student conduct prevails and the student may be denied future access to the Program. Refer to the Student Code of Conduct for additional information on this policy.*

This information is also published in the *CVT Student Information Booklet*. The policy is strictly enforced. In the past 2 years, 2 students have been expelled from the program and the college for committing plagiarism.

**Consistency** – The program began in 1972 and over the years the curriculum has been refined to insure the appropriateness of the prerequisite courses in preparing students to work at the required level of rigor they encounter in the program. The General Education requirement has been evaluated and modified as appropriate as indicated previously.

The curriculum is totally integrated, and theoretical concepts are often presented as part of one class and then clinical application accomplished in a different class (or lab). If an instructor does not teach to the official course outline, it quickly becomes evident to other members of the staff and corrections are made as appropriate. The issue is documented in the instructor's evaluation and if an adjunct instructor, they may not be assigned classes in the future OR in the case of a full time, non-tenured faculty member, this could be grounds to cease the tenure process and refuse to rehire. In either case, college policy is strictly adhered to. The CVT faculty historically has worked generally well to ensure continuity of the curriculum.

#### **2.4 Using Appendix 5, Grade Distribution Summary Report, comment on retention and grading variability figures. Discuss any specific courses that have unusual retention patterns or grading variances.**

**Retention** – Retention has been consistent in the program since the last program review. First year classes average 10-12% with a slight rise to 13% in Spring 2007. Second year class attrition averages 2-3%.

**Grade Distribution** – Analysis of the data provided indicates little change in grading patterns over the past 5 years. It should be noted that students accepted into the program average 27 years in age, have completed 12 units of course work in the sciences as prerequisites and are highly motivated to do well. The program does not issue "D" grades and there are few "C's". CVTE 205 and CVTE 215 are clinical practicum courses based in local hospitals and are essentially pass/fail. Grades are derived from student clinical log sheets and assigned clinical case reports.



**2.5 Describe strategies employed to ensure consistency in grading in multiple section courses (e.g., mastery level assessment, writing rubrics, departmental determination of core areas which must be taught).**

Multiple section courses in the department are clinical lab courses and use multiple measures to assess student competency. Paper and pencil tests, reading assignments, a comprehensive final examination, graded lab exercises, and clinical performance tests are examples. Course content is guided by the *Guidelines and Essentials* published by the accrediting agency (The JRC-CVT), the CVT Advisory Committee, and our clinical affiliates. Standardized grading sheets have been developed by the faculty. In most cases the sheets are distributed to the students two weeks or more before the performance exams are conducted so that they are informed of exactly what the instructor will be grading and the points available for each section. Grading variance between instructors has not been an issue to date. Since the full-time CVT faculty is fairly small (four instructors), integration and consistency have been relatively easy to maintain.

**2.6 Describe how your department/program encourages students to extend learning outside of the formal classroom.**

- a. A 30-station computer center with state-of-the-art machines connected to the Internet is available for students to use in study, research and technical writing assignments.
- b. Attendance at local and regional seminars and conferences on cardiovascular medicine.
- c. Assignment to clinical experience in local hospitals which provides availability to a patient population with cardiovascular disease and millions of dollars in state-of-the-art medical diagnostic instrumentation not available on campus.
- d. Open lab times with trained tutors available to assist in the acquisition and refinement of clinical skills in diagnostic testing.
- e. An array of technical journals available in the LRC.

**2.7 Describe and give rationale for any new courses or programs you are developing or have developed since the last program review. How have current issues (environmental, societal, ethical, political, technological) been reflected in your curriculum.**

The program has participated in the development of courses designed to teach the principles of Anesthesia Technology. The courses were developed in response to a community request from area hospitals; they were unable to recruit and hire trained Anesthesia Technicians to work in their operating rooms. The program is being developed in conjunction with the ROP Office and the CVT coordinator assisted in the development of the initial 299 courses, interviewing and hiring faculty, and instructor evaluation. Ten courses have been developed, four instructors have been recruited and hired and the official course outlines were scheduled to go before the Curriculum Committee in Fall 08. These courses do not contain environmental, societal, ethical or political subject matter but are highly technical in scope.

**2.8 In Appendix 4, Course Status, list the courses in the department/program that are duplicated at Cuyamaca College and identify their alignment status. Comment on courses which have not been aligned and describe the plans for alignment.**

None. There are no CVT courses taught at Cuyamaca College at present. Grossmont has the only CVTE Program in the San Diego area and is one of only two accredited programs in the State of California.

**Innovation/Special Projects/Community Involvement**

**2.9 Describe instructional innovations and/or special projects undertaken by the department/program or individual faculty members, including the use of technology.**

Don Ridgway has authored a nationally-acclaimed textbook on Vascular Technology. *Introduction to Vascular Scanning*, from Davies Publications, is now in revision for the 4<sup>th</sup> edition. His textbook on vascular anatomy and physiology is due out later in the spring of 2009. Don has also published *Vascular Technology Review*, a collection of approximately 600 questions which is used as a tool for preparation for the national vascular registry examination (also available in CD-ROM format to simulate the exam environment). He is also the Associate Editor of *Vascular Physics Review*, a similar review book for the ARDMS physics exam, and has another textbook on vascular anatomy and physiology nearing completion.

There are two online courses in the department. Both are structured to provide a comprehensive review prior to taking national registry exams.

Another innovation/special project undertaken by the department is the Anesthesia Technician program previously described.

**2.10 With the interest and needs of the community in mind, describe any outreach or community activities initiated by the department/program.**

The program coordinator holds a one-hour weekly orientation meeting each Tuesday at 9:00 AM. The meeting is open to members of the public and/or students in other courses at the college and provides a detailed overview of the Cardiovascular Technology profession and a tour of the CVT Laboratory.

The program participates in the Career Fair each fall semester and the Health Fair each spring semester.

Don Ridgway and the students enrolled in the Vascular Track of the program conduct a cardiovascular screening test for members of Club 65, a senior services group at Sharp Grossmont Hospital. Seventy-one patients were screened for evidence of lower-extremity disease in November 2007. Three patients were identified to have evidence of disease and

were referred to their physicians for early intervention. Screenings for carotid artery disease and abdominal aortic aneurysm are held at Grossmont Hospital's cardiology department in the spring.

**2.11 Provide specific examples of departmental or individual efforts aimed at encouraging students to become actively engaged in the learning process.**

Students are required to work in a group of their peers (typically 4 students) as they acquire and refine their diagnostic skills such as blood pressure measurement, segmental pressure determination, electrical circuit analysis, echocardiography, aseptic technique and duplex ultrasound studies. The students are fully engaged in the instructional process and support/oversight is provided by a combination of CVT faculty and second year students.

**2.12 Explain the department/program's relationship to others on campus (e.g., fulfill prerequisites for other general education programs, cross-listing, interdisciplinary course offerings, learning communities.)**

The program relies on other departments on campus to provide prerequisite and general education courses. Special reliance is placed on the Chemistry and Biology departments and cooperation has been excellent in the past. There are no cross-listed interdisciplinary course offerings in the department.

### **Campus Resources**

**2.13 Indicate what the department/program has done to formalize links with the following college support services:**

- **Learning Assistance Centers (Biology Learning Center, English Writing and Reading Centers, Math Study Center, Tutoring Center)** The only referral used routinely from CVT is the English Writing and Reading center when language deficiencies in our students are detected.
- **Technology Mall** – The department occasionally reserves a room to conduct online exams or projects.
- **Instructional Media (upstairs in the Library Technology Resource Center)** The department maintains an extensive collection of audiovisual material in Room 329A so little interaction occurs with IM Services.
- **Others** – n/a

**2.14 Evaluate and provide a summary of the current status of library resources related to the department/program. Use the subject-specialist librarian assigned to your department/program to assist in the evaluation. Consider books, periodicals and online resources.**

The following journals are available in the LRC and are considered adequate to the scope of practice and current enrollments.

<b>PUBLICATION</b>	<b>AVAILABILITY</b>
Circulation	1990 - Date
Index Medicus	1976 - Date
Journal of CV Surgery	1991 - Date
Journal of Invasive Cardiology	1989 - Date
Journal of the American Society of Echocardiography	1989 - Date
Journal of Ultrasound in Medicine	1990 - Date
Journal of Vascular Technology	1989 - Date

There is also a wide array of textbooks on Cardiovascular Disease. It has been noted that use of the materials in the LRC by our students has decreased in recent years since the majority rely heavily on the Internet for learning outside the classroom.

**2.15 Describe the working relationship between the department/program and the Counseling Department in terms of exchanging specific and current information about your department/program that counselors can use to help students develop education plans and make career decisions.**

The program coordinator attends the Counseling Center Staff meeting annually in March and in some cases during Spring and Fall semesters in order to provide an overview of the program, demand for graduates and request assistance in identifying students interested in technical careers in Allied Health. The department also reviews and updates the Planning Sheet on an annual basis which is used by the counseling staff when advising students as to courses required to enter and complete the program and Associate Degree.

**2.16 Comment on the results of the student survey, *Appendix 6*, regarding campus resources.**

**Assessment & Testing Center** – 81.6% of CVT students report that they rarely or never use this service. Of those who do, it is likely those who take assessment tests in Mathematics in order to enroll in the Chemistry prerequisite course for CVT or English to determine which course to take for the AS Degree or certificate.

**Career Center** – 98.5% of CVT students report that they rarely or never use this service. It should be noted that students entering the CVT Program have already selected the profession as a career path and completed 12 units of prerequisite course work. The program maintains an extensive listing of jobs available upon graduation. The Career Center has been supportive of the program in providing an outstanding workshop on resume preparation which was presented to the Classes of 2006, 2007 and 2008 by Nancy Davis.

**Counseling Office** – 97.1% of CVT students report that they rarely or never use this service. Students are encouraged early in the first year of the program to schedule an appointment with counseling in order to determine eligibility for their Certificate of Achievement or the Associate Degree.

**English Writing Center** – 95.4% of CVT students report that they rarely or never use this service.

**English Reading Center** – 98.4% of CVT students report that they rarely or never use this service.

**Health Services** – 96.0% of CVT students report that they rarely or never use this service. However, many of our students have used this service in the past to obtain physical examinations and immunizations prior to entering the program or being assigned to clinical practicum in local hospitals. Additionally, the program encourages second-year students to obtain flu shots, which is desirable in health-care workers. (Flu shots are likely to become mandatory for health sciences students in clinical sites in the near future.)

**LRC: Computer Lab (SETL)** – 52.1 % of our students report that they rarely or never use this service. The remaining students fall into the other two categories; often, 2-5 times/week (19.7%) or rarely (28.2%). It should be noted that CVT students have access to the Health Professions Computer Center, Room 352A which is located in the building 35 adjacent to the CVT Lab and provides access to the Internet in addition to a wide array of online learning resources.

**LRC: Instructional Media** – 16.9% of CVT students report that they sometimes use the video carrels in the LRC. They are likely used for study sessions in preparation for exams.

**LRC: Main Library** – 41.4% of CVT students report using the main library. As noted earlier the Internet has become the primary tool for research used by our students.

**Math Study Center** – 96.9% of CVT students report that they rarely or never use this service. Tutoring in mathematics and physics is provided by the CVT faculty as required.

**Student Affairs Office** – 93.6% of CVT students report that they rarely or never use this service.

**Tutoring Center** – 95.4% of CVT students report that they rarely or never use this service. Tutoring in CVT topics is not available in the Tutoring Center so this service is provided by a combination of 2<sup>nd</sup> year students and the CVT faculty.

**2.17 List courses that have been formally articulated with the high schools. Describe any articulation and/or collaboration efforts with K-12 schools.**

None of the CVT courses have been formally articulated with area high schools. A brochure is available which describes a pathway for a high school student to follow for entry into the CVT profession. It outlines the prerequisite courses, suggests high school courses for completion in the sciences and then gives an overview of the major courses. The brochure is distributed at career fairs and when high school students visit the campus and the CVT laboratories. A copy of the brochure is included at the end of this booklet.

**2.18 After reviewing ASSIST.org and the Grossmont College articulation website, please identify if there are any areas of concern or additional needs your department has about articulation with four-year institutions. Please describe how the department/program ensures that articulations with key four-year universities are current.**

The program is not officially articulated to any four-year institutions. The program provides competency in entry-level positions as Cardiovascular Technologists. Graduates who continue their education typically pursue degrees in related areas such as advanced physiology, computer science, education, administration, allied health care management, and research methodology. There is a program at National University that accepts our graduates at an advanced level should the students decide to pursue a degree in Medical Administration/Management.

### **SECTION 3 – STUDENT ACCESS AND SUCCESS**

**3.1 In addition to the innovations listed in 2.11, describe specific ways the department/program has adjusted or developed curriculum to foster student success (e.g., addition of pre-collegiate introduction courses, bridge courses, variable unit courses, on-line courses, honors courses, web enhanced learning).**

None other than those listed in detail in 2.11.

**3.2 Analyze Appendix 7, Statistical Data: Outcomes Profile, and comment on strategies utilized to address the needs of the various cohort groups. Provide specific strategies that have been used to meet the different needs of your students (e.g. re-entry, academically under prepared, working, disabled, limited English.)**

Students who enter the program have completed 4 Units of Chemistry and 8 Units of Human Anatomy and Physiology. The Chemistry course has a math prerequisite. The students are generally mature, (average age =27 years) highly motivated and accustomed to working at the level of rigor required in the CVT Curriculum. Some have Bachelor's and/or Master's Degrees and most classes have 1 – 2 foreign-trained physicians.

Students comment that the most helpful strategy to promote success is the provision of 2<sup>nd</sup> year students to serve as tutors to 1<sup>st</sup> year and especially in the labs where they acquire and refine their skills in performing specialized diagnostic medical tests.

In some cases students who struggle with the English language have been referred to the ESL department for assistance.

**3.3 If state of federal licensing/registration examinations govern the program, please comment on student success.**

Graduates sit for national registry exams administered by Cardiovascular Credentialing International, (CCI) for Invasive, Noninvasive and Vascular Technology, or the American Registry of Diagnostic Medical Sonography (ARDMS) for Noninvasive and Vascular Technology only. Graduates who pass the national registry typically have greater access to jobs and begin work at a higher level on the salary schedule.

Passing the national registry exam is not a requirement to enter clinical practice, so the numbers of students taking the exam each year varies. The exam is costly and rigorous, and some excellent students opt not to take the exam despite advice and encouragement from the faculty to do so. There is currently a national movement to accredit clinical labs (the same as educational programs) to ensure quality of practice; this will likely lead to mandatory registry or licensure of the profession in the future. For years prior to 2006, CCI did not report the national average for the Invasive registry so that data is not available.

The table below demonstrates graduate performance over the past three years and shows that Grossmont graduates generally exceed the national average pass rate.

YEAR	SPECIALTY	GRADUATES	TOOK EXAM	PASSED EXAM	GROSSMONT AVERAGE	NATIONAL AVERAGE
2006	Invasive CVT	18	18	12	66.7%	69.2%
2006	Adult Echo	16	10	10	100.0%	72.8%
2006	CV Physics	16	12	11	92.6%	56.0%
2006	Vascular Physics	10	1	0	0	60.3%
2006	Vascular Technology	10	1	0	0	56.7%
2005	Invasive CVT	17	17	8	47.1%	Not reported
2005	Adult Echo	16	11	10	90.9%	55.7%
2005	CV Physics	16	13	8	61.5%	53.5%
2005	Vascular Physics	12	12	10	83.3%	64.4%

2005	Vascular Technology	12	5	4	80.0%	57.0%
2004	Invasive CVT	16	1	0	0	Unknown
2004	Adult Echo	18	6	6	100%	61.2%
2004	CV Physics	18	8	7	87.5 %	55.1%
2004	Vascular Physics	10	8	2	25.0%	56.5%
2004	Vascular Technology	10	7	7	100%	86.2%

**3.4 Discuss strategies and/or activities that have been, can be, or will be used to promote/publicize the courses/department/program. Include activities your faculty have implemented to provide closer connections to primary, secondary and post secondary schools. Consider campus/district resources that have been useful. Using the Student Survey, comment on how students learned of this program.**

The department uses a color brochure, an entry in the *Class Schedule* each semester, and weekly orientation meetings to publicize and promote the program. The orientation meetings are held in the CVT Office and include a tour of the lab and overview of some of the equipment used in diagnostic cardiovascular technology. Analysis of the Student Survey reveals the following as to how students learn about the availability of the program:

N = 92 Students surveyed

Note: *Since students are able to select more than one option the total exceeds 100%.*

Friend & Family member	58.3%
Grossmont Webpage	30.6%
Work referral	13.9%
Grossmont Catalog	12.5%
Grossmont Counselor	9.7%
Grossmont Instructor	6.9%
Cuyamaca College Presentation	2.8%
Public Media	2.8%



**3.5 Referring to *Appendix 7, Statistical Data, Outcomes Profiles, Appendix 8, Efficiency Report, and Appendix 5, Grade Distribution Summary Report, comment on emerging trends of course completion, success, retention, and enrollments.***

**Course Completion** – Course completion rates average 94.1 percent and have been stable over the reporting period.

**Success** – Overall success rate for CVT students reported for gender, age and ethnicity is 91.7% and has been stable over the period reported.

**Retention** – The retention rate for CVT students when reported for gender, age and ethnicity is 94.1% and has been stable over the period reported.

**Enrollments** – Enrollments have remained stable since the program accepts the same number of students each year (54 Students) based on available lab stations, faculty, equipment and clinical sites available in San Diego County.

**3.6 Referring to *Appendix 9 if the department/program offers a major or certificate in the college catalog, comment on the trends regarding number of students who earn these degrees and/or certificates.***

The number of degrees and certificates awarded each year has remained relatively consistent over the past 5 years. Degrees awarded averages 27 and certificates average 39. It should be noted that students who satisfy the requirements for the degree automatically are qualified to receive the certificate and most apply for both.

## **SECTION 4 – DEVELOPMENT OF HUMAN RESOURCES**

**In Appendix 10, complete Conference, Workshops, Staff Development and Sabbaticals forms.**

**4.1 Describe how participation in activities listed in *Appendix 10* have resulted in improvement in curriculum and instruction.**

Attendance at local, regional and national workshops, conferences and symposia is critical to maintaining the curriculum current to the scope of practice. These meetings feature national and international speakers who present the findings of their research; clinical cases reports and in some cases live demonstrations of new methods used in the diagnosis and treatment of cardiovascular disease. The information is then translated into the curriculum as appropriate.

#### **4.2 Forecast your staff development needs both within and outside of the institution.**

Within the Institution – Continued support as student learning outcomes are developed and incorporated into the curriculum. Campus support for instructors to incorporate online/hybrid classes into the CVT Curriculum.

Outside the Institution – Continued support to fund registration, travel and accommodations for at least two instructors to attend national meetings each year on a rotating basis.

#### **4.3 Describe how the members of the department/program are helping to shape the direction of the college (e.g., writing grants, serving on college/district committees, task forces, Academic representation, etc.).**

Don Ridgway serves on the Health Professions Building Taskforce and the Academic Senate. Rick Kirby serves on as a member of the Academic Senate, Council of Chairs and the Division Council of Career/Technical Education and Workforce Development. He is also a member of the building taskforce and the Grossmont Health Care District building taskforce.

The other 3 full time, CVT faculty members are on tenure track and are not encouraged to volunteer for committees until the 3<sup>rd</sup> year of the process. They are instead encouraged to concentrate on teaching strategies, classroom management, student clinical placement, and student assessment methods.

#### **4.4 Describe how the members of the department/program contribute to the community beyond the college, locally, statewide, and nationally.**

Don Ridgway – Author of 2 textbooks which are used nationally, associate editor and contributor to a third book and a 4<sup>th</sup> book to be published in Spring 2008. Don also provides leadership for his students in the Vascular Track of the program to conduct annual vascular screening exams for members of “CLUB 65,” a senior citizen’s group associated with Sharp Grossmont Hospital.

#### **4.5 Describe how decisions are made in your department/program.**

Through a collegial process which typically begins with discussion at a faculty meeting or during professional development week. In so far as possible and where applicable, all decisions are measured against the program Mission Statement, “*Academic Excellence through student-centered learning in a creative, supportive environment.*”

#### **4.6 Describe how computer resources, such as the Internet, department and faculty web pages, and emails are used by faculty in the department/program.**

The Internet is used extensively by the faculty to research the medical literature in course preparation, teaching materials acquisition and assignments for students. The department

web page is used by perspective students to learn about the structure and policies of the department and to communicate with the program coordinator and the faculty. Email is widely used throughout the department.

**4.7 If your department/program has hiring equivalencies, explain the rationale and comment on alignment with Cuyamaca. Please list equivalencies in Appendix 11.**

The hiring equivalencies used by the department are modeled after those required by State Chancellor's Office and incorporate the recommendations of the *Guidelines & Essentials* published by the Joint Review Committee on CVT Education. The *Guidelines & Essentials* require that teachers in an accredited program demonstrate competency in the scope of practice by passing a national registry exam administered by Cardiovascular Credentialing International (CCI) or the American Registry of Diagnostic Medical Sonographers (ARDMS). The minimum qualifications and equivalencies are included in Appendix 11.

**4.8 List and describe the duties of classified staff, work study and student workers who are directly responsible to the department/program.**

JoAnn Faulise was the Health Professions Student Specialist for many years and provided administrative support to the CVT Program, the Orthopedic Technology Program and the Speech Language Pathology Program. Her duties were myriad and included:

- Providing secretarial support to three program coordinators
- Routine clerical duties (answering phones, typing, preparing correspondence, maintaining student files, maintaining clinical logs, mailing, processing and filing student assessment reports, preparing state and national reports, preparing accreditation documents)
- Providing information about the programs to the public by a variety of means (mailing brochures, answering telephone questions, greeting and answering questions for walk-ins, responding to email messages, preparing materials for presentations to students and the public)
- Development and maintenance of the Web pages for the 3 programs
- Accept and review student applications, transcripts and other information to determine compliance with program prerequisites.
- Accept and review student physical and dental forms to assure program compliance and verify that CPR, Tbc, Drug Screening and Criminal Background Checks and Malpractice Insurance compliance requirements are met and on file prior to student assignment to clinical practicum.

JoAnn passed away in November 2008 following a protracted illness, and her position is currently filled by Leslie Lacher who is a temporary employee. The position will be filled on a permanent basis when college resources permit.

The department also shares with the other Health Professions Programs in the support provided by two Health Professions Laboratory Technicians, Pat Murray and Dan Lopez. The technicians provide services which include:

- Preparing labs and equipment
- Providing instructional equipment such as projectors, computers, sound amplification equipment
- Training and supervising work-study students in the performance of their duties
- Performing routine maintenance on equipment
- Providing inventory control, ordering and stocking consumable supplies

The department also hires 2<sup>nd</sup> year students to serve as tutors to 1<sup>st</sup> year students in the acquisition and refinement of basic clinical skills and to work in the Health Professions Computer Center. The number of tutors employed varies semester-to-semester. There are currently 16 students employed.

**4.9 Discuss your staffing factors that influence the effectiveness of the program. Does your department/program need to decrease, maintain, or increase the number of full-time faculty? Support your response with enrollment trends, future outlook for your department/program and any information related to changes in the economy, business or human services needs. Include discussion of part-time vs. full-time ratios and dependence on overloads.**

The optimal number of students for enrollment in the program each year is 54. This number is determined by the number of hospitals/clinical sites available in the San Diego area for clinical experience in the second year of the program and considers an attrition of approximately 10-12% in the first semester. Current staffing levels of 4 full time and 7 part time instructors are considered adequate for the instructional program at current enrollments.

Coordination of the program is a full time job but is routinely filled by a full time faculty member who also teaches classes in accordance with college policy. The CVT Coordinator is also responsible for coordinator support for the Telemetry Tech, Ortho Tech and Anesthesia Tech programs. While an increase in full time or part time faculty is not needed at this time, a full time position for the CVT Coordinator would be optimum for the overall effectiveness of the programs.

## **SECTION 5 – SCHEDULING EFFECTIVENESS AND ROOM UTILIZATION**

**Refer to Appendix 7 for efficiency. Enrollment will come from Data on Demand; Appendix 5 has the sections and class sizes. Appendix 12 shows % of max.**

**5.1 Using *Appendices 7 and 8*, comment on student success figures since the last program review. How does this compare to the campus-wide figures?**

**Percent Student Success**

- a. Gender – Overall success rate by gender over the past six years had a range of 88.9% - 94.8% and a mean of 91.4%. Retention of female students is slightly higher than males by less than 5 points in general.
- b. Age – Success by age in the same period demonstrated a range of 88.9% – 94.8% and a mean of 91.9%.
- c. Ethnicity – Success by ethnicity for the same period demonstrated a range of 88.9% - 94.8% with a mean of 91.8%.

The overall mean success rate for CVT courses is 91.7% which is significantly higher than that of the overall college average of 64.6%.

There is a general tendency that older students have higher success rates. The data indicates that students in the age range of 20-29 were most successful with regard to percent success.

Student success by ethnicity is listed in the following table:

Pacific Islander	100.0%
Asian	96.5%
White non-Hispanic	93.2%
Unknown	91.4%
Hispanic	90.8%
Other	89.4%
Filipino	86.9%
Black non-Hispanic	86.0%
American Indian-Alaskan Native	83.8%

**Course Retention**

Course retention CVT students for the reporting period averaged 94.1 percent compared to a college average of 78.2%. Female retention rates are generally higher than males. The highest retention by age is 25 – 29 years group. Retention by ethnicity percent rates tend to follow those for student success with Asian students slightly higher than all other groups and Hispanic being slightly lower.

**5.2 Analyze and comment on any trends in enrollment, numbers of sections offered, average class size and efficiency.**

The number of students that can be enrolled in the program is determined by faculty and laboratory resources and the number of clinical sites available for placement of 2<sup>nd</sup> year students in the San Diego area as noted earlier. Fifty-four students are accepted to begin training each Fall Semester, and there is a waiting list. Enrollments, numbers of sections average class size and efficiency have remained stable since our previous Program Review.

**5.3 Comment on any sections that are historically under-enrolled and discuss strategies that might increase enrollment.**

Not applicable. Please see 5.3 above.

**5.4 Comment of the adequacy of facilities (e.g., does room size and configuration fit the teaching strategies?) and equipment for meeting instructional needs.**

Classrooms for lecture classes are adequate for current enrollments. Some sections of lab are crowded but manageable. There is inadequate room to store equipment throughout the 300 North building which has a negative impact on all Allied Health Programs. Construction of the new Health Science building will address that issue.

**5.5 How does room availability affect your enrollment?**

Please see item 5.2 above.

**5.6 Discuss alternatives your department/program has explored including off-site offerings.**

If assignment to students for clinical experience is included in off-site offerings, the program obviously relies heavily on local area hospitals and clinics to support our instructional program. It would not be effective or efficient to offer the majority of our major classes off-site since many are related to medical instrumentation located on campus. Although a class may be designated as "lecture" in scope, it is not unusual for an instructor to bring an electrocardiograph, ultrasound machine, pacemaker or other medical device into the classroom to enhance learning.

**5.7 Comment on the results of the Student Survey, Appendix 6, focusing on class times and facilities.**

**FACILITIES:**

Classrooms – 92.2% of student strongly agree or agree that the classrooms are clean and in good repair.

Equipment – 15.6% of students strongly agree, 42.9% agree and 15.6% are neutral on the availability and currency of equipment. 26% of the students agree or strongly disagree. It should be noted that the equipment consists of highly supplicated medical instrumentation and most is state-of-the-art and is deemed by the faculty to be adequate to current enrollments. The currency and state of the equipment is currently at the highest level in the history of the program. The current need for equipment in the lab is for additional monitors for the lab tables in Room 349 and will be a priority in our request for FY 2008.

Computer Technology – The Health Professions Computer Center has been upgraded by Instructional Media Services at the close of the Fall 07 semester. When the student survey was conducted 72.8% of students responded that computer technology was adequate and that number is expected to rise following the recent upgrade.

Class Times – The CVT curriculum tototally integrated, and all students must be fully enrolled in the Spring and Fall courses as appropriate. The labs are used extensively and shared with ROP and Anesthesia Technology classes, leaving little flexibility of altering the class schedule. Lectures and labs must also be scheduled in consideration of student assignment to local hospitals for clinical practicum.

## SECTION 6 – FISCAL PROFILE

### 6.1 Using *Appendix 12, Subject WSCH Analysis Report*: comment on trends reflected in the column “Earned WSCH/FTE(F)” for your overall department/program, and for specific courses over a five year period.

The overall WSCH/FTEF for the fall semesters were evaluated and the following data obtained:

Semester/Year	WSCH/FTEF
Fall 01	284
Fall 02	360
Fall 03	366
Fall 04	384
Fall 05	356

Analysis: The WSCH/FTEF has remained relatively consistent over the years Fall 02 through Fall 05. The increase from 284 to 360 from Fall 01 to Fall 02 was due to an additional course being added to the Invasive Track of the program.

**6.2 Using Appendix 14, Fiscal Data; Outcomes Profile: analyze and comment on Earned WSCH/FTEF and Cost/FTES of the Department/Program.**

Total WSCH grew from 3,567 to 4,372 from FY 01/02 to FY 02/03 and has remained consistent over the past 5 years. The average for that period is 4472. Cost/FTES has declined from \$4,192.08 to \$3,436.13 over the same period. The average is \$3,626.

**6.3 If the department/program receives any outside financial support or subsidy, list those sources and the amount. Describe how the additional resources are used and how they relate to the regular college budget.**

The department was awarded a Bridge to Salary Grant for \$100,000 by the Grossmont Healthcare District in August 2008. The funds have been used to provide a \$1,000/month stipend to 4 full time CVT faculty members. The funding will be adequate for 2 years of stipends. The Grossmont Foundation has conducted a campaign to raise funds, resulting in approximately \$19,000 in donations. These funds will be used to recruit and retain qualified faculty. The fund-raising effort is on-going. In addition, the department receives VATEA funds to support the instructional process. A total of \$9,360 was received in VATEA funds for FY 07/08 and they were used for tutors, supplies and equipment.

## **SECTION 7 – SUMMARY**

**7.1 Summarize department/program strengths and weaknesses in terms of:**

- **teaching and learning**
- **student access and success**
- **development of human resources**
- **fiscal stability**

Teaching & Learning – The Cardiovascular Technology faculty are highly motivated to excellence in their profession. They are outstanding mentors for our students and work hard to maintain currency to the scope of practice and in turn insure their courses are maintained on the cutting edge of medical diagnostics and intervention. Learning is student centered, uses current teaching methodology and equipment, and is designed to promote critical thinking, which is absolutely essential for a Cardiovascular Technologist in clinical practice. Our campus labs are equipped with state-of-the-art medical instruments and students have access to millions of dollars worth of equipment through our clinical affiliates that is not available on campus. A portion of our advanced clinical labs are conducted at local hospitals by practicing technologists where students receive virtually one-on-one instruction in invasive diagnostic and interventional cardiology, and cardiac and vascular ultrasound. There are two physicians that serve as our Medical Directors and an outstanding Advisory Committee to provide guidance as to curriculum content and currency. The program has support from the medical equipment industry, who



**Fiscal Stability** – The CVT budget is adequate for current enrollment provided an answer can be found with regard to faculty salaries. We have been fortunate to share in a series of block grants and donations that bring our labs and equipment to state-of-the-art status. The skills necessary in diagnostic medical imaging cardiac interventional procedures require small labs and tutor support, which makes the average CVT lab rather costly when compared to labs conducted on campus.

## **SECTION 8 – CONCLUSIONS AND RECOMMENDATIONS**

- 8.1 Make a rank-ordered list of department/program recommendations. These recommendations should be clearly based on the information included in Sections 1 through 7. Do not limit recommendations to only those dealing with resources.**

**Recruit and hire a replacement for the CVT Health Professions Specialist**  
**Begin training a member of the CVT faculty to assume the Program Coordinator position**  
**Continue the provision of qualified tutors to assist students in the acquisition and refinement of basic and advanced skill in diagnostic testing**  
**Maintain the curriculum current to the scope of practice**  
**Explore ways of encouraging students to maintain contact with the program and to participate in national registry exams**  
**Complete the transition and physical relocation of the department to the new science building**  
**Develop selected components of the CVT curriculum into online or hybrid format**  
**Continue the existing and expand program linkages to the medical equipment industry in order to acquire state-of-the-art instrumentation to be used in lab practicum.**

provide discounts on equipment and in some cases provide expensive medical instruments for our students. The most recent example was the donation of a \$63,000.00 ultrasound machine by Biosound Esaote, Inc.

The biggest challenge to teaching and learning in the past 6 years has continued to be the difficulty in recruiting and maintaining qualified faculty. Graduates of the program typically begin their career as a Cardiovascular Technologist at a higher salary than a beginning college teacher. When an experienced, qualified technologist is found who can also “teach,” the program is unable to compete with the salaries paid in clinical practice which can average \$80,000 to \$90,000 per year base, plus additional income for being on call for emergency cases.

The other major challenge to the program in recent years has been the lack of space to store equipment, but that will be eliminated when the new science building is completed.

Student Access & Success – Graduates of the program are recruited by hospitals and clinics nationwide. They obtain good jobs with excellent salaries and benefits and make a tremendous contribution to the diagnosis and treatment of patients with cardiovascular disease. Many go on to be managers, writers, teachers, medical researchers, and sales or applications reps in the medical equipment industry. These positions are stable with little threat of layoff during times of economic down-turn. The program has graduates throughout the United States, Australia, New Zealand, England, and the Middle East.

Access to the program follows a standardized process of first-come-first-served upon documentation of completion of the prerequisite courses. The number of students accepted is determined by available resources on campus and the number of clinical sites in San Diego County. There is an approximate 2 year waiting list to enter the program.

Development of Human Resources - Cardiovascular Technology is a very technical and ever-changing profession as new diagnostic and treatment modalities are incorporated into the scope of practice. In order for faculty to remain current in their specialty conference attendance where they can hear presentations on the latest findings in cardiovascular research, network with their peers and evaluate state-of-the-art instrumentation is essential.

One of the department activities for 2009/2010 focuses on exploring ways to develop selected components of the CVT curriculum in online or hybrid format and will require professional development for the faculty.

The current coordinator of the program has retired but returned to work until the faculty is stable at which time a new coordinator will be appointed and trained to assume the responsibilities of the department.

**Appendix 1**

**Educational  
Master  
Plan**

Education Master Plan 2007-2008

# Grossmont College

## Educational Master Plan

### 2007-2008

Record Updated. Thank you. You may print this page for your records.

**Division:** Business and Professional Studies

**Department:** Cardiovascular Technology

**Director or Chair:** Rick Kirby

**Program Description:** Cardiovascular Technologists participate in the performance of diagnostic tests and procedures in three specialty areas: Cardiac Catheterization, which utilizes invasive techniques to produce x-ray pictures of the heart and special devices to open blocked arteries and prevent heart attacks; Cardiac Ultrasound (echocardiography) studies; and Diagnostic Vascular Ultrasound both of which utilize non-invasive techniques to produce pictures of the heart and blood vessels. Students participate in lectures and labs on-campus as well as clinical experience at local hospitals. The program is accredited by the Commission on the Accreditation of Allied Health Programs (CAAHEP). Career opportunities are outstanding, offering excellent salaries and employment opportunities locally and throughout the nation. Cardiovascular Technology is a challenging and rewarding career, and provides an opportunity to use the latest in diagnostic and therapeutic technology to help patients with cardiovascular disease. Planning is currently underway for the new Health Professions building which will provide enhanced instructional delivery, a modern facility and increased storage space for equipment and supplies. This process will be a major focus for the department over the next 2-3 years.

---

**Activity #1:** Recruit and hire a full time faculty member to replace the instructor/coordinator who is retiring at the end of Spring 07.

**Benefit:** Maintain the curriculum current to the scope of practice, meet accreditation standards and provide for continuity of instruction with the program.

**Requirements:**

Staffing - Faculty

**Primary Strategic Goals:** 4

**Objective Goal:** 4.1

---

**Activity # 2:** Provide tutoring in basic and advanced academic and diagnostic techniques.

**Benefit:** Assist student in acquiring clinical skills and preparing them for the workplace. Student report that access to qualified tutors in a major contributor to their success in the program.

**Requirements:**

**Primary Strategic Goal:** 1

**Objective Goal:** 1.1

---

**Activity #3:** Continue the review and revision of the CVT curriculum to include Student Learning Outcomes per current college policy.

**Benefit:** Insure maximum efficiency of the program in serving students and preparing them for new careers in the Allied Health Professions.

**Requirements:**

Curriculum Development

Staff Development

**Primary Strategic Goal:** 1

**Objective Goal:** 1.2

---

**Activity #4:** Provide assistance to the ROP Department in the development of the Anesthesia Monitoring Program. Assist with curriculum development and acquisition of staff as appropriate.

**Benefit:** Respond to a community request to fill a need for training for Anesthesia Monitoring technicians.

**Requirements:**

Curriculum Development

Equipment

Facilities

Staffing - Faculty

**Primary Strategic Goal:** 2

**Objective Goal:** 2.1

---

**Activity #5:** Continue the review and revision of the CVT Core Curriculum to assure currency to the scope of practice.

**Benefit:** Maintain the curriculum current to the scope of practice and prepare graduates for the workplace.

**Requirements:**

Curriculum Development

Staff Development

**Primary Strategic Goal:** 1  
**Objective Goal:** 1.1

---

**Additional Planning:** N/A

---

**Accomplishment #1:** Recruited and hired a full time instructor to replace a staff member who became a Division Dean.

**Primary Strategic Goal:** 4  
**Objective:** 4.1

---

**Accomplishment #2:** Provided on-campus tutoring to students in the first year of the program and advanced tutoring to students in the specialty tracks in local clinical facilities.

**Primary Strategic Goal:** 1  
**Objective:** 1.1

---

**Accomplishment #3:** Acquired 2 state of the art ultrasound instruments for use in campus labs.

**Primary Strategic Goal:** 1  
**Objective:** 1.1

---

**Accomplishment #4:** Assisted in the initiation of the ROP Anesthesia Monitoring Technician courses.

**Primary Strategic Goal:** 1  
**Objective:** 1.1

---

**Accomplishment #5:** Provided advanced seminars by a content expert on transcranial and abdominal Doppler techniques.

**Primary Strategic Goal:** 6  
**Objective:** 6.3

---

**Accomplishment #6:** None

**Primary Strategic Goal:** 0

Objective: 0

---

Accomplishment #7: None

Primary Strategic Goal: 0

Objective: 0

---

Accomplishment #8: None

Primary Strategic Goal: 0

Objective: 0

---

Accomplishment #9: None

Primary Strategic Goal: 0

Objective: 0

---

Accomplishment #10: None

Primary Strategic Goal: 0

Objective: 0

---

Other Accomplishments: None

---

- [Display goal & objective descriptions](#)
- [Return to EMP home page](#)
- [Close window](#)

# Appendix 2

## Previous Program Review Summary



**Cardiovascular Technology  
PROGRAM REVIEW COMMITTEE  
SUMMARY EVALUATION**

SCHOOL YEAR	FALL SEMESTER		SPRING SEMESTER		COST/FTE	COMMITTEE RECOMMENDATION
	WSCH/FTEF	% of MAX WSCH	WSCH/FTEF	% of MAX WSCH		
1995-96	395.44	92%	354.88	76%	\$2221.74	MAINTAIN
1996-97	379.17	89%	374.82	79%	\$2398.84	
1997-98	405.74	95%	386.34	77%	\$2456.71	
1998-99	385.26	92%	364.39	79%	\$2816.48	
99-2000	360.70	89%	476.58	80%	\$2775.55	

**The program review committee commends the department for:**

1. State-of-the-art lab allowing students hands-on experience with cardiac catheterization, echocardiogram and diagnostic vascular ultrasound.
2. Development of an effective learning community among your students, developing leadership skills and community involvement.
3. Increased student accessibility through extra computer lab hours and the availability of online resources and web supported instruction.
4. Four innovative faculty members.
5. Good connections with counseling and use of the Health Services Office.
6. High school outreach efforts.

**CVTE**

**The committee offers the following recommendations:**

1. Continue work to develop a GE package that better meets the needs of your students.
2. With other health sciences, utilize campus and district resources for marketing and public awareness of the program in the community.
3. Advance the planning process for the new and remodeled health sciences building.
4. Seek general fund support for tutoring.

---

*Jed Marting*  
College President

---

*Shirley DeBevoise*  
Academic Program Review Chair

# Appendix 3

## Catalog Descriptions

Subject & Number	Title	Units
Business Office Technology 100	Basic Keyboarding	1
Business Office Technology 118	Integrated Office Projects	1
Business Office Technology 120	Comprehensive Word, Level I	1
Business Office Technology 114	Essential Word Comprehensive Word, Level II	(1) 1
Business Office Technology 121	Comprehensive Word, Level II	1
Business Office Technology 122	Comprehensive Word, Level III	1
Business Office Technology 123	Comprehensive Excel, Level I	1
Business Office Technology 115	Essential Excel Comprehensive Excel, Level II	(1) 1
Business Office Technology 124	Comprehensive Excel, Level II	1
Business Office Technology 125	Comprehensive Excel, Level III	1
Business Office Technology 126	Comprehensive Access, Level I	1
Business Office Technology 116	Essential Access Comprehensive Access, Level II	(1) 1
Business Office Technology 127	Comprehensive PowerPoint, Level I	1
Business Office Technology 117	Essential PowerPoint Comprehensive PowerPoint, Level II	(1) 1
Business Office Technology 130	Comprehensive PowerPoint, Level II	1
	<b>Total</b>	<b>12</b>

### Virtual Office Assistant

This Certificate of Proficiency prepares students to create and run a virtual office business. More specifically, the certificate prepares a student to act as an entrepreneur specializing in administrative services provided to clients in a virtual environment. All classes must be completed with a "C" grade or higher.

Subject & Number	Title	Units
Business Office Technology 100	Basic Keyboarding	1.0
Business Office Technology 103A	Building Keyboarding Skill I	0.5
Business Office Technology 103B	Building Keyboarding Skill II	0.5
Business Office Technology 111	Virtual Assistant	2.0
Business Office Technology 115	Essential Excel	1.0
Business Office Technology 120	Comprehensive Word, Level I	1.0
Business Office Technology 121	Comprehensive Word, Level II	1.0

Business Office Technology 150	Using Microsoft Publisher	1.0
Business 141	Entrepreneurship: Managing a New Business	3.0
Business 146	Marketing	3.0
	<b>Total</b>	<b>14</b>

## CARDIOVASCULAR TECHNOLOGY

*See page 11 for special admission procedures and criteria.*

The Cardiovascular Technology program at Grossmont College is a two-year course of study leading to an Associate in Science Degree or Certificate of Achievement. Graduates of the program enter the health care profession as Cardiovascular Technologists.

Cardiovascular Technology students are educated in the theory and clinical application of diagnostic tests used in the diagnosis and treatment of cardiovascular disease. The first year of the program is composed of a core curriculum of courses which encompass physics, mathematics, cardiovascular anatomy, physiology and pathophysiology, medical electronics and instrumentation, and the application of clinical cardiovascular techniques.

In the second year of the program students select one of three subspecialties for concentrated study which includes lecture, laboratory and clinical experience courses. The subspecialties are:

### 1. Invasive Cardiovascular Technology

Invasive Cardiovascular Technologists work in cardiac catheterization laboratories where they assist the cardiologist in performing diagnostic and treatment procedures such as cardiac catheterization, balloon angioplasty, electrocardiographic monitoring and angiography. The technologist assists in the catheterization procedure, operates various electronic instruments and calculates clinical information for interpretation by the physician.

### 2. Noninvasive Cardiovascular Technology (Cardiac Ultrasound)

Noninvasive Cardiovascular Technologists perform cardiac ultrasound studies and specialized electrocardiographic procedures. The information obtained from these clinical studies is used by the physician to evaluate patients for cardiovascular disease and designing comprehensive treatment plans. The technologist performs the studies, operates various electronic instruments and calculates clinical information for interpretation by the physician.

### 3. Vascular Technology (Vascular Ultrasound)

Vascular Technologists perform ultrasound and other diagnostic studies to evaluate arterial and venous obstructions, which put patients at risk for loss of circulation in their extremities or a major stroke. The information obtained from these clinical studies is used by vascular surgeons and neurologists to establish the diagnosis, access the severity of existing disease, and to design comprehensive treatment plans. The

technologist performs the studies, operates various electronic instruments and calculates clinical information for interpretation by the physician.

In addition to the College application, a special application for Cardiovascular Technology is required. Applications to the Cardiovascular Technology Program are accepted between October 1 and March 31. Contact the Counseling Office and the Cardiovascular Technology Office (room 340B) for further information.

As of the Fall 2006 semester, students accepted to the Cardiovascular Program may be required to undergo a background check and/or a urine drug screening test before starting the program or being placed at a clinical site. The cost of these procedures may be \$70-\$120. The student will be responsible for paying these fees. Failure to pass either or both of these procedures may interfere with clinical placement and/or acceptance of the student into the program.

### Career Opportunities

Cardiac Catheterization  
 Cardiographic Technician  
 Cardiology Technologist  
 Cardiopulmonary Technician  
 Diagnostic Medical Sonographer  
 Echocardiographer  
 Electrocardiograph Technician  
 Related Department Manager  
 Vascular Technologist

### General Education Requirements for Cardiovascular Technology Majors

Courses in bold print are either prerequisites or required for the Certificate of Achievement.

#### Area A - Language And Rationality

Three courses (a minimum of nine units) are required in written communication, oral communication, and quantitative reasoning. At least ONE course must be taken from EACH of the following three sections:

##### 1. Written Communication

*Must be completed with a "C" or "CR" grade or higher to satisfy the competency requirement.*  
 English 110, 117, 120, 124

##### 2. Oral Communication

*Must be completed with a "C" or "CR" grade or higher to satisfy the competency requirement.*  
 Communication 120, 122

##### 3. Quantitative Reasoning

*Must be completed with a "C" or "CR" grade or higher to satisfy the competency requirement.*  
 Anthropology 215  
 Biology 215  
 Mathematics 103, 110, 120, 125, 126, 150, 160, 170, 175, 176, 178, 180, 245, 280, 281, 284, 285  
 Philosophy 125, 130  
 Psychology 215  
 Sociology 215

#### Area B - Natural Sciences

Two natural science courses (a minimum of seven units) are required. One course must contain a laboratory.

**Courses with an asterisk are laboratory only.**

#### **Courses not containing a laboratory component are underlined.**

Anthropology 130  
 Astronomy 110, 112\*  
 Biology 105, 110, 112, 114, 118, 120, 140, 141, 142\*, **144, 145**, 152, 210, 211\*, 212\*, 220, 221\*  
 Chemistry 110, 113, 115, 116, 120, 141, 142, 231, 232  
 Geography 120, 121\*, 140  
 Geology 104, 110, 111\*, 121, 210, 220, 230  
 Oceanography 112, 113\*  
 Physical Science 110, 111\*  
 Physics 110, 130, 131, 140, 240, 241  
 Science 110

#### Area C - Humanities

One humanities course (a minimum of three units) is required.

American Sign Language 120, 121, 140, 220  
 Arabic 120, 121, 220, 221, 250, 251  
 Art 100, 120, 124, 126, 129, 140, 141, 142, 143, 145, 154, 171, 189  
 Chinese 120, 121  
 Communication 124, 135, 137, 144, 145  
 Cross-Cultural Studies 122, 123, 126, 134, 144, 147, 149, 152, 236, 237, 238  
 Dance 110  
 English 112, 118, 122, 134-135-136-137, 201, 203, 215, 217, 218, 219, 221, 222, 231, 232, 234, 235, 236, 237, 238, 241, 242, 275, 276, 277  
 French 120, 121, 152, 220, 221, 250, 251  
 German 120, 121, 220, 221, 250, 251  
 History 100, 101, 105, 106, 126, 135, 137, 147  
 Humanities 110, 120, 125, 130, 135, 160, 170  
 Italian 120, 121, 220, 221, 250, 251  
 Japanese 120, 121, 149, 220, 221, 250, 251  
 Media Communications 111, 189  
 Music 110, 111, 114, 115, 116, 117, 189  
 Philosophy 110, 112, 114, 116, 118, 140, 141, 150  
 Religious Studies 120, 130, 140, 150  
 Russian 120, 121, 220, 221, 250, 251  
 Spanish 120, [120A\* and 120B\*], 121, 122, 123, 141, 145, 220, 221, 250, 251  
 Theatre Arts 110, 120, 121, 143, 144, 189

\*Spanish 120A and Spanish 120B are equivalent to one semester of Spanish 120.

#### Area D - Social Sciences

One social science course (a minimum of three units) is required.

Administration of Justice 110  
 Anthropology 120  
 Child Development 125  
 Communication 128  
 Cross-Cultural Studies 114, 115, 118, 119, 124, 125, 128, 130, 131, 132, 133, 145, 150, 151, 154, 155, 180, 181  
 Economics 110, 120, 121  
 Family Studies 115, 120  
 Geography 106, 130, 170  
 Health Education 120, 122  
 Health Science 110  
 History 108, 109, 114, 115, 118, 119, 122, 123, 124, 127, 150, 151, 154, 155, 180, 181  
 Media Communications 110  
 Political Science 120, 121, 124, 130, 140, 150, 160  
 Psychology 120, 125, 130, 132, 134, 138, 170  
 Sociology 114, 120, 125, 130, 138, 140

**Area of Emphasis - Fitness/Wellness**

Courses involving physical exercise and/or dance are required. They can be chosen from the exercise science and/or dance courses listed below:

Dance 072A-B-C-D, 074A-B-C-D, 078A-B-C-D, 080A, 080B, 080C, 080D, 081A, 081B, 082A-B-C-D, 084A, 084B, 084C, 084D, 088A, 088B, 088C, 088D, 094A-B-C-D, 099A-B-C-D, 116, 117

Exercise Science 001, 002, 003, 005, 006, 007, 008, 009, 021, 023, 027, 028, 029, 030, 035, 037, 039, 040, 043A, 043B, 043C, 044, 060A, 060B, 060C, 072A-B-C-D, 074A-B-C-D, 076A, 076B, 076C, 078A-B-C-D, 094A-B-C-D, 116, 117, 120A, 120B, 120C, 121, 125A, 125B, 125C, 130A, 130B, 130C, 135, 136, 150, 155A, 155B, 155C, 156, 170A, 170B, 170C, 171A, 171B, 171C, 172A, 172B, 172C, 175A, 175B, 175C, 180, 185A, 185B, 185C, 200, 201

**Associate Degree Major Requirements**

(Major Code: 52053)

Note: All courses in the major must be completed with a "C" grade or higher.

**Core Curriculum**

All students complete the following courses in the first year of the program:

Subject & Number	Title	Units
Cardiovascular Technology 100	Physical Principles of Medicine I	2
Cardiovascular Technology 101	Cardiovascular Physiology I	4
Cardiovascular Technology 102	Medical Instrumentation I	4
Cardiovascular Technology 103	Laboratory Practicum and Proficiency Testing I	2
Cardiovascular Technology 110	Physical Principles of Medicine II	2
Cardiovascular Technology 111	Cardiovascular Physiology II	4
Cardiovascular Technology 112	Medical Instrumentation II	4
Cardiovascular Technology 113	Laboratory Practicum and Proficiency Testing II	2
Cardiovascular Technology 114	Cardiovascular Pharmacology	2
Cardiovascular Technology 120	Clinical Practicum I	3
	<b>Total</b>	<b>29</b>

**Area of Emphasis****Invasive**

Subject & Number	Title	Units
Cardiovascular Technology 202	Diagnostic Procedures, Invasive Cardiology	4
Cardiovascular Technology 205	Clinical Practicum II	5
Cardiovascular Technology 207	Invasive Medical Instrumentation I	2
Cardiovascular Technology 208	X-Ray Physics and Cardiovascular Angiography	2
Cardiovascular Technology 212	Interventional Procedures, Invasive Cardiology	4

Cardiovascular Technology 215	Clinical Practicum III	5
Cardiovascular Technology 217	Invasive Medical Instrumentation II	2
Cardiovascular Technology 218	Intracardiac Electrophysiology	2
	<b>Total</b>	<b>26</b>
	<b>Total Required</b>	<b>55</b>
	Plus General Education and Elective Requirements	

**Area of Emphasis****Noninvasive**

Subject & Number	Title	Units
Cardiovascular Technology 200	Medical Instrumentation III	3
Cardiovascular Technology 201	Diagnostic Procedures I, Noninvasive Cardiology	4
Cardiovascular Technology 205	Clinical Practicum II	5
Cardiovascular Technology 210	Medical Instrumentation IV	3
Cardiovascular Technology 211	Diagnostic Procedures II, Noninvasive Cardiology	4
Cardiovascular Technology 215	Clinical Practicum III	5
	<b>Total</b>	<b>24</b>
	<b>Total Required</b>	<b>53</b>
	Plus General Education and Elective Requirements	

**Area of Emphasis****Vascular Technology**

Subject & Number	Title	Units
Cardiovascular Technology 200	Medical Instrumentation III	3
Cardiovascular Technology 203	Diagnostic Procedures I, Vascular Technology	4
Cardiovascular Technology 205	Clinical Practicum II	5
Cardiovascular Technology 210	Medical Instrumentation IV	3
Cardiovascular Technology 213	Diagnostic Procedures II, Vascular Technology	4
Cardiovascular Technology 215	Clinical Practicum III	5
	<b>Total</b>	<b>24</b>
	<b>Total Required</b>	<b>53</b>
	Plus General Education and Elective Requirements	

## Certificate of Achievement

Any student who chooses to complete only the Cardiovascular Technology prerequisites and core curriculum plus one of the areas of emphasis and the general education courses listed below qualifies for a Certificate of Achievement in Cardiovascular Technology. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

Subject & Number	Title	Units
Communication 120	Interpersonal Communication	3
or		
Communication 122	Public Speaking	(3)
English 110	College Composition	3
or		
English 120	College Composition and Reading	(3)
Total		6
Plus Core Curriculum		29
Plus One Area of Emphasis		24-26
Total Required		59-61

## CHEMISTRY

The chemistry major prepares students to transfer to four-year institutions for continued study in the field of chemistry. The program outlined below fulfills the lower division requirements recommended by the American Chemical Society and is typical of requirements at four-year transfer institutions. Students should consult the catalog of the transfer institution for specific requirements. Assistance in planning a course of study is available at the Counseling Center or from the Department of Chemistry faculty. The department recommends that students take one year of Russian or German (or high school equivalency) for credit under Humanities Area C, Section 2 of the associate degree general education requirements.

### Career Opportunities

Analytical Chemist\*  
 Biochemist\*  
 Biotechnologist\*  
 Chemistry Teacher\*  
 Dentist\*  
 Environmental Technician+  
 Forensic Specialist\*  
 Industrial Health Engineer\*  
 Laboratory Technician  
 Pharmacist\*  
 Physician\*  
 Research Chemist\*  
 Safety Manager  
 Sanitarian+  
 Veterinarian\*

Water-quality Analyst

\*Bachelor's Degree or higher required.

+Bachelor Degree normally recommended.

## Associate Degree Major Requirements

(Major Code: 50026)

Subject & Number	Title	Units
Chemistry 141	General Chemistry I	5
Chemistry 142	General Chemistry II	5
Chemistry 231	Organic Chemistry I	5
Chemistry 232	Organic Chemistry II	5
Total		20

Select SIXTEEN (16) units from the following courses:

Subject & Number	Title	Units
Mathematics 180	Analytic Geometry & Calculus I	5
Mathematics 280	Analytic Geometry & Calculus II	4
Mathematics 281	Intermediate Calculus	4
Mathematics 285	Linear Algebra and Differential Equations	3
Physics 140	Mechanics of Solids	4
Physics 240	Electricity, Magnetism & Heat	4
Physics 241	Light, Wave Motion and Modern Physics	4
Total		16
Total Required		36
Plus General Education and Elective Requirements		

## Certificate of Achievement

Any student who wishes to complete only the requirements listed above qualifies for a Certificate of Achievement in Chemistry. An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## CHILD DEVELOPMENT

The Child Development curriculum is designed to prepare students for employment as teachers, directors and aides in preschools and child care centers, including infant/toddler and school age children. Coursework in this program meets the educational components of the Department of Social Services license regulations for child care programs. The associate degrees in Child Development meet the educational requirements of Teacher, Master Teacher and Site Supervisor Child Development Permits.

These courses are also appropriate for family child care providers, parents, administrators, health care professionals, and others working with children. Courses are designed to partially meet lower division course preparation for students planning a bachelor's degree in Child Development.

## **BUSINESS OFFICE TECHNOLOGY 299** **Selected Topics in Business Office Technology**

3 units, 3-9 hours

**Prerequisite:** Varies with topic.

Selected topics in Business Office Technology not covered by regular catalog offerings. Course content and its credit to be determined by the Division of Business and Professional Studies in relation to community/student need(s) and/or available staff. May be offered as a seminar, lecture or laboratory class.

## **CARDIOVASCULAR TECHNOLOGY (CVTE)**

### **CARDIOVASCULAR TECHNOLOGY 100 †**

#### **Physical Principles of Medicine I**

3 units, 3 hours lecture

**Prerequisite:** A "C" grade or higher in Biology 144 and 145 or equivalent.

**Corequisite:** Concurrent enrollment in CVTE 101, 102 and 103.

A course in the mathematics and physical principles of medicine specifically applicable to the field of Cardiovascular Technology. Designed for students enrolled in the Cardiovascular Technology Program, the course includes studies in the use of arithmetic formulas and physics used to evaluate the hemodynamics of the cardiovascular system.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 101 †**

#### **Cardiovascular Physiology I**

3 units, 4 hours lecture

**Prerequisite:** A "C" grade or higher in Biology 144 and 145 or equivalent.

**Corequisite:** Concurrent enrollment in CVTE 100, 102 and 103.

A study of the anatomy, physiology, structural relationships, and pathophysiology of the human heart and vascular system. Designed for students enrolled in the Cardiovascular Technology Program, the course will concentrate on specialized terminology, cardiac anatomy, electrocardiography, and hemodynamics.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 102 †**

#### **Medical Instrumentation I**

4 units, 2 hours lecture, 6 hours laboratory

**Prerequisite:** A "C" grade or higher in Biology 144 and 145 or equivalent.

**Corequisite:** Concurrent enrollment in CVTE 100, 101 and 103.

An integrated course in medical electronics and instrumentation for the cardiovascular technology student. The course will emphasize the concepts of electrical safety, the clinical application of electronic instruments and devices used in cardiovascular medicine, and the characteristics, recording, and measurement of bioelectric signals.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 103 †**

#### **Laboratory Practicum and Proficiency Testing I**

2 units, 1 hour lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in Biology 144 and 145 or equivalent.

**Corequisite:** Concurrent enrollment in CVTE 100, 101 and 102.

A practicum course designed to insure competency in the basic skills required in the clinical practice of cardiovascular technology. Students acquire skills in the performance of indirect blood pressure measurement, ultrasound imaging of the heart and vascular system, and calculation of specified hemodynamic parameters.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 104 †**

#### **Electrocardiographic Theory**

3 units, 3 hours lecture

**Corequisite:** Concurrent enrollment in CVTE 105.

A study of the electrocardiographic theory and principles required to perform basic 12-lead electrocardiograms. Instruction in ECG graph interpretation to identify cardiac rate, axis, arrhythmias, myocardial infarctions and ischemia.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 105 †**

#### **Electrocardiographic Technique**

2 units, 6 hours laboratory

**Corequisite:** Concurrent enrollment in CVTE 104.

A course in the practical application of the technique for recording and interpreting standard electrocardiograms. Students will perform and interpret electrocardiograms in an on-campus laboratory setting and be assigned to lab rotations in local clinical facilities for a portion of the semester.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 106 †**

#### **Advanced Electrocardiographic Studies**

5 units, 4 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 104 and 105 or equivalent.

A study of the theory, clinical application and hospital administrative requirements associated with cardiac arrhythmia and heart block recognition; and their correlation to cardiac stress testing, pacemaker evaluation, ambulatory ECG recording and Electrocardiographic telemetry.  
*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 107 †**

#### **Introduction to Clinical Practicum I**

1 unit, 1 hour lecture

**Prerequisite:** A "C" grade or higher in all first semester classes of the CVTE Core Curriculum (CVTE 100, 101, 102 and 103).

**Corequisite:** Concurrent enrollment in CVTE 110, 111, 112 and 113.

A course to introduce Invasive, Noninvasive and Noninvasive Vascular Technology students enrolled in the Cardiovascular Technology Program to the clinical environment. The course is designed to acquaint the student with the day-to-day activities in the clinical environment and to enable them to select a subspecialty within the broad arena of Cardiovascular Technology.  
*Transfers to CSU*

† This course meets all Title 5 standards for Associate Degree Credit.



**CARDIOVASCULAR TECHNOLOGY  
108 †****Advanced Cardiac  
Monitoring**

2 units, 2 hours lecture

**Prerequisite:** A "C" grade or higher in CVTE 106.

A study of the advanced cardiac dysrhythmias that Cardiac Monitoring Technicians are required to know before employment can be obtained in this field. Special attention will be given life-threatening dysrhythmias along with techniques for distinguishing between aberrant rhythms and life-threatening dysrhythmias.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
110 †****Physical Principles of  
Medicine II**

2 units, 2 hours lecture

**Prerequisite:** A "C" grade or higher in all first semester classes of the CVTE Core Curriculum (CVTE 100, 101, 102 and 103).

**Corequisite:** Concurrent enrollment in CVTE 111, 112 and 113.

This course is a continuation of Cardiovascular Technology 100 with emphasis on the physical characteristics of sound, ultrasound, and Doppler ultrasound as utilized in medical diagnostic testing. The course explores the physics involved in the formation, propagation, and reflection of sound and ultrasound, the characteristics of the various types of transducers used in echocardiography and vascular duplex scanning, and the mathematical techniques employed in the use of ultrasound to measure and calculate hemodynamic function indices.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
111 †****Cardiovascular Physiology II**

4 units, 4 hours lecture

**Prerequisite:** A "C" grade or higher in all first semester classes of the CVTE Core Curriculum (CVTE 100, 101, 102 and 103).

**Corequisite:** Concurrent enrollment in CVTE 110, 112 and 113.

A continuation of Cardiovascular Technology 101, Cardiovascular Physiology I, with emphasis on electrocardiographic arrhythmia recognition, the anatomy, physiology, and pathophysiology of specified congenital heart disease, the structure and function of the arterial, venous, capillary and pulmonary circulations and the techniques for measuring and/or calculating specified hemodynamic function indices.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
112 †****Medical Instrumentation II**

4 units, 2 hours lecture, 6 hours laboratory

**Prerequisite:** A "C" grade or higher in all first semester classes of the CVTE Core Curriculum (CVTE 100, 101, 102 and 103).

**Corequisite:** Concurrent enrollment in CVTE 110, 111 and 113.

A continuation of basic principles in medical electronics and instrumentation, this course will emphasize the issues of medical signal transduction, conditioning and recording. The application of computer technology in analog to digital conversion, digital to analog conversion and medical data logging will also be studied. This course also surveys the types of medical electronics and instrumentation utilized in testing throughout the hospital and presents their clinical results.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
113 †****Laboratory Practicum  
and Proficiency Testing II**

2 units, 1 hour lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in all first semester classes of the CVTE Core Curriculum (CVTE 100, 101, 102 and 103).

**Corequisite:** Concurrent enrollment in CVTE 110, 111 and 112.

This course is a continuation of Cardiovascular Technology 103, Laboratory Practicum and Proficiency Testing I. It is designed to provide lecture and laboratory practicum necessary to develop cognitive and manipulative skills in the clinical operation of specified cardiovascular instrumentation, and in the performance of diagnostic tests.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
114 †****Cardiovascular  
Pharmacology**

2 units, 2 hours lecture

**Prerequisite:** A "C" grade or higher in all second semester classes of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113).

This course introduces the concepts of drug classification, pharmacokinetics, delivery systems, drug interactions and dosage. A survey of all drug categories will be presented, but emphasis will be placed on cardiac and vascular medications. Drugs administered during cardiovascular procedures is the focus of this course.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY  
120 †****Clinical Practicum I**

3 units, 1 hour lecture, 6 hours laboratory

**Prerequisite:** A "C" grade or higher in all second semester classes of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113).

This course provides an introduction to cardiovascular diagnostic testing in the clinical environment. Elements of routine patient care, the patient-technologist relationship, and the professional relationship between the physician and the technologist in clinical practice will be defined. Students are assigned to clinical experiences in local hospitals in addition to on-campus lecture and laboratory classes. This course is offered during the summer between the first and second years of the Cardiovascular Technology Program.

*Transfers to CSU*

† This course meets all Title 5 standards for Associate Degree Credit.

### **CARDIOVASCULAR TECHNOLOGY 198** **Supplemental Tutoring**

5 units, 50 hours

**Prerequisite:** Official enrollment in smont College.

This course uses a variety of educational methods to assist students with various learning needs. It could be used to strengthen prerequisite skills prior to enrolling in a specific course or to provide supplemental assistance while enrolled in another course. The course may be repeated with different content. There is a no fee/no credit course.

### **CARDIOVASCULAR TECHNOLOGY 199** **Social Studies or Projects in Cardiovascular Technology**

3 units, 3-9 hours

**Prerequisite:** Consent of instructor.

This course involves individual study, research or projects in the field of cardiovascular technology under instructor guidance. Written reports and periodic conferences are required. Content and unit credit to be determined by student/instructor conferences and/or division. May be repeated for a maximum of nine units.

### **CARDIOVASCULAR TECHNOLOGY 201** **Medical Instrumentation III**

4 units, 2 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the Cardiovascular Technology Core Curriculum (CVTE 110, 111, 112 and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 205 and 201 or 203.

This course provides instruction on the theory, operation, and clinical application of specified diagnostic medical instrumentation. The lecture portion of the course explores the relationship of components of the medical history and physical examination to diagnostic test findings, and introduces the student to the application of diagnostic instrumentation in medical research. The laboratory portion provides advanced instruction in performance of specified diagnostic tests in noninvasive and vascular technology.

*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 201 †** **Diagnostic Procedures, Noninvasive Cardiology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 205, 207 and 208.

A course of instruction in the specialized techniques of noninvasive cardiovascular testing and the evaluation of cardiovascular disease. Lectures will stress the performance and analysis of the echocardiogram, the relationship of echocardiographic findings to cardiac pathology and the measurement and calculation of specified hemodynamic parameters. Laboratory sessions are conducted in noninvasive cardiac laboratories in local hospitals with advanced instruction in M-Mode and two-dimensional echocardiography.

*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 202 †** **Diagnostic Procedures I, Invasive Cardiology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 205, 207 and 208.

This course provides advanced study in medical electronics and instrumentation, focusing on devices utilized in invasive cardiology. Emphasis will be placed upon advanced physiologic recording devices, blood pressure transducers, cardiac output measurement systems, fluid delivery and routing systems, as well as mechanical injector systems.

*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 203 †** **Diagnostic Procedures I, Vascular Technology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 200 and 205.

A course of instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology. Lectures will stress the performance and analysis of vascular ultrasound scanning, spectral analysis and the interpretation of scanning and non-scanning modalities for vascular testing. Laboratory sessions are conducted in vascular laboratories in local hospitals, with instruction in techniques of duplex scanning of the cerebrovascular and lower-extremity vasculature.

*Transfers to CSU*

### **CARDIOVASCULAR TECHNOLOGY 205 †** **Clinical Practicum II**

5 units, 15 hours laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the CVTE Core Curriculum (CVTE 110, 111, 112 and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 200 or CVTE 207 and 201 or 202 or 203.

A laboratory course providing clinical practicum with emphasis on the calibration and operation of medical instrumentation used in the Invasive, Noninvasive and Vascular Laboratories in local hospitals and clinics with which the CVT Program is affiliated. The performance of specified diagnostic tests, calculation of hemodynamic data, and professional performance in the clinical environment will be stressed.

*Transfers to CSU*

† This course meets all Title 5 standards for Associate Degree Credit.

**CARDIOVASCULAR TECHNOLOGY****207 †****Invasive Medical Instrumentation I**

2 units, 2 hours lecture

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the Cardiovascular Technology Core Curriculum (CVTE 110, 111, 112, and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 202, 205 and 208.

A course of instruction in the theory, calibration, operation and clinical application of specified diagnostic medical instrumentation with emphasis on the relationship of findings in the medical history to diagnostic test findings, and introduces the student to the application of diagnostic instrumentation in medical research.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****208 †****X-Ray Physics and Cardiovascular Angiography**

2 units, 2 hours lecture, 1 hour laboratory

**Prerequisite:** A "C" grade or higher in all classes in the second semester of the Cardiovascular Technology Core Curriculum (CVTE 110, 111, 112, and 113), and CVTE 114 and 120.

**Corequisite:** Concurrent enrollment in CVTE 202, 205 and 207.

A course providing advanced study in medical electronics and instrumentation which focuses on imaging technologies, utilized in invasive cardiology. Emphasis will be placed upon understanding the x-ray imaging chain, x-ray physics, cardiovascular angiographic projections, analog and digital cine angiographic techniques, fluoroscopy techniques, optical principles, intravascular ultrasound and Doppler techniques. Additional emphasis is placed on data collection, analysis and interpretation of clinical patterns.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****210 †****Medical Instrumentation IV**

3 units, 2 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 200, 205 and 201 or 203.

**Corequisite:** Concurrent enrollment in CVTE 211 or 213 and 215.

A continuation of Cardiovascular Technology 200, Medical Instrumentation III, with emphasis on the theory, calibration, operation and clinical application of specified diagnostic testing. The lecture portion of the course provides an overview of biostatistics as applicable to medical research, continued exploration of the medical literature through reading and writing assignments, and a seminar on cardiovascular disease. The seminar is conducted by physicians and technologists from the three specialties of Cardiovascular Technology and is designed to review state of the art topics in the use of medical instrumentation in diagnostics and research.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****211 †****Diagnostic Procedures II, Noninvasive Cardiology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 200, 201 and 205.

**Corequisite:** Concurrent enrollment in CVTE 210 and 215.

This course is a continuation of Cardiovascular Technology 201, Diagnostic Procedures I, Noninvasive Cardiology. It is an advanced course in the techniques utilized in the diagnosis and serial follow-up of cardiovascular disease with emphasis on pulsed wave, continuous wave and color-flow Doppler techniques, conventional and echocardiographic stress testing and transesophageal echocardiography.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****212 †****Interventional Procedures, Invasive Cardiology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 202, 205, 207 and 208.

**Corequisite:** Concurrent enrollment in CVTE 215, 217 and 218.

This course continues the advanced study of invasive cardiac medical electronics and instrumentation. Emphasis will be placed upon advanced therapeutic procedures, including surgical interventions, angioplasty, stenting, atherectomy, laser, distal protection, valvuloplasty and gene therapy techniques. Mechanical support systems such as the intra aortic balloon pump and other ventricular assist devices will be introduced.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****213 †****Diagnostic Procedures II, Vascular Technology**

4 units, 3 hours lecture, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 200, 203 and 205.

**Corequisite:** Concurrent enrollment in CVTE 210 and 215.

An advanced course of instruction in the specialized techniques of non-invasive testing of the human vascular system and the evaluation of vascular pathophysiology. Lectures will stress performance and analysis of vascular ultrasound scanning, spectral analysis and the interpretation of scanning and non-scanning modalities for vascular testing. Laboratory sessions are conducted in vascular laboratories in local hospitals, with advanced instruction in techniques of duplex scanning of the cerebrovascular, lower-extremity, and abdominal vasculature.

*Transfers to CSU*

† This course meets all Title 5 standards for Associate Degree Credit.

**CARDIOVASCULAR TECHNOLOGY****215 †  
Clinical Practicum III**

2 units, 15 hours laboratory

**Prerequisite:** A "C" grade or higher in CTE 200 or 207, and 201 or 202 or 203, and

**Prerequisite:** Concurrent enrollment in CTE 210 or 217, and 211 or 212 or 213.

A laboratory course providing a continuation of clinical practicum with emphasis on the acquisition and refinement of skills in the calibration and operation of medical instrumentation used in the invasive, noninvasive cardiovascular laboratories in local hospitals and clinics. The performance of specific diagnostic tests, calculation of hemodynamic data, and professional performance in the clinical environment will be stressed. Emphasis will be on consolidating skills acquired in CTE 205 into complete diagnostic studies, including qualitative diagnostic interpretations.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****217 †  
Invasive Medical  
Instrumentation II**

2 units, 3 hours lecture

**Prerequisite:** A "C" or "CR" grade or higher in CTE 202, 205 and 207.

**Prerequisite:** Concurrent enrollment in CTE 212 and 215.

A continuation of Cardiovascular Technology 207 with emphasis on the theory, calibration techniques, and clinical application of specified diagnostic testing. The course provides an overview of biostatistics as applicable to medical research, continued exploration of the medical literature through reading and writing assignments, and a seminar on cardiovascular disease. The seminar is conducted by physicians and technologists from the three specialties Cardiovascular Technology and is designed to review the current topics in clinical instrumentation and research.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****218 †  
Intracardiac  
Electrophysiology**

2 units, 2 hours lecture, 1 hour laboratory

**Prerequisite:** A "C" grade or higher in CVTE 200 or 201 and 205 and 207 or 202 or 203.

**Corequisite:** Concurrent enrollment in CVTE 212, 215 and 217.

This course provides advanced study in medical instrumentation, introducing the topic of intracardiac electrophysiology. The content includes procedures and case studies of intracardiac electrograms, which are used to map the electrical currents within the heart. Computerized analysis of these patterns helps the cardiologist select the most appropriate treatment for chronic arrhythmia including pacemaker technology and implantable cardioverter-defibrillators (ICD). A review of antiarrhythmic drug therapy will also be provided.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****225 †  
Extended Experience in  
Clinical Practicum**

1 unit, 3 hours laboratory

**Prerequisite:** A "C" grade or higher in CVTE 200 or 207 and 201 or 202 or 203, and 205.

A course designed to provide clinical experience in the application of invasive, noninvasive and vascular diagnostic techniques. Students are assigned to local clinical facilities where they participate in the performance of cardiac catheterization procedures, echocardiography and/or vascular duplex studies as determined by clinical specialty.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****230 †  
Invasive Cardiovascular  
Technology Review**

2 units, 2 hours lecture

**Prerequisite:** A "C" grade or higher in CVTE 215 or equivalent.

This course prepares the graduate of any Invasive Cardiovascular Technology Program to sit for the Cardiovascular Credentialing International (CCI) Invasive Registry Examination. The course is intended to serve graduates as well as working professionals that have equivalent work experience wishing to prepare for this credentialing examination. The course content reviews concepts in basic through advanced medical instrumentation, anatomy and physiology, cardiac pathophysiology, cardiovascular pharmacology, angiographic equipment and imaging techniques, hemodynamics and related diagnostic calculations. This course is offered on a Credit/No Credit basis only.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY****240 †  
Anesthesia Technology  
Review**

3 units, 3 hours lecture

This course is designed for anesthesia technicians and/or recent graduates of training programs who intend to sit for the American Society of Anesthesia Technologists and Technicians (ASATT) certification examination. A comprehensive review of anesthesia technology will be provided, from basic anatomy and physiology to pharmacology, instrumentation and troubleshooting of equipment.

*Transfers to CSU*

**CARDIOVASCULAR TECHNOLOGY 299****Selected Topics in  
Cardiovascular Technology**

1-3 units, 3-9 hours

**Prerequisite:** *Varies with topic.*

Selected topics in cardiovascular technology not covered by regular catalog offerings. Course content and unit credit to be determined by the Division of Business and Professional Studies in relation to community/student need(s) and/or available staff. May be offered as a seminar, lecture or laboratory class.

† This course meets all Title 5 standards for Associate Degree Credit.

# Appendix 4

## Course Status

## APPENDIX 4

### 4. Course Status

<b>COURSE AND NUMBER</b>	<b>When was course last updated?</b>	<b>Status of Alignment with Cuyamaca</b>	<b>TIME OFFERED</b>	<b>SEMESTER LAST OFFERED</b>
CVTE 100	4/04	N/A	A	Fall 2007
CVTE 101	4/04	N/A	M	Fall 2007
CVTE 102	4/04	N/A	M, A	Fall 2007
CVTE 103	4/04	N/A	M, A	Fall 2007
CVTE 107	6/98	N/A	A	Spring 2008
CVTE 110	4/04	N/A	A	Spring 2008
CVTE 111	4/04	N/A	M	Spring 2008
CVTE 112	4/04	N/A	M, A	Spring 2008
CVTE 113	4/04	N/A	M, A	Spring 2008
CVTE 114	4/05	N/A	A	Summer 2008
CVTE 120	6/98	N/A	M, A	Summer 2008
CVTE 200	4/02	N/A	A	Fall 2007
CVTE 201	6/98 **	N/A	M, A	Fall 2007
CVTE 202	4/05	N/A	A	Fall 2007
CVTE 203	4/05	N/A	A	Fall 2007
CVTE 205	4/05	N/A	M, A	Fall 2007
CVTE 207	4/02	N/A	A	Fall 2007
CVTE 208	4/02	N/A	A	Fall 2007
CVTE 210	4/02	N/A	A	Spring 2008
CVTE 211	6/98 **	N/A	M, A	Spring 2008
CVTE 212	4/05	N/A	A	Spring 2008
CVTE 213	4/06	N/A	A	Spring 2008
CVTE 215	4/06	N/A	M, A	Spring 2008
CVTE 217	4/02	N/A	A	Spring 2008
CVTE 218	4/02	N/A	A	Spring 2008
CVTE 225	4/05	N/A	M, A	Winter 2008
CVTE 230	4/02	N/A	Online	Spring 2008
CVTE 240	4/06	N/A	Online	Spring 2008

**\*\*NOTE:** CVTE 201 and CVTE 211 have been reviewed and submitted to the Instructional Operations Office in Fall 2006 and are awaiting review/approval by the Curriculum Committee.

# Appendix 5

## Grade Distribution Summary

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 104 ECG THEORY			5	5	1						4	15	0.0	WORTH	PT
COURSE TOTAL													0.0		
CVTE 105 ECG TECHNIQUES			5	5	1						4	15	0.0	WORTH	PT
COURSE TOTAL													0.0		
CVTE 106 ADVANCED ECG THEORY			8	3							2	13	0.0	PASSMAN	XP
COURSE TOTAL													0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I			7	1			1				9	20	20.0	BUCKLEY	
COURSE TOTAL			7	1		1			2	2	9	20	20.0		
CVTE 108 ADVANCED CARDIAC MONITORING			1									1	0.0	PASSMAN	XP
COURSE TOTAL													0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II			17	14	4						1	36	70.0	PASSMAN	
COURSE TOTAL			17	14	4						1	36	70.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II			18	15	2						1	36	144.0	KIRBY	
COURSE TOTAL			18	15	2						1	36	144.0		
CVTE 112 MEDICAL INSTRUMENTATION II			7	9							1	16	112.0	BUCKLEY	
COURSE TOTAL			12	7							1	20	160.0	BUCKLEY	
CVTE 113 LAB PRACTICUM & PROFIC TEST II			19	16							1	36	272.0		
COURSE TOTAL			33	2							1	18	68.0	RIDGWAY	XP
CVTE 198 SUPERVISED TUTORING - CVTE			18	2							1	18	68.0	RIDGWAY	
COURSE TOTAL			16	2							1	1	0.0	KIRBY	
CVTE 210 MED INSTRUMENTATION IV			19	1								20	100.0	KIRBY	XP
COURSE TOTAL			5.0	2	1						18	18	90.0	KIRBY	
			15	2							16	16	80.0	KIRBY	
			14	2							54	54	270.0		
			48	4	2										

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)



BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV														
3820		6.0	20									20	120.0	PASSMAN
COURSE TOTAL			20									20	120.0	
CVTE 212 DIAGNOSTIC PROCEDURES II-INV														
3822		6.0	15	3								18	108.0	BUCKLEY
COURSE TOTAL			15	3								18	108.0	XP
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR														
3823		6.0	9	7								16	96.0	RIDGWAY
COURSE TOTAL			9	7								16	96.0	
CVTE 215 CLINICAL PRACTICUM III														
3825		15.0	51	3								54	810.0	KIRBY
COURSE TOTAL			51	3								54	810.0	XP
CVTE 225 EXTEND EXP CLINICAL PRACTICUM														
3827		3	24								3	27	65.8	PASSMAN
COURSE TOTAL		16.0	24								3	27	65.8	XP
CVTE 299 INVASIVE CARDIO REVIEW COURSE														
3828		1.0							18			18	18.0	BUCKLEY
COURSE TOTAL								18				18	18.0	
SUBJECT TOTAL			261	65	8	1		20			16	371	2129.8	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 100 PHYSICAL PRIN MEDICINE I														
3900		2.0	32	19	1							55	110.0	PASSMAN
COURSE TOTAL			32	19	1						3	55	110.0	
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I														
3902		4.0	27	24	1							55	220.0	KIRBY
COURSE TOTAL			27	24	1						3	55	220.0	
CVTE 102 MEDICAL INSTRUMENTATION I														
3903		8.0	12	6	1							20	160.0	BUCKLEY
3904		8.0	10	10								21	168.0	BUCKLEY
3905		8.0	7	5	1							14	112.0	BUCKLEY
COURSE TOTAL			29	21	2						3	55	440.0	
CVTE 103 LAB PRACTICUM/PROF TESTING I														
3906		4.0	17									18	72.0	RIDGWAY
3907		4.0	14	1								17	64.0	RIDGWAY
3910		4.0	20									20	80.0	RIDGWAY
COURSE TOTAL			51	1							3	55	216.0	
CVTE 104 ECG THEORY														
3912N**		0.0	7	3	2	1						13	0.0	WORTH
COURSE TOTAL			7	3	2	1						13	0.0	
CVTE 105 ECG TECHNIQUES														
3913N**		0.0	8	3	2	1						14	0.0	WORTH
COURSE TOTAL			8	3	2	1						14	0.0	
CVTE 106 ADVANCED ECG THEORY														
3914N**		0.0	8	1	1							10	0.0	PASSMAN
COURSE TOTAL			8	1	1							10	0.0	
CVTE 108 ADVANCED CARDIAC MONITORING														
3915N**		0.0	7	2	1							10	0.0	PASSMAN
COURSE TOTAL			7	2	1							10	0.0	
CVTE 198 SUPERVISED TUTORING - CVTE														
3917**		16.0										2	0.0	KIRBY
COURSE TOTAL												2	0.0	
CVTE 200 MEDICAL INSTRUMENTATION III														
3918		5.0	15	1								16	80.0	KIRBY
3919		5.0	8	3								12	60.0	KIRBY
COURSE TOTAL			23	4							1	28	140.0	
CVTE 201 DIAGNOSTIC PROCED I-NON INV														
3920		6.0	15	1								16	96.0	PASSMAN
COURSE TOTAL			15	1								16	96.0	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 202 DIAGNOSTIC PROCEDURES I-INV														
3921		6.0	9	1								10	60.0	BUCKLEY
COURSE TOTAL			9	1								10	60.0	XP
CVTE 203 DIAGNOSTIC PROCEDURE I-PV							1				1	15	90.0	RIDGWAY
3922		6.0	7	4	1						1	15	90.0	XP
COURSE TOTAL			7	4	1							15	90.0	XP
CVTE 205 CLINICAL PRACTICUM II											1	38	555.0	KIRBY
3924		15.0	37								1	38	555.0	XP
COURSE TOTAL			37									38	555.0	XP
CVTE 207 INVASIVE MED INSTRUMENTATION I												10	20.0	KIRBY
3925		2.0	7	3								10	20.0	XP
COURSE TOTAL			7	3								10	20.0	XP
CVTE 208 XRAY PHYSICS/CARDIO ANGIOGRAPH												10	30.0	BUCKLEY
3926		3.0	10									10	30.0	XP
COURSE TOTAL			10									10	30.0	XP
CVTE 299 INTRO UNIT CLERK/TELEMETRY TEC												10	0.0	PASSMAN
3928N**		0.0	9	1								10	0.0	XP
COURSE TOTAL			9	1								10	0.0	XP
SUBJECT TOTAL			247	78	5	1				1	15	347	1977.0	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 104 ECG THEORY			4	1	4						3	12	0.0	WORTH	PT
3800N** COURSE TOTAL		0.0											0.0		
CVTE 105 ECG TECHNIQUES			4	1	4						3	12	0.0	WORTH	PT
3801N** COURSE TOTAL		0.0											0.0		
CVTE 106 ADVANCED ECG THEORY			8	3							1	12	0.0	PASSMAN	XP
3802N** COURSE TOTAL		0.0											0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I			10	1							5	16	15.0	BUCKLEY	
3803 COURSE TOTAL		1.0									5	16	15.0		
CVTE 108 ADVANCED CARDIAC MONITORING			11								1	12	0.0	PASSMAN	XP
3804N** COURSE TOTAL		0.0											0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II			23	15			1					39	78.0	PASSMAN	
3805 COURSE TOTAL		2.0					1					39	78.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II			21	16	1							39	156.0	KIRBY	
3806 COURSE TOTAL		4.0					1					39	156.0		
CVTE 112 MEDICAL INSTRUMENTATION II			11	4							15	15	120.0	BUCKLEY	XP
3808		8.0									17	17	136.0	BUCKLEY	
3809		8.0		9							6	6	48.0	BUCKLEY	
3810 COURSE TOTAL		8.0		2							38	38	304.0		
CVTE 113 LAB PRACTICUM & PROFIC TEST II			10	3							11	11	44.0	RIDGWAY	
3811		4.0									12	12	48.0	RIDGWAY	
3812		4.0		3							16	16	64.0	RIDGWAY	
3813 COURSE TOTAL		4.0		4							39	39	156.0		
CVTE 198 SUPERVISED TUTORING - CVTE			35	4							3	3	0.0	KIRBY	
3814 **		16									1	1	0.0	KIRBY	
3815 ** COURSE TOTAL		16											0.0		
CVTE 210 MED INSTRUMENTATION IV			13	2	1						14	14	70.0	KIRBY	XP
3816		5.0									7	7	35.0	KIRBY	
3817		5.0		2							10	10	50.0	KIRBY	
3819 COURSE TOTAL		5.0		10											

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 210 MED INSTRUMENTATION IV			27	2	2							31	155.0	
COURSE TOTAL							(CONT"D)							
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV			15									15	90.0	PASSMAN
3820		6.0	15									15	90.0	
COURSE TOTAL			15											
CVTE 212 DIAGNOSTIC PROCEDURES II-INV			7	1								8	48.0	BUCKLEY
3822		6.0	7	1								8	48.0	
COURSE TOTAL			7	1										
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR			8	2								10	60.0	RIDGWAY
3823		6.0	8	2								10	60.0	
COURSE TOTAL			8	2										
CVTE 215 CLINICAL PRACTICUM III			32									32	480.0	KIRBY
3825		15.0	32									32	480.0	
COURSE TOTAL			32											XP
CVTE 225 EXTEND EXP CLINICAL PRACTICUM			17									17	46.6	PASSMAN
3827		3 16.0	17									17	46.6	
COURSE TOTAL			17											XP
CVTE 299 INTRO/UNIT CLERK TELEMETRY TEC			11								1	12	0.0	PASSMAN
3828N**		0.0	11									10	10.0	BUCKLEY
3830		1.0										10	10.0	
COURSE TOTAL									10					XP
SUBJECT TOTAL			218	56	3		2		10		5	294	1598.6	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 100 PHYSICAL PRIN MEDICINE I															
3900		2.0	30	15	3		1				5	54	106.0	PASSMAN	
COURSE TOTAL			30	15	3		1				5	54	106.0		
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I															
3902		4.0	24	15	6		4				5	54	212.0	KIRBY	
COURSE TOTAL			24	15	6		4				5	54	212.0		
CVTE 102 MEDICAL INSTRUMENTATION I															
3903		8.0	10	6							4	20	152.0	BUCKLEY	XP
3904		8.0	8	9			1				1	18	144.0	BUCKLEY	XP
3905		8.0	9	6							5	16	128.0	BUCKLEY	
COURSE TOTAL			27	21			1				10	54	424.0		
CVTE 103 LAB PRACTICUM/PROF TESTING I															
3906		4.0	14				2				2	18	68.0	RIDGWAY	
3907		4.0	18				1				1	20	80.0	RIDGWAY	
3910		4.0	13	1							3	17	64.0	RIDGWAY	
COURSE TOTAL			45	1			3				6	55	212.0		
CVTE 104 ECG THEORY															
3912N**		0.0	10	4							1	15	0.0	WORTH	PT
COURSE TOTAL			10	4							1	15	0.0		
CVTE 105 ECG TECHNIQUES															
3913N**		0.0	10	4							1	15	0.0	WORTH	PT
COURSE TOTAL			10	4							1	15	0.0		
CVTE 106 ADVANCED ECG THEORY															
3914N**		0.0	13	6	3		1					23	0.0	PASSMAN	XP
COURSE TOTAL			13	6	3		1					23	0.0		
CVTE 108 ADVANCED CARDIAC MONITORING															
3915N**		0.0	14	6	2		1					23	0.0	PASSMAN	XP
COURSE TOTAL			14	6	2		1					23	0.0		
CVTE 198 SUPERVISED TUTORING - CVTE															
3916 **		16	0.0								2	2	0.0	KIRBY	
3917 **		16	0.0								4	4	0.0	KIRBY	
COURSE TOTAL			0.0								6	6	0.0		
CVTE 200 MEDICAL INSTRUMENTATION III															
3918		5.0	14	4							1	18	90.0	KIRBY	XP
3919		5.0	7	4							1	12	60.0	KIRBY	
COURSE TOTAL			21	8							2	30	150.0		
CVTE 201 DIAGNOSTIC PROCED I-NON INV															
3920		6.0	18								1	18	108.0	PASSMAN	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 201	DIAGNOSTIC PROCED I-NON INV	18									18	108.0	
COURSE TOTAL		18											
CVTE 202	DIAGNOSTIC PROCEDURES I-INV	13	4							1	18	108.0	BUCKLEY
3921		6.0	4							1	18	108.0	
COURSE TOTAL		13	4										
CVTE 203	DIAGNOSTIC PROCEDURE I-PV	8	3							1	12	72.0	RIDGWAY
3922N		6.0	3							1	12	72.0	
COURSE TOTAL		8	3										XP
CVTE 205	CLINICAL PRACTICUM II	15	46							2	48	720.0	KIRBY
3924		15.0	46							2	48	720.0	
COURSE TOTAL		15	46										XP
CVTE 207	INVASIVE MED INSTRUMENTATION I	7	10							1	18	36.0	KIRBY
3925		2.0	10							1	18	36.0	
COURSE TOTAL		7	10										
CVTE 208	XRAY PHYSICS/CARDIO ANGIOGRAPH	15	2							1	18	54.0	BUCKLEY
3926		3.0	2							1	18	54.0	
COURSE TOTAL		15	2										
SUBJECT TOTAL		254	79	9						28	379	2202.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 104 ECG THEORY			9	3	4	1					4	21	0.0	WORTH	PT
3825N**		0.0											0.0		
COURSE TOTAL															
CVTE 105 ECG TECHNIQUES			9	3	4	1					4	21	0.0	WORTH	PT
3826N**		0.0											0.0		
COURSE TOTAL															
CVTE 106 ADVANCED ECG THEORY			14	3	1						18	18	0.0	PASSMAN	XP
3827N**		0.0											0.0		
COURSE TOTAL															
CVTE 107 INTRO CLINICAL PRACTICUM I			22	2			1				5	30	30.0	BUCKLEY	
3828		1.0					1				5	30	30.0		
COURSE TOTAL															
CVTE 108 ADVANCED CARDIAC MONITORING			14	3							17	17	0.0	PASSMAN	XP
3829N**		0.0											0.0		
COURSE TOTAL															
CVTE 110 PHYSICAL PRIN MEDICINE II			25	18	6		2				51	51	102.0	PASSMAN	
3832		2.0					2				51	51	102.0		
COURSE TOTAL															
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II			29	19	3						51	51	204.0	KIRBY	
3833		4.0											204.0		
COURSE TOTAL															
CVTE 112 MEDICAL INSTRUMENTATION II			11	9							20	20	160.0	BUCKLEY	
3835		8.0									19	19	152.0	BUCKLEY	
3836		8.0		4							12	12	96.0	BUCKLEY	XP
3837		8.0		6							51	51	408.0		
COURSE TOTAL															
CVTE 113 LAB PRACTICUM & PROFIC TEST II			18	1			1				20	20	80.0	RIDGWAY	
3838		4.0									16	16	64.0	RIDGWAY	
3839		4.0					1				15	15	60.0	RIDGWAY	
3840		4.0		1			2				51	51	204.0		
COURSE TOTAL															
CVTE 210 MED INSTRUMENTATION IV			16								16	16	80.0	KIRBY	XP
3850		5.0									12	12	60.0	KIRBY	
3852		5.0		2							28	28	140.0		
COURSE TOTAL															
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV			16								16	16	96.0	PASSMAN	
3854		6.0											96.0		
COURSE TOTAL															

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)



BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	TOTAL W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR		
CVTE 212 DIAGNOSTIC PROCEDURES II-INV																
3855		6.0	8	2								10	60.0	BUCKLEY		XP
COURSE TOTAL			8	2								10	60.0			
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR																
3856		6.0	6	7								13	78.0	RIDGWAY		XP
COURSE TOTAL			6	7								13	78.0			
CVTE 215 CLINICAL PRACTICUM III																
3857		15.0	36		2							38	570.0	KIRBY		XP
COURSE TOTAL			36		2							38	570.0			
CVTE 217 INV MEDICAL INSTRUMENTATION II																
3858		2.0	10									10	20.0	KIRBY		
COURSE TOTAL			10									10	20.0			
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY																
3859		3.0	10									10	30.0	BUCKLEY		
COURSE TOTAL			10									10	30.0			
CVTE 225 EXTEND EXP CLINICAL PRACTICUM																
3861		16.0	22									22	60.3	PASSMAN		XP
COURSE TOTAL			22									22	60.3			
CVTE 230 INVASIVE CARDIO TECH REVIEW																
3862		2.0							19	1		20	40.0	BUCKLEY		
COURSE TOTAL									19	1		20	40.0			
CVTE 299 INTRO/UNIT CLERK TELEMETRY TEC																
3864N**		0.0	17									17	0.0	PASSMAN		
COURSE TOTAL			17									17	0.0			
SUBJECT TOTAL			289	71	11		5		19	1	5	401	2042.3			

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	XP
CVTE 106 ADVANCED ECG THEORY			7	5							4	16	0.0	PASSMAN	XP
COURSE TOTAL													0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I		1.0	22	2							5	29	29.0	BUCKLEY	
COURSE TOTAL			22	2							5	29	29.0		
CVTE 108 ADVANCED CARDIAC MONITORING		0.0	11	1							4	16	0.0	PASSMAN	XP
COURSE TOTAL			11	1							4	16	0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II		2.0	23	20	4							47	94.0	PASSMAN	
COURSE TOTAL			23	20	4							47	94.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II		4.0	17	25	5							47	188.0	KIRBY	
COURSE TOTAL			17	25	5							47	188.0		
CVTE 112 MEDICAL INSTRUMENTATION II		8.0	8	9	1							18	144.0	BUCKLEY	XP
COURSE TOTAL			8	9	1							17	136.0	BUCKLEY	XP
CVTE 113 LAB PRACTICUM & PROFIC TEST II		4.0	13	1								13	52.0	RIDGWAY	
COURSE TOTAL			13	1								19	76.0	RIDGWAY	
CVTE 198 SUPERVISED TUTORING - CVTE		16.0	16	0.0							1	1	0.0	KIRBY	
COURSE TOTAL			16	0.0							2	2	0.0	KIRBY	
CVTE 210 MED INSTRUMENTATION IV		5.0	18	1								18	90.0	KIRBY	XP
COURSE TOTAL			18	1								11	55.0	KIRBY	
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV		6.0	18									18	108.0	PASSMAN	
COURSE TOTAL			18									18	108.0		
CVTE 212 DIAGNOSTIC PROCEDURES II-INV		6.0	12	5								17	102.0	BUCKLEY	
COURSE TOTAL			12	5								17	102.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS.	HRS	A	B	C	D	F	I	CR	NC	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 212 DIAGNOSTIC PROCEDURES II-INV			12	5							17	102.0		
COURSE TOTAL			12	5							17	102.0		
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR			6	5							11	66.0	RIDGWAY	XP
COURSE TOTAL			6	5							11	66.0	RIDGWAY	XP
CVTE 215 CLINICAL PRACTICUM III			46								46	690.0	KIRBY	XP
COURSE TOTAL			46								46	690.0	KIRBY	XP
CVTE 217 INV MEDICAL INSTRUMENTATION II			16	1							17	34.0	KIRBY	
COURSE TOTAL			16	1							17	34.0	KIRBY	
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY			17								17	51.0	BUCKLEY	
COURSE TOTAL			17								17	51.0	BUCKLEY	
CVTE 225 EXTEND EXP CLINICAL PRACTICUM			26								26	71.3	PASSMAN	XP
COURSE TOTAL			26								26	71.3	PASSMAN	XP
CVTE 230 INVASIVE CARDIO TECH REVIEW									16		17	34.0	BUCKLEY	
COURSE TOTAL									16		17	34.0	BUCKLEY	
SUBJECT TOTAL			297	86	10				16		415	2176.3		

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 100 PHYSICAL PRIN MEDICINE I															
3900		2.0	32	15	3		2				3	55	110.0	RIDGWAY	
COURSE TOTAL			32	15	3		2				3	55	110.0	RIDGWAY	
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I															
3902		4.0	26	19	4		3				3	55	220.0	KIRBY	XP
COURSE TOTAL			26	19	4		3				3	55	220.0	KIRBY	
CVTE 102 MEDICAL INSTRUMENTATION I															
3903		8.0	12	4			1				2	19	152.0	BUCKLEY	XP
3904		8.0	11	7	2						1	20	160.0	BUCKLEY	
3905		8.0	12	3							3	16	128.0	BUCKLEY	
COURSE TOTAL			35	14	2		1				3	55	440.0	BUCKLEY	
CVTE 103 LAB PRACTICUM/PROF TESTING I															
3906		4.0	15								1	15	60.0	RIDGWAY	
3907		4.0	15	4							2	20	80.0	RIDGWAY	
3910		4.0	17	1							3	20	80.0	RIDGWAY	
COURSE TOTAL			47	5							3	55	220.0	RIDGWAY	
CVTE 106 ADVANCED ECG THEORY															
3914N**		0.0	7	3							1	11	0.0	MARSHALL	PT
COURSE TOTAL			7	3							1	11	0.0	MARSHALL	
CVTE 108 ADVANCED CARDIAC MONITORING															
3915N**		0.0	9	1								10	0.0	MARSHALL	PT
COURSE TOTAL			9	1								10	0.0	MARSHALL	
CVTE 198 SUPERVISED TUTORING - CVTE															
3916 **		16	0.0								3	3	0.0	KIRBY	
3917 **		16	0.0								3	3	0.0	KIRBY	
COURSE TOTAL											3	3	0.0	KIRBY	
CVTE 200 MEDICAL INSTRUMENTATION III															
3918		5.0	13	2	1							16	80.0	KIRBY	XP
3919		5.0	10	2								12	60.0	KIRBY	
COURSE TOTAL			23	4	1							28	140.0	KIRBY	
CVTE 201 DIAGNOSTIC PROCED I-NON INV															
3920		6.0	13	3								16	96.0	POTTER	PT
COURSE TOTAL			13	3								16	96.0	POTTER	
CVTE 202 DIAGNOSTIC PROCEDURES I-INV															
3921		6.0	12	5	1							18	108.0	BUCKLEY	
COURSE TOTAL			12	5	1							18	108.0	BUCKLEY	
CVTE 203 DIAGNOSTIC PROCEDURE I-PV															
3922		6.0	6	5	1							12	72.0	RIDGWAY	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 203		6	5	1							12	72.0	
COURSE TOTAL						(CONT"D)							
CVTE 205		46									46	690.0	KIRBY
COURSE TOTAL		46									46	690.0	XP
CVTE 207		6	11	1							18	36.0	KIRBY
COURSE TOTAL		6	11	1							18	36.0	
CVTE 208		15	4								19	57.0	BUCKLEY
COURSE TOTAL		15	4								19	57.0	
SUBJECT TOTAL		261	85	13	6					12	377	2189.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS.	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 104 ECG THEORY			4	1							3	8	0.0	MARSHALL	PT
3825N** COURSE TOTAL		0.0											0.0		
CVTE 105 ECG TECHNIQUES			4	1							3	8	0.0	MARSHALL	PT
3826N** COURSE TOTAL		0.0											0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I			20								2	22	22.0	BUCKLEY	
3828 COURSE TOTAL		1.0									2	22	22.0		
CVTE 110 PHYSICAL PRIN MEDICINE II			23	17	8							49	98.0	RIDGWAY	
3832 COURSE TOTAL		2.0					1					49	98.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II			18	23	7							49	196.0	KIRBY	
3833 COURSE TOTAL		4.0					1					49	196.0		
CVTE 112 MEDICAL INSTRUMENTATION II			12	7								19	152.0	BUCKLEY	XP
3835 COURSE TOTAL		8.0										19	152.0	BUCKLEY	
CVTE 113 LAB PRACTICUM & PROFIC TEST II			15	2								16	64.0	RIDGWAY	
3838 COURSE TOTAL		4.0										16	64.0	RIDGWAY	
CVTE 198 SUPERVISED TUTORING - CVTE			47	2								49	196.0		
3844 ** COURSE TOTAL		16.0									3	5	0.0	KIRBY	
CVTE 210 MED INSTRUMENTATION IV			14	2								16	80.0	KIRBY	XP
3850 COURSE TOTAL		5.0										12	60.0	KIRBY	
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV			26	2								28	140.0		
3854 COURSE TOTAL		5.0										16	96.0	POTTER	PT
CVTE 212 DIAGNOSTIC PROCEDURES II-INV			14	2								16	96.0		
3855 COURSE TOTAL		6.0									17	102.0	BUCKLEY		XP

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES  
-----

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 212 DIAGNOSTIC PROCEDURES II-INV COURSE TOTAL			10	7								17	102.0		
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR 3856 COURSE TOTAL		6.0	5	7								12	72.0	RIDGWAY	
CVTE 215 CLINICAL PRACTICUM III 3857 COURSE TOTAL		15.0	44	1								45	675.0	KIRBY	XP
CVTE 217 INV MEDICAL INSTRUMENTATION II 3858 COURSE TOTAL		2.0	14	1	2							18	36.0	KIRBY	
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY 3859 COURSE TOTAL		3.0	13	5								18	54.0	BUCKLEY	XP
CVTE 225 EXTEND EXP CLINICAL PRACTICUM 3861 COURSE TOTAL		16.0	12	1								13	35.7	BUCKLEY	XP
CVTE 230 INVASIVE CARDIO TECH REVIEW 3862 COURSE TOTAL		2.0							18			19	38.0	BUCKLEY	
CVTE 299 ANESTHESIA TECHNOLOGY REVIEW 3863 COURSE TOTAL		8.0							13	9		23	60.3	BUCKLEY	XP
SUBJECT TOTAL			272	91	17		2		31	9	5	427	2213.0		

BUSINESS AND PROFESSIONAL STUDIES  
-----

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 100 PHYSICAL PRIN MEDICINE I															
3900		2.0	26	23			1				1	51	102.0	RIDGWAY	
COURSE TOTAL			26	23			1				1	51	102.0		
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I															
3902		4.0	30	17	1		2				1	51	204.0	KIRBY	XP
COURSE TOTAL			30	17	1		2				1	51	204.0		
CVTE 102 MEDICAL INSTRUMENTATION I															
3903		8.0	13	6							1	19	152.0	BUCKLEY	
3904		8.0	14	4	1						1	20	160.0	BUCKLEY	
3905		8.0	6	5			1				1	12	96.0	BUCKLEY	
COURSE TOTAL			33	15	1		1				1	51	408.0		
CVTE 103 LAB PRACTICUM/PROF TESTING I															
3906		4.0	17								1	17	68.0	RIDGWAY	
3907		4.0	16	1							1	18	72.0	RIDGWAY	
3910		4.0	14	1			1				1	16	64.0	RIDGWAY	
COURSE TOTAL			47	2			1				1	51	204.0		
CVTE 104 ECG THEORY															
3913N**		0.0	4									4	0.0	MARSHALL	PT
COURSE TOTAL			4									4	0.0		
CVTE 105 ECG TECHNIQUES															
3914N**		0.0	4									4	0.0	MARSHALL	PT
COURSE TOTAL			4									4	0.0		
CVTE 198 SUPERVISED TUTORING - CVTE															
3917**		16.0									4	4	0.0	KIRBY	
COURSE TOTAL											4	4	0.0		
CVTE 200 MEDICAL INSTRUMENTATION III															
3918		5.0	11	4							1	16	80.0	KIRBY	XP
3919		5.0	9	1							1	11	55.0	KIRBY	
COURSE TOTAL			20	5							2	27	135.0		
CVTE 201 DIAGNOSTIC PROCED I-NON INV															
3920		6.0	10	5							1	16	96.0	POTTER	XP
COURSE TOTAL			10	5							1	16	96.0		
CVTE 202 DIAGNOS PROCED INVASIVE CARDIO															
3921		6.0	14	4								18	108.0	BUCKLEY	XP
COURSE TOTAL			14	4								18	108.0		
CVTE 203 DIAGNOSTIC PROCEDURE I-PV															
3922		6.0	4	4	2					1	1	12	72.0	RIDGWAY	
COURSE TOTAL			4	4	2					1	1	12	72.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)



BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 205 CLINICAL PRACTICUM II														
3924		15.0	43								2	45	675.0	KIRBY
COURSE TOTAL			43								2	45	675.0	
CVTE 207 INVASIVE MED INSTRUMENTATION I														
3925		2.0	13	5								18	36.0	KIRBY
COURSE TOTAL			13	5								18	36.0	
CVTE 208 XRAY PHYSICS/CARDIO ANGIOGRAPH														
3926		3.0	18									18	54.0	BUCKLEY
COURSE TOTAL			18									18	54.0	XP
CVTE 299 ANESTHESIA TECHNOLOGY REVIEW														
3928		3.0							14	6		20	60.0	BUCKLEY
COURSE TOTAL								14	14	6		20	60.0	XP
SUBJECT TOTAL			258	80	4	5		14	14	7	10	378	2154.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 106	ADVANCED ECG THEORY	4	1			1					6	0.0	MARSHALL	PT
3825N**	COURSE TOTAL	4	1			1					6	0.0	MARSHALL	PT
CVTE 107	INTRO CLINICAL PRACTICUM I	10					1			5	16	16.0	POTTER	XP
3827	COURSE TOTAL	10					1			5	16	16.0	POTTER	XP
CVTE 108	ADVANCED CARDIAC MONITORING	4	1			1					6	0.0	MARSHALL	PT
3828N**	COURSE TOTAL	4	1			1					6	0.0	MARSHALL	PT
CVTE 110	PHYSICAL PRIN MEDICINE II	26	18	6						1	51	102.0	RIDGWAY	
3832	COURSE TOTAL	26	18	6						1	51	102.0	RIDGWAY	
CVTE 111	CARDIOVASCULAR PHYSIOLOGY II	27	23								50	200.0	KIRBY	XP
3833	COURSE TOTAL	27	23								50	200.0	KIRBY	XP
CVTE 112	MEDICAL INSTRUMENTATION II	10	9							1	20	160.0	BUCKLEY	
3835	COURSE TOTAL	10	9							1	20	160.0	BUCKLEY	
CVTE 113	LAB PRACTICUM & PROFIC TEST II	17	1			1					19	76.0	RIDGWAY	
3838	COURSE TOTAL	17	1			1					19	76.0	RIDGWAY	
CVTE 198	SUPERVISED TUTORING - CVTE	16								1	1	0.0	KIRBY	
3844**	COURSE TOTAL	16								1	1	0.0	KIRBY	
CVTE 210	MED INSTRUMENTATION IV	11	3	1							15	75.0	KIRBY	XP
3850	COURSE TOTAL	11	3	1							15	75.0	KIRBY	XP
CVTE 211	DIAGNOSTIC PROCEDUR II-NON INV	11	4								15	90.0	POTTER	
3854	COURSE TOTAL	11	4								15	90.0	POTTER	
CVTE 212	INTERVEN PROCED INVASIV CARDIO	17	1								18	108.0	BUCKLEY	
3855N	COURSE TOTAL	17	1								18	108.0	BUCKLEY	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 213	DIAGNOSTIC PROCED II-VASCULAR													
3856		5	5								11	66.0	RIDGWAY	XP
	COURSE TOTAL	5	5							1	11	66.0		
CVTE 215	CLINICAL PRACTICUM III													
3857		42	1								43	645.0	KIRBY	XP
	COURSE TOTAL	42	1								43	645.0		
CVTE 217	INV MEDICAL INSTRUMENTATION II													
3858		18									18	36.0	KIRBY	
	COURSE TOTAL	18									18	36.0		
CVTE 218	INTRACARDIAC ELECTROPHYSIOLOGY													
3859		18									18	54.0	BLACKBURN	PT
	COURSE TOTAL	18									18	54.0		
CVTE 225	EXTEND EXP CLINICAL PRACTICUM													
3861		15	2								19	46.6	POTTER	XP
	COURSE TOTAL	15	2							2	19	46.6		
CVTE 230	INVASIVE CARDIO TECH REVIEW													
3862		17						17			17	34.0	BUCKLEY	
	COURSE TOTAL	17						17			17	34.0		
CVTE 299	ANESTHESIA TECHNOLOGY REVIEW													
3863		25	14					9	14	2	25	75.0	GRANDONA	PT
	COURSE TOTAL	25	14					9	14	2	25	75.0		
	SUBJECT TOTAL	280	86	7		1	1	26	14	13	428	2209.6		

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 106 ADVANCED ECG THEORY			4	1			1					6	0.0	MARSHALL	PT
3825N**		0.0											0.0		
COURSE TOTAL															
CVTE 107 INTRO CLINICAL PRACTICUM I		1.0	10					1			5	16	16.0	POTTER	XP
3827			10								5	16	16.0		
COURSE TOTAL															
CVTE 108 ADVANCED CARDIAC MONITORING		0.0	4	1			1					6	0.0	MARSHALL	PT
3828N**		0.0											0.0		
COURSE TOTAL															
CVTE 110 PHYSICAL PRIN MEDICINE II		2.0	26	18	6						1	51	102.0	RIDGWAY	
3832			26	18	6						1	51	102.0		
COURSE TOTAL															
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II		4.0	27	23								50	200.0	KIRBY	XP
3833			27	23								50	200.0		
COURSE TOTAL															
CVTE 112 MEDICAL INSTRUMENTATION II		8.0	10	9							1	20	160.0	BUCKLEY	
3835			10	9								20	160.0		
3836		8.0	10	11								21	168.0	BUCKLEY	
3837		8.0	7	3								10	80.0	BUCKLEY	
COURSE TOTAL												51	408.0		
CVTE 113 LAB PRACTICUM & PROFIC TEST II		4.0	17	1			1					19	76.0	RIDGWAY	
3838			17	1								19	76.0		
3839		4.0	16	2							1	19	76.0	RIDGWAY	
3840		4.0	12	1								13	52.0	RIDGWAY	
COURSE TOTAL												51	204.0		
CVTE 198 SUPERVISED TUTORING - CVTE		16.0									1	1	0.0	KIRBY	
3844 **		0.0											0.0		
COURSE TOTAL															
CVTE 210 MED INSTRUMENTATION IV		5.0	11	3	1							15	75.0	KIRBY	XP
3850			11	3	1							15	75.0		
3852		5.0	8	2								10	50.0	KIRBY	
COURSE TOTAL												25	125.0		
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV		6.0	11	4								15	90.0	POTTER	
3854			11	4								15	90.0		
COURSE TOTAL															
CVTE 212 INTERVEN PROCED INVASIV CARDIO		6.0	17	1								18	108.0	BUCKLEY	
3855N			17	1								18	108.0		
COURSE TOTAL															

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 213	DIAGNOSTIC PROCED II-VASCULAR													
3856		5	5								11	66.0	RIDGWAY	XP
	COURSE TOTAL	5	5							1	11	66.0		
CVTE 215	CLINICAL PRACTICUM III													
3857		42	1								43	645.0	KIRBY	XP
	COURSE TOTAL	42	1							1	43	645.0		
CVTE 217	INV MEDICAL INSTRUMENTATION II													
3858		18									18	36.0	KIRBY	
	COURSE TOTAL	18									18	36.0		
CVTE 218	INTRACARDIAC ELECTROPHYSIOLOGY													
3859		18									18	54.0	BLACKBURN	PT
	COURSE TOTAL	18									18	54.0		
CVTE 225	EXTEND EXP CLINICAL PRACTICUM													
3861		15	2								19	46.6	POTTER	XP
	COURSE TOTAL	15	2							2	19	46.6		
CVTE 230	INVASIVE CARDIO TECH REVIEW													
3862		2.0						17			17	34.0	BUCKLEY	
	COURSE TOTAL	2.0						17			17	34.0		
CVTE 299	ANESTHESIA TECHNOLOGY REVIEW													
3863		3.0						9	14	2	25	75.0	GRANDONA	PT
	COURSE TOTAL	3.0						9	14	2	25	75.0		
	SUBJECT TOTAL	280	86	7		1	1	26	14	13	428	2209.6		

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 100 PHYSICAL PRIN MEDICINE I															
3900		2.0	26	23			1				1	51	102.0	RIDGWAY	
COURSE TOTAL			26	23		1					1	51	102.0		
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I															
3902		4.0	30	17	1		2				1	51	204.0	KIRBY	XP
COURSE TOTAL			30	17	1	2					1	51	204.0		
CVTE 102 MEDICAL INSTRUMENTATION I															
3903		8.0	13	6							1	19	152.0	BUCKLEY	
3904		8.0	14	4	1						1	20	160.0	BUCKLEY	
3905		8.0	6	5			1				1	12	96.0	BUCKLEY	
COURSE TOTAL			33	15	1	1					1	51	408.0		
CVTE 103 LAB PRACTICUM/PROF TESTING I															
3906		4.0	17								1	17	68.0	RIDGWAY	
3907		4.0	16	1			1				1	18	72.0	RIDGWAY	
3910		4.0	14	1			1				1	16	64.0	RIDGWAY	
COURSE TOTAL			47	2		1					1	51	204.0		
CVTE 104 ECG THEORY															
3913N**		0.0	4									4	0.0	MARSHALL	PT
COURSE TOTAL			4									4	0.0		
CVTE 105 ECG TECHNIQUES															
3914N**		0.0	4									4	0.0	MARSHALL	PT
COURSE TOTAL			4									4	0.0		
CVTE 198 SUPERVISED TUTORING - CVTE															
3917**		16.0									4	4	0.0	KIRBY	
COURSE TOTAL											4	4	0.0		
CVTE 200 MEDICAL INSTRUMENTATION III															
3918		5.0	11	4							1	16	80.0	KIRBY	XP
3919		5.0	9	1							1	11	55.0	KIRBY	
COURSE TOTAL			20	5							2	27	135.0		
CVTE 201 DIAGNOSTIC PROCED I-NON INV															
3920		6.0	10	5							1	16	96.0	POTTER	XP
COURSE TOTAL			10	5							1	16	96.0		
CVTE 202 DIAGNOS PROCED INVASIVE CARDIO															
3921		6.0	14	4								18	108.0	BUCKLEY	XP
COURSE TOTAL			14	4								18	108.0		
CVTE 203 DIAGNOSTIC PROCEDURE I-PV															
3922		6.0	4	4						1	1	12	72.0	RIDGWAY	
COURSE TOTAL			4	4						1	1	12	72.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 205 CLINICAL PRACTICUM II														
3924		15.0	43								2	45	675.0	KIRBY
COURSE TOTAL			43								2	45	675.0	
CVTE 207 INVASIVE MED INSTRUMENTATION I														
3925		2.0	13	5								18	36.0	KIRBY
COURSE TOTAL			13	5								18	36.0	
CVTE 208 XRAY PHYSICS/CARDIO ANGIOGRAPH														
3926		3.0	18									18	54.0	BUCKLEY
COURSE TOTAL			18									18	54.0	XP
CVTE 299 ANESTHESIA TECHNOLOGY REVIEW														
3928		3.0							14	6		20	60.0	BUCKLEY
COURSE TOTAL								14	14	6		20	60.0	XP
SUBJECT TOTAL			258	80	4	5		14	14	7	10	378	2154.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S. T. WKS.	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 104 ECG THEORY	4	1									3	8	0.0	MARSHALL	PT
COURSE TOTAL													0.0		
CVTE 105 ECG TECHNIQUES	4	1									3	8	0.0	MARSHALL	PT
COURSE TOTAL													0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I	19														
3828	1	1													
COURSE TOTAL															
CVTE 110 PHYSICAL PRIN MEDICINE II	8														
3832	2	2									2	22	22.0	BUCKLEY	
COURSE TOTAL											2	22	22.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II	8														
3833	1	1										49	98.0	RIDGWAY	
COURSE TOTAL												49	98.0		
CVTE 112 MEDICAL INSTRUMENTATION II	7														
3835	4	4										49	196.0	KIRBY	
3836	8	8										49	196.0		
3837	8	8										19	152.0	BUCKLEY	XP
COURSE TOTAL												11	88.0	BUCKLEY	
												49	392.0		
CVTE 113 LAB PRACTICUM & PROFIC TEST II	2														
3838	4	4										16	64.0	RIDGWAY	
3839	4	4										17	68.0	RIDGWAY	
3840	4	4										16	64.0	RIDGWAY	
COURSE TOTAL												49	196.0		
CVTE 198 SUPERVISED TUTORING - CVTE															
3844 **	16	0.0										3	0.0	KIRBY	
3845 **	16	0.0										5	0.0	KIRBY	
COURSE TOTAL													0.0		
CVTE 210 MED INSTRUMENTATION IV	2														
3850	5	5										16	80.0	KIRBY	XP
3852	5	5										12	60.0	KIRBY	
COURSE TOTAL												28	140.0		
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV	2														
3854	6	6										16	96.0	POTTER	PT
COURSE TOTAL												16	96.0		
CVTE 212 DIAGNOSTIC PROCEDURES II-INV	7														
3855	6	6										17	102.0	BUCKLEY	XP

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)



BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 212 DIAGNOSTIC PROCEDURES II-INV			10	7								17	102.0	
COURSE TOTAL							(CONT"D)							
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR			5	7								12	72.0	RIDGWAY
COURSE TOTAL		6.0	5	7								12	72.0	
CVTE 215 CLINICAL PRACTICUM III			44	1								45	675.0	KIRBY
COURSE TOTAL		15.0	44	1								45	675.0	XP
CVTE 217 INV MEDICAL INSTRUMENTATION II			14	1	2						1	18	36.0	KIRBY
COURSE TOTAL		2.0	14	1	2						1	18	36.0	
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY			13	5								18	54.0	BUCKLEY
COURSE TOTAL		3.0	13	5								18	54.0	XP
CVTE 225 EXTEND EXP CLINICAL PRACTICUM			12	1								13	35.7	BUCKLEY
COURSE TOTAL		3.16.0	12	1								13	35.7	XP
CVTE 230 INVASIVE CARDIO TECH REVIEW			12	1								19	38.0	BUCKLEY
COURSE TOTAL		2.0	12	1					18		1	19	38.0	
CVTE 299 ANESTHESIA TECHNOLOGY REVIEW			8	6					13	9	2	24	60.3	BUCKLEY
COURSE TOTAL		6.0	8	6					13	9	2	24	60.3	XP
SUBJECT TOTAL			271	91	17	3			31	9	6	428	2213.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 100 PHYSICAL PRIN MEDICINE I															
3900		2.0	32	15	3		2				3	55	110.0	RIDGWAY	
COURSE TOTAL			32	15	3		2				3	55	110.0		
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I															
3902		4.0	26	19	4		3				3	55	220.0	KIRBY	XP
COURSE TOTAL			26	19	4		3				3	55	220.0		
CVTE 102 MEDICAL INSTRUMENTATION I															
3903		8.0	12	4			1				2	19	152.0	BUCKLEY	XP
3904		8.0	11	7	2						2	20	160.0	BUCKLEY	
3905		8.0	12	3							1	16	128.0	BUCKLEY	
COURSE TOTAL			35	14	2		1				3	55	440.0		
CVTE 103 LAB PRACTICUM/PROF TESTING I															
3906		4.0	15								1	15	60.0	RIDGWAY	
3907		4.0	15	4							2	20	80.0	RIDGWAY	
3910		4.0	17	1							3	55	220.0	RIDGWAY	
COURSE TOTAL			47	5							3	55	220.0		
CVTE 106 ADVANCED ECG THEORY															
3914N**		0.0	7	3							1	11	0.0	MARSHALL	PT
COURSE TOTAL			7	3							1	11	0.0		
CVTE 108 ADVANCED CARDIAC MONITORING															
3915N**		0.0	9	1								10	0.0	MARSHALL	PT
COURSE TOTAL			9	1								10	0.0		
CVTE 198 SUPERVISED TUTORING - CVTE															
3916 **		16	0.0								3	3	0.0	KIRBY	
3917 **		16	0.0								3	3	0.0	KIRBY	
COURSE TOTAL											3	3	0.0		
CVTE 200 MEDICAL INSTRUMENTATION III															
3918		5.0	13	2	1							16	80.0	KIRBY	XP
3919		5.0	10	2								12	60.0	KIRBY	
COURSE TOTAL			23	4	1							28	140.0		
CVTE 201 DIAGNOSTIC PROCED I-NON INV															
3920		6.0	13	3								16	96.0	POTTER	PT
COURSE TOTAL			13	3								16	96.0		
CVTE 202 DIAGNOSTIC PROCEDURES I-INV															
3921		6.0	12	5	1							18	108.0	BUCKLEY	
COURSE TOTAL			12	5	1							18	108.0		
CVTE 203 DIAGNOSTIC PROCEDURE I-PV															
3922		6.0	6	5	1							12	72.0	RIDGWAY	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL	TOTAL WSCH	INSTRUCTOR
											ENR		
CVTE 203		6	5								12	72.0	
COURSE TOTAL				1		(CONT'D)							
CVTE 205		46									46	690.0	KIRBY
COURSE TOTAL		46									46	690.0	KIRBY
CVTE 207		6	11	1							18	36.0	KIRBY
COURSE TOTAL		6	11	1							18	36.0	KIRBY
CVTE 208		15	4								19	57.0	BUCKLEY
COURSE TOTAL		15	4								19	57.0	BUCKLEY
SUBJECT TOTAL		261	85	13		6				12	377	2189.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	XP
CVTE 106 ADVANCED ECG THEORY			7	5							4	16	0.0	PASSMAN	XP
3827N** COURSE TOTAL		0.0											0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I		1.0	22	2							5	29	29.0	BUCKLEY	
3828 COURSE TOTAL			22	2							5	29	29.0		
CVTE 108 ADVANCED CARDIAC MONITORING		0.0	11	1							4	16	0.0	PASSMAN	XP
3829N** COURSE TOTAL			11	1							4	16	0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II		2.0	23	20	4						47	47	94.0	PASSMAN	
3832 COURSE TOTAL			23	20	4						47	47	94.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II		4.0	17	25	5						47	47	188.0	KIRBY	
3833 COURSE TOTAL			17	25	5						47	47	188.0		
CVTE 112 MEDICAL INSTRUMENTATION II		8.0	8	9	1						18	18	144.0	BUCKLEY	XP
3835 COURSE TOTAL			8	9	1						17	17	136.0	BUCKLEY	XP
CVTE 113 LAB PRACTICUM & PROFIC TEST II		4.0	13	2	1						15	15	60.0	RIDGWAY	
3838 COURSE TOTAL			13	2	1						15	15	60.0	RIDGWAY	XP
CVTE 198 SUPERVISED TUTORING - CVTE		0.0									1	1	0.0	KIRBY	
3844 ** COURSE TOTAL											2	2	0.0	KIRBY	
CVTE 210 MED INSTRUMENTATION IV		5.0	18	1							18	18	90.0	KIRBY	XP
3850 COURSE TOTAL			18	1							11	11	55.0	KIRBY	
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV		6.0	18	18							18	18	108.0	PASSMAN	
3854 COURSE TOTAL			18	18							18	18	108.0		
CVTE 212 DIAGNOSTIC PROCEDURES II-INV		6.0	12	5							17	17	102.0	BUCKLEY	
3855 COURSE TOTAL			12	5							17	17	102.0		

\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS.	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 212 DIAGNOSTIC PROCEDURES II-INV	12	5										17	102.0	
COURSE TOTAL														
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR	6	5										11	66.0	RIDGWAY
3856	6	5										11	66.0	XP
COURSE TOTAL														
CVTE 215 CLINICAL PRACTICUM III	46											46	690.0	KIRBY
3857	15.0											46	690.0	XP
COURSE TOTAL														
CVTE 217 INV MEDICAL INSTRUMENTATION II	16	1										17	34.0	KIRBY
3858	2.0	1										17	34.0	
COURSE TOTAL														
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY	17											17	51.0	BUCKLEY
3859	3.0	17										17	51.0	
COURSE TOTAL														
CVTE 225 EXTEND EXP CLINICAL PRACTICUM	26											26	71.3	PASSMAN
3861	3	16.0										26	71.3	
COURSE TOTAL														
CVTE 230 INVASIVE CARDIO TECH REVIEW	2	10										17	34.0	BUCKLEY
3862	2.0	10										17	34.0	
COURSE TOTAL														
SUBJECT TOTAL	297	86	10						16	16	6	415	2176.3	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 100	PHYSICAL PRIN MEDICINE I												
3900	2.0	29	16	3		1				5	54	106.0	PASSMAN
	COURSE TOTAL	29	16	3		1				5	54	106.0	
CVTE 101	CARDIOVASCULAR PHYSIOLOGY I												
3902	4.0	24	15	6		4				5	54	212.0	KIRBY
	COURSE TOTAL	24	15	6		4				5	54	212.0	
CVTE 102	MEDICAL INSTRUMENTATION I												
3903	8.0	10	6							4	20	152.0	BUCKLEY
3904	8.0	8	9			1				1	18	144.0	BUCKLEY
3905	8.0	9	6			1				1	16	128.0	BUCKLEY
	COURSE TOTAL	27	21			1				5	54	424.0	
CVTE 103	LAB PRACTICUM/PROF TESTING I												
3906	4.0	14				2				2	18	68.0	RIDGWAY
3907	4.0	18				1				1	20	80.0	RIDGWAY
3910	4.0	13	1							3	17	64.0	RIDGWAY
	COURSE TOTAL	45	1			3				6	55	212.0	
CVTE 104	ECG THEORY												
3912N**	0.0	10	4			2				1	15	0.0	WORTH
	COURSE TOTAL	10	4			2				1	15	0.0	
CVTE 105	ECG TECHNIQUES												
3913N**	0.0	10	4							1	15	0.0	WORTH
	COURSE TOTAL	10	4							1	15	0.0	
CVTE 106	ADVANCED ECG THEORY												
3914N**	0.0	11	5	2		1	3				22	0.0	PASSMAN
	COURSE TOTAL	11	5	2		1	3				22	0.0	
CVTE 108	ADVANCED CARDIAC MONITORING												
3915N**	0.0	12	5	1		1	3				22	0.0	PASSMAN
	COURSE TOTAL	12	5	1		1	3				22	0.0	
CVTE 198	SUPERVISED TUTORING - CVTE												
3916 **	16	0.0								2	2	0.0	KIRBY
3917 **	16	0.0								4	4	0.0	KIRBY
	COURSE TOTAL	0.0								2	2	0.0	
CVTE 200	MEDICAL INSTRUMENTATION III												
3918	5.0	14	4							1	18	90.0	KIRBY
3919	5.0	7	4							1	12	60.0	KIRBY
	COURSE TOTAL	21	8							1	30	150.0	
CVTE 201	DIAGNOSTIC PROCED I-NON INV												
3920	6.0	18								1	18	108.0	PASSMAN

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 201	DIAGNOSTIC PROCED I-NON INV	18									18	108.0	
	COURSE TOTAL												
CVTE 202	DIAGNOSTIC PROCEDURES I-INV	13	4							1	18	108.0	BUCKLEY
3921		6.0	4							1	18	108.0	
	COURSE TOTAL												
CVTE 203	DIAGNOSTIC PROCEDURE I-PV	8	3							1	12	72.0	RIDGWAY
3922N		6.0	3							1	12	72.0	
	COURSE TOTAL												
CVTE 205	CLINICAL PRACTICUM II	15.0	46							2	48	720.0	KIRBY
3924		15.0	46							2	48	720.0	
	COURSE TOTAL												
CVTE 207	INVASIVE MED INSTRUMENTATION I	7	10							1	18	36.0	KIRBY
3925		2.0	10							1	18	36.0	
	COURSE TOTAL												
CVTE 208	XRAY PHYSICS/CARDIO ANGIOGRAPH	15	2							1	18	54.0	BUCKLEY
3926		3.0	2							1	18	54.0	
	COURSE TOTAL												
	SUBJECT TOTAL	253	80	9						28	379	2202.0	

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 104 ECG THEORY		9	3	4	1						4	21	0.0	WORTH	PT
3825N** COURSE TOTAL	0.0												0.0		
CVTE 105 ECG TECHNIQUES		9	3	4	1						4	21	0.0	WORTH	PT
3826N** COURSE TOTAL	0.0												0.0		
CVTE 106 ADVANCED ECG THEORY		14	3	1								18	0.0	PASSMAN	XP
3827N** COURSE TOTAL	0.0												0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I		21	2			2					5	30	30.0	BUCKLEY	
3828 COURSE TOTAL	1.0										5	30	30.0		
CVTE 108 ADVANCED CARDIAC MONITORING		14	3									17	0.0	PASSMAN	XP
3829N** COURSE TOTAL	0.0												0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II		25	18	6		2						51	102.0	PASSMAN	
3832 COURSE TOTAL	2.0											51	102.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II		29	19	3								51	204.0	KIRBY	
3833 COURSE TOTAL	4.0											51	204.0		
CVTE 112 MEDICAL INSTRUMENTATION II		11	9								20	20	160.0	BUCKLEY	
3835	8.0										19	19	152.0	BUCKLEY	
3836	8.0										12	12	96.0	BUCKLEY	
3837 COURSE TOTAL	8.0										51	51	408.0		XP
CVTE 113 LAB PRACTICUM & PROFIC TEST II		18	1			1						20	80.0	RIDGWAY	
3838	4.0											16	64.0	RIDGWAY	
3839	4.0											15	60.0	RIDGWAY	
3840 COURSE TOTAL	4.0											51	204.0		
CVTE 210 MED INSTRUMENTATION IV		16	2									16	80.0	KIRBY	XP
3850	5.0											12	60.0	KIRBY	
3852 COURSE TOTAL	5.0											28	140.0		
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV		16	2									16	96.0	PASSMAN	
3854 COURSE TOTAL	6.0											16	96.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)



BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 212 DIAGNOSTIC PROCEDURES II-INV															
3855		6.0	8	2								10	60.0	BUCKLEY	XP
COURSE TOTAL			8	2								10	60.0		
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR															
3856		6.0	6	7								13	78.0	RIDGWAY	XP
COURSE TOTAL			6	7								13	78.0		
CVTE 215 CLINICAL PRACTICUM III															
3857		15.0	36		2							38	570.0	KIRBY	XP
COURSE TOTAL			36		2							38	570.0		
CVTE 217 INV MEDICAL INSTRUMENTATION II															
3858		2.0	10									10	20.0	KIRBY	
COURSE TOTAL			10									10	20.0		
CVTE 218 INTRACARDIAC ELECTROPHYSIOLOGY															
3859		3.0	10									10	30.0	BUCKLEY	
COURSE TOTAL			10									10	30.0		
CVTE 225 EXTEND EXP CLINICAL PRACTICUM															
3861		16.0	22									22	60.3	PASSMAN	XP
COURSE TOTAL			22									22	60.3		
CVTE 230 INVASIVE CARDIO TECH REVIEW															
3862		2.0							19	1		20	40.0	BUCKLEY	
COURSE TOTAL								19	1			20	40.0		
CVTE 299 INTRO/UNIT CLERK TELEMETRY TEC															
3864N**		0.0	17									17	0.0	PASSMAN	
COURSE TOTAL			17									17	0.0		
SUBJECT TOTAL			288	71	11	6	19	1	1	5	401	2042.3			

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	XP	
CVTE 100 PHYSICAL PRIN MEDICINE I																
3900		2.0	32	19	1						3	55	110.0	PASSMAN		
COURSE TOTAL			32	19	1						3	55	110.0			
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I																
3902		4.0	27	24	1						3	55	220.0	KIRBY		XP
COURSE TOTAL			27	24	1						3	55	220.0			
CVTE 102 MEDICAL INSTRUMENTATION I																
3903		8.0	12	6	1						1	20	160.0	BUCKLEY		XP
3904		8.0	10	10							1	21	168.0	BUCKLEY		XP
3905		8.0	7	5	1						1	14	112.0	BUCKLEY		XP
COURSE TOTAL			29	21	2						3	55	440.0			
CVTE 103 LAB PRACTICUM/PROF TESTING I																
3906		4.0	17								1	18	72.0	RIDGWAY		PT
3907		4.0	14	1							2	17	64.0	RIDGWAY		PT
3910		4.0	20								3	20	80.0	RIDGWAY		PT
COURSE TOTAL			51	1							3	55	216.0			
CVTE 104 ECG THEORY																
3912N**		0.0	7	3	2	1						13	0.0	WORTH		PT
COURSE TOTAL			7	3	2	1						13	0.0			
CVTE 105 ECG TECHNIQUES																
3913N**		0.0	8	3	2	1						14	0.0	WORTH		PT
COURSE TOTAL			8	3	2	1						14	0.0			
CVTE 106 ADVANCED ECG THEORY																
3914N**		0.0	8	1	1							10	0.0	PASSMAN		XP
COURSE TOTAL			8	1	1							10	0.0			
CVTE 108 ADVANCED CARDIAC MONITORING																
3915N**		0.0	7	2	1							10	0.0	PASSMAN		XP
COURSE TOTAL			7	2	1							10	0.0			
CVTE 198 SUPERVISED TUTORING - CVTE																
3917**		16.0									2	2	0.0	KIRBY		XP
COURSE TOTAL											2	2	0.0			
CVTE 200 MEDICAL INSTRUMENTATION III																
3918		5.0	15	1							1	16	80.0	KIRBY		XP
3919		5.0	8	3							1	12	60.0	KIRBY		XP
COURSE TOTAL			23	4							1	28	140.0			
CVTE 201 DIAGNOSTIC PROCED I-NON INV																
3920		6.0	15	1							1	16	96.0	PASSMAN		XP
COURSE TOTAL			15	1							1	16	96.0			

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 202 DIAGNOSTIC PROCEDURES I-INV															
3921		6.0	9	1								10	60.0	BUCKLEY	XP
COURSE TOTAL			9	1								10	60.0		
CVTE 203 DIAGNOSTIC PROCEDURE I-PV							1					15	90.0	RIDGWAY	XP
3922		6.0	7	4	1							15	90.0		
COURSE TOTAL			7	4	1							15	90.0		
CVTE 205 CLINICAL PRACTICUM II												38	555.0	KIRBY	XP
3924		15.0	37									38	555.0		
COURSE TOTAL			37									38	555.0		
CVTE 207 INVASIVE MED INSTRUMENTATION I												10	20.0	KIRBY	
3925		2.0	7	3								10	20.0		
COURSE TOTAL			7	3								10	20.0		
CVTE 208 XRAY PHYSICS/CARDIO ANGIOGRAPH												10	30.0	BUCKLEY	
3926		3.0	10									10	30.0		
COURSE TOTAL			10									10	30.0		
CVTE 299 :INTRO UNIT CLERK/TELEMETRY TEC												10	0.0	PASSMAN	
3928N**		0.0	9									10	0.0		
COURSE TOTAL			9									10	0.0		
SUBJECT TOTAL			247	78	5	1				1	15	347	1977.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	
CVTE 104 ECG THEORY			4	1	4						3	12	0.0	WORTH	PT
3800N** COURSE TOTAL		0.0											0.0		
CVTE 105 ECG TECHNIQUES			4	1	4						3	12	0.0	WORTH	PT
3801N** COURSE TOTAL		0.0											0.0		
CVTE 106 ADVANCED ECG THEORY			8	3							1	12	0.0	PASSMAN	XP
3802N** COURSE TOTAL		0.0											0.0		
CVTE 107 INTRO CLINICAL PRACTICUM I			10	1							5	16	15.0	BUCKLEY	
3803 COURSE TOTAL		1.0					1				5	16	15.0		
CVTE 108 ADVANCED CARDIAC MONITORING			11								1	12	0.0	PASSMAN	XP
3804N** COURSE TOTAL		0.0											0.0		
CVTE 110 PHYSICAL PRIN MEDICINE II			23	15							39	39	78.0	PASSMAN	
3805 COURSE TOTAL		2.0					1				39	39	78.0		
CVTE 111 CARDIOVASCULAR PHYSIOLOGY II			21	16	1						39	39	156.0	KIRBY	
3806 COURSE TOTAL		4.0					1				39	39	156.0		
CVTE 112 MEDICAL INSTRUMENTATION II			11	4							15	15	120.0	BUCKLEY	XP
3808		8.0									17	17	136.0	BUCKLEY	
3809		8.0									6	6	48.0	BUCKLEY	
3810 COURSE TOTAL		8.0									38	38	304.0		
CVTE 113 LAB PRACTICUM & PROFIC TEST II			10	1							11	11	44.0	RIDGWAY	
3811		4.0									12	12	48.0	RIDGWAY	
3812		4.0									16	16	64.0	RIDGWAY	
3813 COURSE TOTAL		4.0									39	39	156.0		
CVTE 198 SUPERVISED TUTORING - CVTE			16								3	3	0.0	KIRBY	
3814**		16									1	1	0.0	KIRBY	
3815** COURSE TOTAL		16											0.0		
CVTE 210 MED INSTRUMENTATION IV			13	2	1						14	14	70.0	KIRBY	XP
3816		5.0									7	7	35.0	KIRBY	
3817		5.0									10	10	50.0	KIRBY	
3819 COURSE TOTAL		5.0													

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 210 MED INSTRUMENTATION IV			27	2	2							31	155.0	
COURSE TOTAL							(CONT'D)							
CVTE 211 DIAGNOSTIC PROCEDUR II-NON INV			15									15	90.0	PASSMAN
3820		6.0	15									15	90.0	
COURSE TOTAL														
CVTE 212 DIAGNOSTIC PROCEDURES II-INV			7	1								8	48.0	BUCKLEY
3822		6.0	7	1								8	48.0	
COURSE TOTAL														
CVTE 213 DIAGNOSTIC PROCED II-VASCULAR			8	2								10	60.0	RIDGWAY
3823		6.0	8	2								10	60.0	
COURSE TOTAL														
CVTE 215 CLINICAL PRACTICUM III			32									32	480.0	KIRBY
3825		15.0	32									32	480.0	
COURSE TOTAL														XP
CVTE 225 EXTEND EXP CLINICAL PRACTICUM			17									17	46.6	PASSMAN
3827		3	16.0									17	46.6	
COURSE TOTAL														XP
CVTE 299 INTRO/UNIT CLERK TELEMETRY TEC			11								1	12	0.0	PASSMAN
3828N**		0.0	11									10	10.0	BUCKLEY
3830		1.0										10	10.0	
COURSE TOTAL									10					XP
SUBJECT TOTAL			218	56	3		2		10		5	294	1598.6	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR	PT
CVTE 100 PHYSICAL PRIN MEDICINE I														
3900	2.0	24	15	1		1				2	43	86.0	PASSMAN	
COURSE TOTAL		24	15	1		1				2	43	86.0		
CVTE 101 CARDIOVASCULAR PHYSIOLOGY I														
3902	4.0	18	16	4		3				2	43	172.0	KIRBY	XP
COURSE TOTAL		18	16	4		3				2	43	172.0		
CVTE 102 MEDICAL INSTRUMENTATION I														
3903	8.0	9	8							1	18	144.0	BUCKLEY	XP
3904	8.0	11	6	1						1	19	152.0	BUCKLEY	
3905	8.0	5	1							2	6	48.0	BUCKLEY	
COURSE TOTAL		25	15	1						2	43	344.0		
CVTE 103 LAB PRACTICUM/PROF TESTING I														
3906	4.0	9	1							1	11	44.0	RIDGWAY	
3907	4.0	14	1							1	16	64.0	RIDGWAY	
3910	4.0	16								2	16	64.0	RIDGWAY	
COURSE TOTAL		39	2							2	43	172.0		
CVTE 104 ECG THEORY														
3912N**	0.0	7	6							5	18	0.0	WORTH	PT
COURSE TOTAL										5	18	0.0		
CVTE 105 ECG TECHNIQUES														
3913N**	0.0	7	6			2				3	18	0.0	WORTH	PT
COURSE TOTAL						2				3	18	0.0		
CVTE 106 ADVANCED ECG THEORY														
3914N**	0.0	6	3							1	10	0.0	PASSMAN	XP
COURSE TOTAL										1	10	0.0		
CVTE 108 ADVANCED CARDIAC MONITORING														
3915N**	0.0	6	3							1	10	0.0	PASSMAN	
COURSE TOTAL										1	10	0.0		
CVTE 198 SUPERVISED TUTORING - CVTE														
3916 **	16	0.0								1	1	0.0	KIRBY	
3925 **	16	0.0								3	3	0.0	KIRBY	
COURSE TOTAL										1	1	0.0		
CVTE 200 MEDICAL INSTRUMENTATION III														
3917	5.0	3	4							1	7	35.0	KIRBY	
3918	5.0	14								1	15	75.0	KIRBY	
3919	5.0	10								1	10	50.0	KIRBY	
COURSE TOTAL		27	4							1	32	160.0		

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

BUSINESS AND PROFESSIONAL STUDIES

BUSINESS AND PROFESSIONAL STUDIES

	S.T. WKS	HRS	A	B	C	D	F	I	CR	NC	W	TOTAL ENR	TOTAL WSCH	INSTRUCTOR
CVTE 201 DIAGNOSTIC PROCED I-NON INV														
3920		6.0	12	3				1			1	17	102.0	PASSMAN
COURSE TOTAL			12	3				1			1	17	102.0	XP
CVTE 202 DIAGNOSTIC PROCEDURES I-INV														
3921		6.0	5	2								7	42.0	BUCKLEY
COURSE TOTAL			5	2								7	42.0	
CVTE 203 DIAGNOSTIC PROCEDURE I-PV														
3922		6.0	3	6								10	60.0	RIDGWAY
COURSE TOTAL			3	6								10	60.0	XP
CVTE 205 CLINICAL PRACTICUM II														
3924		15.0	31									32	480.0	KIRBY
COURSE TOTAL			31									32	480.0	XP
CVTE 299 INTRO UNIT CLERK/TELEMETRY TEC														
3928N**		0.0	9									10	0.0	PASSMAN
COURSE TOTAL			9									10	0.0	
SUBJECT TOTAL			184	63	7		4	1			11	270	1618.0	

\*\* CLASS NOT VALID FOR A.D.A -- NOTED ONLY (NOT INCLUDED IN TOTALS)

# Appendix 6

## Results of Student Survey



**Grossmont College Cardiovascular Technology Student Survey**  
**First Year Students**  
**Fall 2007**  
**N=39**

1. How many courses have you taken in this department at Grossmont College? (including this current course and any repeated courses)

	Frequency	Percent
Two	1	2.6
More than three	38	97.4
<b>Total</b>	<b>39</b>	<b>100.0</b>

2. Is your major in this department?

	Frequency	Percent
Yes	38	97.4
No	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>

3. How did you find out about this class? (mark all that apply)

	Frequency	Percent
Friend or family member	26	74.3
Grossmont webpage (online)	10	28.6
Work referral	6	17.1
Class schedule / College catalog	4	11.4
Grossmont College Instructor	3	8.6
Grossmont College Counselor	2	5.7
Public media (radio, TV, newspaper, ad)	1	2.9

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 35).

4. What is your reason(s) for taking courses in this department? (mark all that apply)

	Frequency	Percent
Required for major	20	55.6
Improve job skills	16	44.4
General interest	11	30.6
Would like to major in a related field	10	27.8
General education requirement	2	5.6
Prerequisite	2	5.6
Other	4	11.1

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 36).

**4t. What is your reason(s) for taking this class? (other)**

	Frequency
Career Goals	1
Career Training	1
Its of my interest	1
Take care of people	1
<b>Total</b>	<b>39</b>

**5. Which of the following helped you learn the course material best? (mark all that apply)**

	Frequency	Percent
Lecture	34	89.5
Handouts	33	86.8
Study groups	26	68.4
Quizzes	16	42.1
Homework	16	42.1
Slides, transparencies	16	42.1
Class discussion	13	34.2
Videos/DVDs	13	34.2
Computer lab	12	31.6
Textbook	12	31.6
Instructor /Class notes	12	31.6
Group work in class	9	23.7
Instructor website	7	18.4
Meeting(s) with instructor	4	10.5
Tutoring	4	10.5
Online discussion boards	1	2.6
Other	1	2.6

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,38)

**5t. Which of the following helped you learn the course material best? (other)**

	Frequency
Lab	1

**6a. Please indicate your level of agreement with the following statements:  
The classrooms for this program are clean and in good repair.**

	Frequency	Percent
Strongly agree	11	28.2
Agree	23	59.0
Neutral	2	5.1
Disagree	3	7.7
<b>Total</b>	<b>39</b>	<b>100.0</b>

**6b. Please indicate your level of agreement with the following statements: The classroom equipment is maintained and up-to-date.**

	Frequency	Percent
Strongly agree	4	10.3
Agree	20	51.3
Neutral	6	15.4
Disagree	9	23.1
<b>Total</b>	<b>39</b>	<b>100.0</b>

**6c. Please indicate your level of agreement with the following statements: The computer technology used in the classroom is up-to-date.**

	Frequency	Percent
Strongly agree	9	23.1
Agree	17	43.6
Neutral	9	23.1
Disagree	3	7.7
Don't Know	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>

**6d. Please indicate your level of agreement with the following statements: The textbooks for this class were available in the bookstore when needed.**

	Frequency	Percent
Strongly agree	5	12.8
Agree	21	53.8
Neutral	9	23.1
Disagree	4	10.3
<b>Total</b>	<b>39</b>	<b>100.0</b>

**7. How satisfied are you with the availability of courses in this department?**

	Frequency	Percent
Very satisfied	23	59.0
Satisfied	13	33.3
Neutral	2	5.1
Very dissatisfied	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>

**8a. What would be your preferred start time(s) for courses to be offered? : Weekdays**

	Frequency	Percent
Early Morning (7am-8am)	29	80.6
Morning/Afternoon (9am-3pm)	11	30.6
Evening: Monday-Thursday (4pm-9pm)	4	11.1
Evening: Friday (4pm- 9pm)	2	5.6
No preference	3	8.3

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,36)

**8b. What would be your preferred start time(s) for courses to be offered? : Saturdays**

	Frequency	Percent
Early Morning (7am-8am)	3	8.3
Morning/Afternoon (9am-3pm)	5	13.9
Evening (4pm-9pm)	2	5.6
No preference	6	16.7
Would not attend on Saturdays	19	52.8

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,36)

**8c. What would be your preferred start time(s) for courses to be offered? : Sundays (if offered)**

	Frequency	Percent
Early Morning (7am-8am)	2	6.1
Morning/Afternoon (9am-3pm)	1	3.0
Evening: Monday-Thursday (4pm-9pm)	2	6.1
No preference	5	15.2
Would not attend on Sundays	24	72.7

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,33)

**9a. Please indicate how often you use each of the following campus resources: Assessment & Testing Center**

	Frequency	Percent
Often: 2-4 times per week	4	12.9
Sometimes: once per week	3	9.7
Rarely: 1-2 times per semester	11	35.5
Never	13	41.9
<b>Total</b>	<b>31</b>	<b>100.0</b>
No Response	3	
N/A	5	
Total	39	

9b. Please indicate how often you use each of the following campus resources: Career Center

	Frequency	Percent
Sometimes: once per week	1	3.0
Rarely: 1-2 times per semester	9	27.3
Never	23	69.7
<b>Total</b>	<b>33</b>	<b>100.0</b>
No Response	2	
N/A	4	
Total	39	

9c. Please indicate how often you use each of the following campus resources: Counseling Office

	Frequency	Percent
Sometimes: once per week	2	5.9
Rarely: 1-2 times per semester	26	76.5
Never	6	17.6
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	3	
N/A	2	
Total	39	

9d. Please indicate how often you use each of the following campus resources: English Writing Center

	Frequency	Percent
Sometimes: once per week	2	6.7
Rarely: 1-2 times per semester	5	16.7
Never	23	76.7
<b>Total</b>	<b>30</b>	<b>100.0</b>
No Response	3	
N/A	6	
Total	39	

9e. Please indicate how often you use each of the following campus resources: English Reading Center

	Frequency	Percent
Rarely: 1-2 times per semester	4	14.3
Never	24	85.7
<b>Total</b>	<b>28</b>	<b>100.0</b>
No Response	5	
N/A	6	
Total	39	

**9f. Please indicate how often you use each of the following campus resources: Health Services**

	Frequency	Percent
Often: 2-4 times per week	1	2.7
Sometimes: once per week	1	2.7
Rarely: 1-2 times per semester	28	75.7
Never	7	18.9
<b>Total</b>	<b>37</b>	<b>100.0</b>
No Response	2	
Total	39	

**9g. Please indicate how often you use each of the following campus resources: LRC: Computer Lab (SETL)**

	Frequency	Percent
Often: 2-4 times per week	8	22.2
Sometimes: once per week	9	25.0
Rarely: 1-2 times per semester	11	30.6
Never	8	22.2
<b>Total</b>	<b>36</b>	<b>100.0</b>
No Response	1	
N/A	2	
Total	39	

**9h. Please indicate how often you use each of the following campus resources: LRC: Instructional Media (video carrels)**

	Frequency	Percent
Often: 2-4 times per week	2	6.5
Sometimes: once per week	4	12.9
Rarely: 1-2 times per semester	5	16.1
Never	20	64.5
<b>Total</b>	<b>31</b>	<b>100.0</b>
No Response	3	
N/A	5	
Total	39	

**9i. Please indicate how often you use each of the following campus resources: LRC: Main Library**

	Frequency	Percent
Often: 2-4 times per week	9	25.7
Sometimes: once per week	11	31.4
Rarely: 1-2 times per semester	10	28.6
Never	5	14.3
<b>Total</b>	<b>35</b>	<b>100.0</b>
No Response	1	
N/A	3	
Total	39	

9j. Please indicate how often you use each of the following campus resources: Math Study Center

	Frequency	Percent
Sometimes: once per week	1	3.4
Rarely: 1-2 times per semester	4	13.8
Never	24	82.8
<b>Total</b>	<b>29</b>	<b>100.0</b>
No Response	3	
N/A	7	
Total	39	

9k. Please indicate how often you use each of the following campus resources: Student Affairs Office

	Frequency	Percent
Sometimes: once per week	1	3.6
Rarely: 1-2 times per semester	8	28.6
Never	19	67.9
<b>Total</b>	<b>28</b>	<b>100.0</b>
No Response	4	
N/A	7	
Total	39	

9l. Please indicate how often you use each of the following campus resources: Tutoring Center

	Frequency	Percent
Rarely: 1-2 times per semester	6	20.0
Never	24	80.0
<b>Total</b>	<b>30</b>	<b>100.0</b>
No Response	3	
N/A	6	
Total	39	

9n. Please indicate how often you use each of the following campus resources: Other

	Frequency
Computer Lab: "Very Effective"	1

10. Gender

	Frequency	Percent
Male	14	35.9
Female	25	64.1
<b>Total</b>	<b>39</b>	<b>100.0</b>

**11. Age**

	Frequency	Percent
Under 20	1	2.6
20-24	6	15.4
25-29	11	28.2
30-49	20	51.3
50 or older	1	2.6
<b>Total</b>	<b>39</b>	<b>100.0</b>

**12. Ethnicity**

	Frequency	Percent
White, Non-Hispanic and not of Middle Eastern descent	22	61.1
Asian	5	13.9
Hispanic	5	13.9
Filipino	4	11.1
<b>Total</b>	<b>36</b>	<b>100.0</b>
No Response	3	
<b>Total</b>	<b>39</b>	

**13. Primary Language**

	Frequency	Percent
Chinese	1	2.6
English	32	84.2
Spanish	1	2.6
Other	4	10.5
<b>Total</b>	<b>38</b>	<b>100.0</b>
No Response	1	
<b>Total</b>	<b>39</b>	

**13t. Primary Language (other)**

	Frequency
Polish	1
Sinnola	1
Vietnamesse	1



**Grossmont College Cardiovascular Technology Student Survey  
 Second Year Students  
 Fall 2007  
 N=38**

**1. How many courses have you taken in this department at Grossmont College? (including this current course and any repeated courses)**

	Frequency	Percent
One	3	8.1
Three	1	2.7
More than three	33	89.2
<b>Total</b>	<b>37</b>	<b>100.0</b>
No Response	1	
Total	38	

**2. Is your major in this department?**

	Frequency	Percent
Yes	37	97.4
Undecided	1	2.6
<b>Total</b>	<b>38</b>	<b>100.0</b>

**3. How did you find out about this class? (mark all that apply)**

	Frequency	Percent
Friend or family member	16	48.5
Grossmont webpage (online)	12	36.4
Work referral	4	12.1
Class schedule / College catalog	5	15.2
Grossmont College Counselor	5	15.2
Grossmont College Instructor	2	6.1
Cuyamaca College presentation or special event. (teacher came to class, career day, campus activity)	2	6.1
Public media (radio, TV, newspaper, ad)	1	3.0

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 33).

**4. What is your reason(s) for taking courses in this department? (mark all that apply)**

	Frequency	Percent
Required for major	21	65.6
Improve job skills	13	40.6
General interest	9	28.1
Would like to major in a related field	8	25.0
General education requirement	2	6.3
Prerequisite	2	6.3
Fits my schedule	1	3.1
Other	5	15.6

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 32).

**4t. What is your reason(s) for taking this class? (other)**

	Frequency
Career Choice	2
Career opportunities	1
New career	1
Prepare for new career	1

**5. Which of the following helped you learn the course material best? (mark all that apply)**

	Frequency	Percent
Lecture	31	83.8
Handouts	28	75.7
Textbook	23	62.2
Study groups	22	59.5
Quizzes	19	51.4
Homework	18	48.6
Instructor /Class notes	15	40.5
Group work in class	14	37.8
Slides, transparencies	14	37.8
Class discussion	13	35.1
Computer lab	12	32.4
Videos/DVDs	11	29.7
Instructor website	10	27.0
Tutoring	10	27.0
Computer presentations	6	16.2
Meeting(s) with instructor	5	13.5
Online discussion boards	2	5.4
Other	2	5.4

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,37)

**5t. Which of the following helped you learn the course material best? (other)**

	Frequency
Self instruction	1
Student centered learning	1

**6a. Please indicate your level of agreement with the following statements:  
The classrooms for this program are clean and in good repair.**

	Frequency	Percent
Strongly agree	11	28.9
Agree	26	68.4
Neutral	1	2.6
<b>Total</b>	<b>38</b>	<b>100.0</b>

**6b. Please indicate your level of agreement with the following statements: The classroom equipment is maintained and up-to-date.**

	Frequency	Percent
Strongly agree	8	21.1
Agree	13	34.2
Neutral	6	15.8
Disagree	6	15.8
Strongly disagree	5	13.2
<b>Total</b>	<b>38</b>	<b>100.0</b>

**6c. Please indicate your level of agreement with the following statements:  
The computer technology used in the classroom is up-to-date.**

	Frequency	Percent
Strongly agree	14	36.8
Agree	16	42.1
Neutral	5	13.2
Disagree	3	7.9
<b>Total</b>	<b>38</b>	<b>100.0</b>

**6d. Please indicate your level of agreement with the following statements:  
The textbooks for this class were available in the bookstore when needed.**

	Frequency	Percent
Strongly agree	14	36.8
Agree	21	55.3
Neutral	1	2.6
Disagree	1	2.6
Don't Know	1	2.6
<b>Total</b>	<b>38</b>	<b>100.0</b>

**7. How satisfied are you with the availability of courses in this department?**

	Frequency	Percent
Very satisfied	25	65.8
Satisfied	10	26.3
Neutral	3	7.9
<b>Total</b>	<b>38</b>	<b>100.0</b>

**8a. What would be your preferred start time(s) for courses to be offered? : Weekdays**

	Frequency	Percent
Early Morning (7am-8am)	20	64.5
Morning/Afternoon (9am-3pm)	12	38.7
Evening: Monday-Thursday (4pm-9pm)	7	22.6
Evening: Friday (4pm- 9pm)	1	3.2
No preference	8	25.8

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,31)

**8b. What would be your preferred start time(s) for courses to be offered? : Saturdays**

	Frequency	Percent
Early Morning (7am-8am)	4	11.1
Morning/Afternoon (9am-3pm)	5	13.9
No preference	2	5.6
Would not attend on Saturdays	27	75.0

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,36)

**8c. What would be your preferred start time(s) for courses to be offered? : Sundays (if offered)**

	Frequency	Percent
Morning/Afternoon (9am-3pm)	2	5.7
No preference	2	5.7
Would not attend on Sundays	33	94.3

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,35)

**9a. Please indicate how often you use each of the following campus resources: Assessment & Testing Center**

	Frequency	Percent
Sometimes: once per week	5	14.7
Rarely: 1-2 times per semester	14	41.2
Never	15	44.1
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	2	
N/A	2	
Total	38	

**9b. Please indicate how often you use each of the following campus resources: Career Center**

	Frequency	Percent
Rarely: 1-2 times per semester	12	35.3
Never	22	64.7
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	1	
N/A	3	
Total	38	

**9c. Please indicate how often you use each of the following campus resources: Counseling Office**

	Frequency	Percent
Rarely: 1-2 times per semester	21	60.0
Never	14	40.0
<b>Total</b>	<b>35</b>	<b>100.0</b>
N/A	3	
Total	38	

**9d. Please indicate how often you use each of the following campus resources: English Writing Center**

	Frequency	Percent
Sometimes: once per week	1	2.9
Rarely: 1-2 times per semester	5	14.3
Never	29	82.9
<b>Total</b>	<b>35</b>	<b>100.0</b>
No Response	1	
N/A	2	
Total	38	

**9e. Please indicate how often you use each of the following campus resources: English Reading Center**

	Frequency	Percent
Sometimes: once per week	1	2.9
Rarely: 1-2 times per semester	3	8.8
Never	30	88.2
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	2	
N/A	2	
Total	38	

9f. Please indicate how often you use each of the following campus resources: Health Services

	Frequency	Percent
Sometimes: once per week	1	2.7
Rarely: 1-2 times per semester	24	64.9
Never	12	32.4
<b>Total</b>	<b>37</b>	<b>100.0</b>
N/A	1	
Total	38	

9g. Please indicate how often you use each of the following campus resources: LRC: Computer Lab (SETL)

	Frequency	Percent
Often: 2-4 times per week	6	17.1
Sometimes: once per week	11	31.4
Rarely: 1-2 times per semester	14	40.0
Never	4	11.4
<b>Total</b>	<b>35</b>	<b>100.0</b>
N/A	3	
Total	38	

9h. Please indicate how often you use each of the following campus resources: LRC: Instructional Media (video carrels)

	Frequency	Percent
Sometimes: once per week	5	14.7
Rarely: 1-2 times per semester	6	17.6
Never	23	67.6
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	1	
N/A	3	
Total	38	

9i. Please indicate how often you use each of the following campus resources: LRC: Main Library

	Frequency	Percent
Often: 2-4 times per week	8	22.9
Sometimes: once per week	13	37.1
Rarely: 1-2 times per semester	11	31.4
Never	3	8.6
<b>Total</b>	<b>35</b>	<b>100.0</b>
N/A	3	
Total	38	

9j. Please indicate how often you use each of the following campus resources: Math Study Center

	Frequency	Percent
Sometimes: once per week	1	2.9
Rarely: 1-2 times per semester	6	17.6
Never	27	79.4
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	1	
N/A	3	
Total	38	

9k. Please indicate how often you use each of the following campus resources: Student Affairs Office

	Frequency	Percent
Sometimes: once per week	3	8.6
Rarely: 1-2 times per semester	12	34.3
Never	20	57.1
<b>Total</b>	<b>35</b>	<b>100.0</b>
No Response	1	
N/A	2	
Total	38	

9l. Please indicate how often you use each of the following campus resources: Tutoring Center

	Frequency	Percent
Often: 2-4 times per week	1	2.9
Sometimes: once per week	2	5.9
Rarely: 1-2 times per semester	3	8.8
Never	28	82.4
<b>Total</b>	<b>34</b>	<b>100.0</b>
No Response	1	
N/A	3	
Total	38	

9n. Please indicate how often you use each of the following campus resources: Other

	Frequency
Computer Lab: "Sometimes"	1

10. Gender

	Frequency	Percent
Male	17	44.7
Female	21	55.3
<b>Total</b>	<b>38</b>	<b>100.0</b>

**11. Age**

	Frequency	Percent
20-24	6	16.2
25-29	6	16.2
30-49	23	62.2
50 or older	2	5.4
<b>Total</b>	<b>37</b>	<b>100.0</b>
No Response	1	
Total	38	

**12. Ethnicity**

	Frequency	Percent
White, Non-Hispanic and not of Middle Eastern descent	21	60.0
Hispanic	4	11.4
Filipino	4	11.4
Asian	2	5.7
Black	2	5.7
Middle Eastern	2	5.7
<b>Total</b>	<b>35</b>	<b>100.0</b>
No Response	3	
Total	38	

**13. Primary Language**

	Frequency	Percent
English	27	73.0
Russian	4	10.8
Arabic/Chaldean	1	2.7
Spanish	1	2.7
Other	4	10.8
<b>Total</b>	<b>37</b>	<b>100.0</b>
No Response	1	
Total	38	

**13t. Primary Language (other)**

	Frequency
French	1
Tagalog	1
Vietnamese	1



**Grossmont College Cardiovascular Technology Student Survey**  
**First and Second Year Students**  
**Fall 2007**  
**N=77**

**1. How many courses have you taken in this department at Grossmont College? (including this current course and any repeated courses)**

	Frequency	Percent
One	3	3.9
Two	1	1.3
Three	1	1.3
More than three	71	93.4
<b>Total</b>	<b>76</b>	<b>100.0</b>
No Response	1	
<b>Total</b>	<b>77</b>	

**2. Is your major in this department?**

	Frequency	Percent
Yes	75	97.4
No	1	1.3
Undecided	1	1.3
<b>Total</b>	<b>77</b>	<b>100.0</b>

**3. How did you find out about this class? (mark all that apply)**

	Frequency	Percent
Friend or family member	42	58.3
Grossmont webpage (online)	22	30.6
Work referral	10	13.9
Class schedule / College catalog	9	12.5
Grossmont College Counselor	7	9.7
Grossmont College Instructor	5	6.9
Cuyamaca College presentation or special event. (teacher came to class, career day, campus activity)	2	2.8
Public media (radio, TV, newspaper, ad)	2	2.8

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 72).

**4. What is your reason(s) for taking courses in this department? (mark all that apply)**

	Frequency	Percent
Required for major	41	57.7
Improve job skills	29	40.8
General interest	20	28.2
Would like to major in a related field	18	25.4
General education requirement	4	5.6
Prerequisite	4	5.6
Transfer	1	1.4
Other	9	12.7

\*Note: Since respondents are able to select more than one option, the total percent may not equal 100. Percentage is based on the total number of students responding to this item (i.e., 71).

**4t. What is your reason(s) for taking this class? (other)**

	Frequency
Prepare for new career	2
Career Choice	2
Career goals	1
Career opportunities	1
Career Training	1
Its of my interest	1
Take care of people	1

**5. Which of the following helped you learn the course material best? (mark all that apply)**

	Frequency	Percent
Lecture	65	94.2
Handouts	61	88.4
Study groups	48	69.6
Textbook	35	50.7
Quizzes	35	50.7
Homework	34	49.3
Slides, transparencies	32	46.4
Instructor /Class notes	27	39.1
Class discussion	26	37.7
Computer lab	24	34.8
Videos/DVDs	24	34.8
Group work in class	23	33.3
Instructor website	17	24.6
Computer presentations	14	20.3
Tutoring	14	20.3
Meeting(s) with instructor	9	13.0
Online discussion boards	3	4.3
Other	3	4.3

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,69)

5t. Which of the following helped you learn the course material best? (other)

	Frequency
Lab	1
Self instruction	1
Student centered learning	1

6a. Please indicate your level of agreement with the following statements:  
The classrooms for this program are clean and in good repair.

	Frequency	Percent
Strongly agree	22	28.6
Agree	49	63.6
Neutral	3	3.9
Disagree	3	3.9
<b>Total</b>	<b>77</b>	<b>100.0</b>

6b. Please indicate your level of agreement with the following statements: The classroom equipment is maintained and up-to-date.

	Frequency	Percent
Strongly agree	12	15.6
Agree	33	42.9
Neutral	12	15.6
Disagree	15	19.5
Strongly disagree	5	6.5
<b>Total</b>	<b>77</b>	<b>100.0</b>

6c. Please indicate your level of agreement with the following statements:  
The computer technology used in the classroom is up-to-date.

	Frequency	Percent
Strongly agree	23	29.9
Agree	33	42.9
Neutral	14	18.2
Disagree	6	7.8
Don't Know	1	1.3
<b>Total</b>	<b>77</b>	<b>100.0</b>

6d. Please indicate your level of agreement with the following statements:  
The textbooks for this class were available in the bookstore when needed.

	Frequency	Percent
Strongly agree	19	24.7
Agree	42	54.5
Neutral	10	13.0
Disagree	5	6.5
Don't Know	1	1.3
<b>Total</b>	<b>77</b>	<b>100.0</b>

**7. How satisfied are you with the availability of courses in this department?**

	Frequency	Percent
Very satisfied	48	62.3
Satisfied	23	29.9
Neutral	5	6.5
Very dissatisfied	1	1.3
<b>Total</b>	<b>77</b>	<b>100.0</b>

**8a. What would be your preferred start time(s) for courses to be offered? : Weekdays**

	Frequency	Percent
Early Morning (7am-8am)	49	66.2
Morning/Afternoon (9am-3pm)	23	31.1
Evening: Monday-Thursday (4pm-9pm)	11	14.9
Evening: Friday (4pm- 9pm)	3	4.1
No preference	11	14.9

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,74)

**8b. What would be your preferred start time(s) for courses to be offered? : Saturdays**

	Frequency	Percent
Early Morning (7am-8am)	7	9.5
Morning/Afternoon (9am-3pm)	10	13.5
Evening (4pm-9pm)	2	2.7
No preference	6	8.1
Would not attend on Saturdays	46	62.2

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,74)

**8c. What would be your preferred start time(s) for courses to be offered? : Sundays (if offered)**

	Frequency	Percent
Early Morning (7am-8am)	2	2.7
Morning/Afternoon (9am-3pm)	3	4.1
Evening: Monday-Thursday (4pm-9pm)	2	2.7
No preference	7	9.5
Would not attend on Sundays	57	77.0

Note: Since respondents are able to select more than one option, the total percent may not be equal to 100. Percentages are based on the total number of respondents to this item (i.e.,74)

**9a. Please indicate how often you use each of the following campus resources: Assessment & Testing Center**

	Frequency	Percent
Often: 2-4 times per week	4	6.2
Sometimes: once per week	8	12.3
Rarely: 1-2 times per semester	25	38.5
Never	28	43.1
<b>Total</b>	<b>65</b>	<b>100.0</b>
No Response	5	
N/A	7	
Total	77	

**9b. Please indicate how often you use each of the following campus resources: Career Center**

	Frequency	Percent
Sometimes: once per week	1	1.5
Rarely: 1-2 times per semester	21	31.3
Never	45	67.2
<b>Total</b>	<b>67</b>	<b>100.0</b>
No Response	3	
N/A	7	
Total	77	

**9c. Please indicate how often you use each of the following campus resources: Counseling Office**

	Frequency	Percent
Sometimes: once per week	2	2.9
Rarely: 1-2 times per semester	47	68.1
Never	20	29.0
<b>Total</b>	<b>69</b>	<b>100.0</b>
No Response	3	
N/A	5	
Total	77	

**9d. Please indicate how often you use each of the following campus resources: English Writing Center**

	Frequency	Percent
Sometimes: once per week	3	4.6
Rarely: 1-2 times per semester	10	15.4
Never	52	80.0
<b>Total</b>	<b>65</b>	<b>100.0</b>
No Response	4	
N/A	8	
Total	77	

9e. Please indicate how often you use each of the following campus resources: English Reading Center

	Frequency	Percent
Sometimes: once per week	1	1.6
Rarely: 1-2 times per semester	7	11.3
Never	54	87.1
<b>Total</b>	<b>62</b>	<b>100.0</b>
No Response	7	
N/A	8	
Total	77	

9f. Please indicate how often you use each of the following campus resources: Health Services

	Frequency	Percent
Often: 2-4 times per week	1	1.4
Sometimes: once per week	2	2.7
Rarely: 1-2 times per semester	52	70.3
Never	19	25.7
<b>Total</b>	<b>74</b>	<b>100.0</b>
No Response	2	
N/A	1	
Total	77	

9g. Please indicate how often you use each of the following campus resources: LRC: Computer Lab (SETL)

	Frequency	Percent
Often: 2-4 times per week	14	19.7
Sometimes: once per week	20	28.2
Rarely: 1-2 times per semester	25	35.2
Never	12	16.9
<b>Total</b>	<b>71</b>	<b>100.0</b>
No Response	1	
N/A	5	
Total	77	

9h. Please indicate how often you use each of the following campus resources: LRC: Instructional Media (video carrels)

	Frequency	Percent
Often: 2-4 times per week	2	3.1
Sometimes: once per week	9	13.8
Rarely: 1-2 times per semester	11	16.9
Never	43	66.2
<b>Total</b>	<b>65</b>	<b>100.0</b>
No Response	4	
N/A	8	
Total	77	

9i. Please indicate how often you use each of the following campus resources: LRC: Main Library

	Frequency	Percent
Often: 2-4 times per week	17	24.3
Sometimes: once per week	24	34.3
Rarely: 1-2 times per semester	21	30.0
Never	8	11.4
<b>Total</b>	<b>70</b>	<b>100.0</b>
No Response	1	
N/A	6	
Total	77	

9j. Please indicate how often you use each of the following campus resources: Math Study Center

	Frequency	Percent
Sometimes: once per week	2	3.2
Rarely: 1-2 times per semester	10	15.9
Never	51	81.0
<b>Total</b>	<b>63</b>	<b>100.0</b>
No Response	4	
N/A	10	
Total	77	

9k. Please indicate how often you use each of the following campus resources: Student Affairs Office

	Frequency	Percent
Sometimes: once per week	4	6.3
Rarely: 1-2 times per semester	20	31.7
Never	39	61.9
<b>Total</b>	<b>63</b>	<b>100.0</b>
No Response	5	
N/A	9	
Total	77	

9l. Please indicate how often you use each of the following campus resources: Tutoring Center

	Frequency	Percent
Often: 2-4 times per week	1	1.6
Sometimes: once per week	2	3.1
Rarely: 1-2 times per semester	9	14.1
Never	52	81.3
<b>Total</b>	<b>64</b>	<b>100.0</b>
No Response	4	
N/A	9	
Total	77	

9m. Please indicate how often you use each of the following campus resources: Other

	Frequency
Computer Lab: "Very Effective"	1
Computer Lab: "Sometimes"	1

10. Gender

	Frequency	Percent
Male	31	40.3
Female	46	59.7
<b>Total</b>	<b>77</b>	<b>100.0</b>

11. Age

	Frequency	Percent
Under 20	1	1.3
20-24	12	15.8
25-29	17	22.4
30-49	43	56.6
50 or older	3	3.9
<b>Total</b>	<b>76</b>	<b>100.0</b>
No Response	1	
<b>Total</b>	<b>77</b>	

12. Ethnicity

	Frequency	Percent
White, Non-Hispanic and not of Middle Eastern descent	43	60.6
Hispanic	9	12.7
Filipino	8	11.3
Asian	7	9.9
Black	2	2.8
Middle Eastern	2	2.8
<b>Total</b>	<b>71</b>	<b>100.0</b>
No Response	6	
<b>Total</b>	<b>77</b>	



**13. Primary Language**

	Frequency	Percent
English	59	78.7
Russian	4	5.3
Spanish	2	2.7
Arabic/Chaldean	1	1.3
Chinese	1	1.3
Other	8	10.7
<b>Total</b>	<b>75</b>	<b>100.0</b>
No Response	2	
Total	77	

**13t. Primary Language (other)**

	Frequency
Vietnamese	2
French	1
Polish	1
Sinnola	1
Tagalog	1

# **Appendix 7**

## **Statistical Data: Outcomes Profile**

	Enrollment by Ethnicity											
	Fall 2001		Fall 2002		Fall 2003		Fall 2004		Fall 2005		Fall 2006	
	N	%	N	%	N	%	N	%	N	%	N	%
<b>Ethnicity</b>												
Asian	45	8.0	70	10.4	67	8.7	46	6.8	49	7.1	75	9.0
Black non-Hispanic	50	8.9	53	7.8	61	7.9	65	9.6	56	8.2	55	6.6
Filipino	76	13.6	63	9.3	65	8.5	63	9.3	78	11.4	82	9.8
Hispanic	62	11.1	102	15.1	94	12.2	89	13.1	98	14.3	119	14.3
American Indian/Alaskan Native	5	0.9	2	0.3	7	0.9	8	1.2	1	0.1	7	0.8
Other	6	1.1	2	0.3	15	2.0	13	1.9	16	2.3	18	2.2
Pacific Islander	7	1.3	7	1.0	12	1.6	9	1.3	1	0.1	7	0.8
White non-Hispanic	292	52.1	359	53.1	418	54.4	333	49.0	316	46.1	411	49.3
Unknown	17	3.0	18	2.7	30	3.9	53	7.8	71	10.3	60	7.2
<b>Total</b>	<b>560</b>	<b>100.0</b>	<b>676</b>	<b>100.0</b>	<b>769</b>	<b>100.0</b>	<b>679</b>	<b>100.0</b>	<b>686</b>	<b>100.0</b>	<b>834</b>	<b>100.0</b>

**Enrollment by Gender**

	Fall 2001		Fall 2002		Fall 2003		Fall 2004		Fall 2005		Fall 2006	
	N	%	N	%	N	%	N	%	N	%	N	%
Male	163	29.1	203	30.0	244	31.7	208	30.6	228	33.2	249	29.9
Female	394	70.4	473	70.0	525	68.3	469	69.1	444	64.7	573	68.7
Not Reported	3	0.5	0	0.0	0	0.0	2	0.3	14	2.0	12	1.4
<b>Total</b>	<b>560</b>	<b>100.0</b>	<b>676</b>	<b>100.0</b>	<b>769</b>	<b>100.0</b>	<b>679</b>	<b>100.0</b>	<b>686</b>	<b>100.0</b>	<b>834</b>	<b>100.0</b>

**Enrollment by Age**

Age	Fall 2001		Fall 2002		Fall 2003		Fall 2004		Fall 2005		Fall 2006	
	N	%	N	%	N	%	N	%	N	%	N	%
Less than 20	4	0.7	7	1.0	4	0.5	8	1.2	8	1.2	9	1.1
20 - 24	111	19.8	164	24.3	164	21.3	113	16.6	138	20.1	175	21.0
25 - 29	140	25.0	159	23.5	175	22.8	147	21.6	140	20.4	200	24.0
30 - 49	289	51.6	325	48.1	373	48.5	337	49.6	344	50.1	398	47.7
50+	16	2.9	21	3.1	53	6.9	74	10.9	56	8.2	52	6.2
<b>Total</b>	<b>560</b>	<b>100.0</b>	<b>676</b>	<b>100.0</b>	<b>769</b>	<b>100.0</b>	<b>679</b>	<b>100.0</b>	<b>686</b>	<b>100.0</b>	<b>834</b>	<b>100.0</b>

Gender	Success and Retention by Gender Fall 2001									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	102	84.3%	4	3.3%	15	12.4%	106	87.6%	121	100.0%
Female	203	94.0%	2	0.9%	11	5.1%	205	94.9%	216	100.0%
Not Reported	3	100.0%	0	0.0%	0	0.0%	3	100.0%	3	100.0%
<b>Total</b>	<b>308</b>	<b>90.6%</b>	<b>6</b>	<b>1.8%</b>	<b>26</b>	<b>7.6%</b>	<b>314</b>	<b>92.4%</b>	<b>340</b>	<b>100.0%</b>

Gender	Success and Retention by Gender Fall 2002									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	135	95.1%	0	0.0%	7	4.9%	135	95.1%	142	100.0%
Female	250	94.7%	4	1.5%	10	3.8%	254	96.2%	264	100.0%
Not Reported	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	100.0%
<b>Total</b>	<b>385</b>	<b>94.8%</b>	<b>4</b>	<b>1.0%</b>	<b>17</b>	<b>4.2%</b>	<b>389</b>	<b>95.8%</b>	<b>406</b>	<b>100.0%</b>

Gender	Success and Retention by Gender Fall 2003									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	148	92.8%	2	2.5%	23	4.7%	150	86.7%	173	100.0%
Female	266	92.9%	9	2.1%	13	5.0%	275	95.5%	288	100.0%
Not Reported	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	100.0%
<b>Total</b>	<b>414</b>	<b>92.8%</b>	<b>11</b>	<b>2.3%</b>	<b>36</b>	<b>4.9%</b>	<b>425</b>	<b>92.2%</b>	<b>461</b>	<b>100.0%</b>

Gender	Success and Retention by Gender Fall 2004									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	137	91.90%	5	3.40%	7	4.70%	142	95.3%	149	100.0%
Female	242	94.90%	1	0.40%	12	4.70%	243	95.3%	255	100.0%
Not Reported	0	0.00%	0	0.00%	0	0.00%	0	0.0%	0	100.0%
<b>Total</b>	<b>379</b>	<b>93.80%</b>	<b>6</b>	<b>1.50%</b>	<b>19</b>	<b>4.70%</b>	<b>385</b>	<b>95.3%</b>	<b>404</b>	<b>100.0%</b>

Gender	Success and Retention by Gender Fall 2005									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	151	96.20%	6	3.80%	0	0	157	100.0%	157	100.0%
Female	204	91.10%	6	2.70%	14	6.30%	210	93.8%	224	100.0%
Not Reported	9	100.00%	0	0	0	0	9	0.0%	9	100.0%
<b>Total</b>	<b>364</b>	<b>151 11</b>	<b>12</b>	<b>3.10%</b>	<b>14</b>	<b>3.60%</b>	<b>376</b>	<b>96.4%</b>	<b>390</b>	<b>100.0%</b>

Gender	Success and Retention by Gender Fall 2006									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Male	151	87.8%	11	6.4%	10	5.8%	162	94.2%	172	100.0%
Female	296	89.7%	18	5.5%	16	4.8%	314	95.2%	330	100.0%
Not Reported	8	80.0%	2	20.0%	0	0.0%	10	0.0%	10	100.0%
<b>Total</b>	<b>455</b>	<b>88.9%</b>	<b>31</b>	<b>6.1%</b>	<b>26</b>	<b>5.1%</b>	<b>486</b>	<b>94.9%</b>	<b>512</b>	<b>100.0%</b>

Ethnicity	Success and Retention by Ethnicity Fall 2001								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N
Asian	32	100.0%	0	0.0%	0	0.0%	32	100.0%	32
Black non-Hispanic	25	78.1%	3	9.4%	4	12.5%	28	87.5%	32
Filipino	26	86.7%	0	0.0%	4	13.3%	26	86.7%	30
Hispanic	35	83.3%	2	4.8%	5	11.9%	37	88.1%	42
American Indian/Alaskan Native	3	60.0%	0	0.0%	2	40.0%	3	60.0%	5
Other	3	100.0%	0	0.0%	0	0.0%	3	100.0%	3
Pacific Islander	4	100.0%	0	0.0%	0	0.0%	4	100.0%	4
White non-Hispanic	166	93.3%	1	0.6%	11	6.2%	167	93.8%	178
Unknown	14	100.0%	0	0.0%	0	0.0%	14	100.0%	14
<b>Total</b>	<b>308</b>	<b>90.6%</b>	<b>6</b>	<b>1.8%</b>	<b>26</b>	<b>7.6%</b>	<b>314</b>	<b>92.4%</b>	<b>340</b>

Ethnicity	Success and Retention by Ethnicity Fall 2002								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N
Asian	44	100.0%	0	0.0%	0	0.0%	44	100.0%	44
Black non-Hispanic	34	91.9%	2	5.4%	1	2.7%	36	97.3%	37
Filipino	18	78.3%	0	0.0%	5	21.7%	18	78.3%	23
Hispanic	64	97.0%	1	1.5%	1	1.5%	65	98.5%	66
American Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Other	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Pacific Islander	4	100.0%	0	0.0%	0	0.0%	4	100.0%	4
White non-Hispanic	211	95.5%	0	0.0%	10	4.5%	211	95.5%	221
Unknown	10	90.9%	1	9.1%	0	0.0%	11	100.0%	11
<b>Total</b>	<b>385</b>	<b>94.8%</b>	<b>4</b>	<b>1.0%</b>	<b>17</b>	<b>4.2%</b>	<b>389</b>	<b>95.8%</b>	<b>406</b>

Ethnicity	Success and Retention by Ethnicity Fall 2003								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N
Asian	38	92.7%	2	4.9%	1	2.4%	40	97.6%	41
Black non-Hispanic	37	90.2%	2	4.9%	2	4.9%	39	95.1%	41
Filipino	22	78.6%	0	0.0%	6	21.4%	22	78.6%	28
Hispanic	40	88.9%	1	2.2%	4	8.9%	41	91.1%	45
American Indian/Alaskan Native	4	100.0%	0	0.0%	0	0.0%	4	0.0%	4
Other	5	62.5%	3	37.5%	0	0.0%	8	0.0%	8
Pacific Islander	8	100.0%	0	0.0%	0	0.0%	8	100.0%	8
White non-Hispanic	242	91.0%	1	0.4%	23	8.6%	243	91.4%	266
Unknown	18	90.0%	2	10.0%	0	0.0%	20	100.0%	20
<b>Total</b>	<b>414</b>	<b>89.8%</b>	<b>11</b>	<b>2.4%</b>	<b>36</b>	<b>7.8%</b>	<b>425</b>	<b>92.2%</b>	<b>461</b>

Ethnicity	Success and Retention by Ethnicity Fall 2004								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N

Asian	30	100.0%	0	0.0%	0	0.0%	30	7.8%	30
Black non-Hispanic	42	93.3%	3	6.7%	0	0.0%	45	11.7%	45
Filipino	20	95.2%	0	0.0%	1	4.8%	20	5.2%	21
Hispanic	44	95.7%	1	2.2%	1	2.2%	45	11.7%	46
American Indian/Alaskan Native	3	100.0%	0	0.0%	0	0.0%	3	0.8%	3
Other	7	100.0%	0	0.0%	0	0.0%	7	1.8%	7
Pacific Islander	7	100.0%	0	0.0%	0	0.0%	7	1.8%	7
White non-Hispanic	190	90.9%	2	1.0%	17	8.1%	192	49.9%	209
Unknown	36	100.0%	0	0.0%	0	0.0%	36	9.4%	36
<b>Total</b>	<b>379</b>	<b>93.8%</b>	<b>6</b>	<b>1.5%</b>	<b>19</b>	<b>4.7%</b>	<b>385</b>	<b>95.3%</b>	<b>404</b>

Ethnicity	Success and Retention by Ethnicity Fall 2005								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N
Asian	36	100.0%	0	0.0%	0	0.0%	36	100.0%	36
Black non-Hispanic	24	80.0%	6	20.0%	0	0.0%	30	100.0%	30
Filipino	25	89.3%	2	7.1%	1	3.6%	27	96.4%	28
Hispanic	51	87.9%	3	5.2%	4	6.9%	54	93.1%	58
American Indian/Alaskan Native	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Other	7	100.0%	0	0.0%	0	0.0%	7	100.0%	7
Pacific Islander	0	0.0%	0	0.0%	1	100.0%	0	0.0%	1
White non-Hispanic	171	95.0%	1	0.6%	8	4.4%	172	95.6%	180
Unknown	50	100.0%	0	0.0%	0	0.0%	50	100.0%	50
<b>Total</b>	<b>364</b>	<b>93.3%</b>	<b>12</b>	<b>3.1%</b>	<b>14</b>	<b>3.6%</b>	<b>376</b>	<b>96.4%</b>	<b>390</b>

Ethnicity	Success and Retention by Ethnicity Fall 2006								
	Success		No Success		Withdrawal		Retention		To
	N	%	N	%	N	%	N	%	N
Asian	49	86.0%	7	12.3%	1	1.8%	56	98.2%	57
Black non-Hispanic	28	82.4%	4	11.8%	2	5.9%	32	94.1%	34
Filipino	28	93.3%	0	0.0%	2	6.7%	28	93.3%	30
Hispanic	69	92.0%	5	6.7%	1	1.3%	74	98.7%	75
American Indian/Alaskan Native	3	75.0%	0	0.0%	1	25.0%	3	75.0%	4
Other	11	84.6%	0	0.0%	2	15.4%	11	84.6%	13
Pacific Islander	4	100.0%	0	0.0%	0	0.0%	4	100.0%	4
White non-Hispanic	232	93.2%	12	4.8%	5	2.0%	244	98.0%	249
Unknown	31	67.4%	3	6.5%	12	26.1%	34	73.9%	46
<b>Total</b>	<b>455</b>	<b>88.9%</b>	<b>31</b>	<b>6.1%</b>	<b>26</b>	<b>5.1%</b>	<b>486</b>	<b>94.9%</b>	<b>512</b>



Age	Success and Retention by Age Fall 2001									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	4	100.0%	0	0.0%	0	0.0%	4	100.0%	4	100.0%
20 - 24	72	96.0%	2	2.7%	1	1.3%	74	98.7%	75	100.0%
25 - 29	77	98.7%	1	1.3%	0	0.0%	78	100.0%	78	100.0%
30 - 49	151	88.8%	3	1.8%	16	9.4%	154	90.6%	170	100.0%
50+	4	30.8%	0	0.0%	9	69.2%	4	30.8%	13	100.0%
<b>Total</b>	<b>308</b>	<b>90.6%</b>	<b>6</b>	<b>1.8%</b>	<b>26</b>	<b>7.6%</b>	<b>314</b>	<b>92.4%</b>	<b>340</b>	<b>100.0%</b>

Age	Success and Retention by Age Fall 2002									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	5	100.0%	0	0.0%	0	0.0%	5	100.0%	5	100.0%
20 - 24	83	92.2%	0	0.0%	7	7.8%	83	92.2%	90	100.0%
25 - 29	96	100.0%	0	0.0%	0	0.0%	96	100.0%	96	100.0%
30 - 49	187	93.5%	3	1.5%	10	5.0%	190	95.0%	200	100.0%
50+	14	93.3%	1	6.7%	0	0.0%	15	100.0%	15	100.0%
<b>Total</b>	<b>385</b>	<b>94.8%</b>	<b>4</b>	<b>1.0%</b>	<b>17</b>	<b>4.2%</b>	<b>389</b>	<b>95.8%</b>	<b>406</b>	<b>100.0%</b>

Age	Success and Retention by Age Fall 2003									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	2	100.0%	0	0.0%	0	0.0%	2	100.0%	2	100.0%
20 - 24	94	94.0%	1	1.0%	5	5.0%	95	95.0%	100	100.0%
25 - 29	97	95.1%	3	2.9%	2	2.0%	100	98.0%	102	100.0%
30 - 49	189	86.7%	7	3.2%	22	10.1%	196	89.9%	218	100.0%
50+	32	82.1%	0	0.0%	7	17.9%	32	82.1%	39	100.0%
<b>Total</b>	<b>414</b>	<b>89.8%</b>	<b>11</b>	<b>2.4%</b>	<b>36</b>	<b>7.8%</b>	<b>425</b>	<b>92.2%</b>	<b>461</b>	<b>100.0%</b>

Age	Success and Retention by Age Fall 2004									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	5	83.3%	1	16.7%	0	0.0%	6	100.0%	6	100.0%
20 - 24	60	100.0%	0	0.0%	0	0.0%	60	100.0%	60	100.0%
25 - 29	76	97.4%	0	0.0%	2	2.6%	76	97.4%	78	100.0%
30 - 49	192	91.9%	1	0.5%	16	7.7%	193	92.3%	209	100.0%
50+	46	90.2%	4	7.8%	1	2.0%	50	98.0%	51	100.0%
<b>Total</b>	<b>379</b>	<b>93.8%</b>	<b>6</b>	<b>1.5%</b>	<b>19</b>	<b>4.7%</b>	<b>385</b>	<b>95.3%</b>	<b>404</b>	<b>100.0%</b>

Age	Success and Retention by Age Fall 2005									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	4	100.0%	0	0.0%	0	0.0%	4	100.0%	4	100.0%
20 - 24	83	98.8%	1	1.2%	0	0.0%	84	100.0%	84	100.0%
25 - 29	62	91.2%	1	1.5%	5	7.4%	63	92.6%	68	100.0%

30 - 49	185	94.9%	5	2.6%	5	2.6%	190	97.4%	195	100.0%
50+	30	76.9%	5	12.8%	4	10.3%	35	89.7%	39	100.0%
<b>Total</b>	<b>364</b>	<b>93.3%</b>	<b>12</b>	<b>3.1%</b>	<b>14</b>	<b>3.6%</b>	<b>376</b>	<b>96.4%</b>	<b>390</b>	<b>100.0%</b>

Age	Success and Retention by Age Fall 2006									
	Success		No Success		Withdrawal		Retention		Total	
	N	%	N	%	N	%	N	%	N	%
Less than 20	6	100.0%	0	0.0%	0	0.0%	6	100.0%	6	100.0%
20 - 24	99	86.8%	10	8.8%	5	4.4%	109	95.6%	114	100.0%
25 - 29	99	83.9%	11	9.3%	8	6.8%	110	93.2%	118	100.0%
30 - 49	224	93.3%	9	3.8%	7	2.9%	233	97.1%	240	100.0%
50+	27	79.4%	1	2.9%	6	17.6%	28	82.4%	34	100.0%
<b>Total</b>	<b>455</b>	<b>88.9%</b>	<b>31</b>	<b>6.1%</b>	<b>26</b>	<b>5.1%</b>	<b>486</b>	<b>94.9%</b>	<b>512</b>	<b>100.0%</b>

# Appendix 8

## Efficiency Report

**Grossmont College**  
**Efficiency**  
**(Earned WSCH/FTEF)**

	2001 - Fall	2002 - Spring	2002 - Fall	2003 - Spring	2003 - Fall	2004 - Spring	2004 - Fall	2005 - Spring	2005 - Fall	2006 - Spring	2006 - Fall	2007 - Spring
ANTH	555	719	668	700	685	706	698	601	647	581	590	618
AOJ	487	487	540	538	570	569	560	524	483	478	492	442
ARBC	383	325	345	295	351	410	350	298	365	331	366	372
ART	514	491	506	516	505	500	485	459	447	430	437	384
ASL	430	473	417	449	466	433	363	363	354	386	368	380
ASTR	631	612	592	565	547	565	545	504	514	451	520	495
BIO	673	696	763	720	760	758	729	765	723	692	679	661
BOT	462	446	491	500	552	386	364	341	350	257	285	275
BUS	453	512	543	555	573	530	505	468	469	472	473	470
CA	433	426	296	377	350	399	401	387	362	371	375	348
CCS	491	483	488	476	539	483	425	415	482	473	505	395
CD	500	509	547	522	511	523	530	502	525	430	502	461
CHEM	454	489	530	533	559	562	518	530	556	526	580	509
CHIN	N/A	N/A	450	435	255	435	465	360	405	450	315	338
COMM	445	446	460	431	464	437	435	425	417	386	405	389
CSIS	428	410	392	381	419	392	414	384	377	395	360	379
CVTE	285	265	360	329	366	339	385	357	357	346	426	340
DANC	423	454	411	480	395	444	443	419	429	376	405	401
ECON	747	745	736	736	778	747	649	639	614	765	737	756
ED	150	269	379	161	210	210	195	270	203	268	330	300
ENGL	361	344	381	369	366	354	354	335	345	311	346	307
ES	564	509	573	484	535	495	536	460	481	435	485	452
ESL	378	381	401	375	375	351	350	331	326	322	313	317
FACS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
FREN	367	370	347	367	380	384	347	337	318	305	347	340
FS	581	457	623	534	608	656	540	566	477	471	420	459
GEOG	567	568	585	543	583	532	530	498	482	447	445	471
GEOL	456	495	480	485	490	422	376	371	411	343	399	361
GERM	315	345	379	424	456	392	367	377	315	359	353	376
HED	737	725	871	776	848	799	819	734	694	765	710	639
HESC	294	327	381	516	510	254	473	159	609	256	416	165
HIST	552	591	570	618	614	601	605	561	545	499	545	534
HUM	535	610	576	534	526	515	466	448	392	371	363	410
ITAL	435	350	300	465	503	458	465	420	420	285	413	330
JAPN	408	353	437	341	433	468	471	444	473	443	414	359
LIR	N/A	N/A	N/A	N/A	373	N/A	164	373	239	294	313	373
MATH	592	572	629	584	613	565	593	499	545	462	533	469
MCOM	386	396	402	421	391	405	395	399	363	375	348	414
MM	255	270	N/A	291	N/A	206	N/A	137	N/A	N/A	N/A	326
MUS	473	464	462	491	465	499	472	487	430	414	403	414
NURS	271	248	247	228	253	235	250	254	207	241	245	230
OCEA	528	424	495	453	509	547	473	518	518	536	473	448
OTA	220	122	187	212	245	238	241	218	303	390	319	269
PDC	470	470	452	386	416	391	438	342	431	331	378	337
PDSS	739	640	1739	849	842	1631	802	1577	1730	1486	1622	1378
PHIL	541	594	560	588	595	594	539	490	468	422	457	427
PHYC	405	378	482	444	444	402	452	387	403	371	403	429
POSC	596	627	665	622	641	638	637	602	526	508	528	530
PSC	572	486	609	492	572	648	600	568	512	414	467	420
PSY	651	673	704	709	684	638	627	622	579	545	575	529

**Grossmont College**  
**Efficiency**  
**(Earned WSCH/FTEF)**

	2001 - Fall	2002 - Spring	2002 - Fall	2003 - Spring	2003 - Fall	2004 - Spring	2004 - Fall	2005 - Spring	2005 - Fall	2006 - Spring	2006 - Fall	2007 - Spring
<b>RELG</b>	564	675	520	621	483	576	515	591	413	413	511	453
<b>RESP</b>	173	158	166	150	182	144	209	184	230	188	231	190
<b>RUSS</b>	234	271	349	344	335	330	335	297	271	230	207	236
<b>SCI</b>	422	499	508	579	598	489	505	394	515	384	474	446
<b>SLPA</b>	225	255	262	195	220	195	268	215	208	184	343	279
<b>SOC</b>	673	630	716	668	680	681	662	568	603	487	535	519
<b>SPAN</b>	384	401	402	384	397	388	362	352	333	330	340	329
<b>SPDV</b>	109	100	103	112	83	108	68	88	58	92	48	56
<b>THTR</b>	324	338	308	312	309	303	313	295	299	287	270	261
<b>Total</b>	470	468	493	478	492	472	474	442	440	411	436	409

# Appendix 9

## Degrees & Certificates Awarded

**CARDIOVASCULAR TECHNOLOGY  
DEGREES & CERTIFICATES**

Award: Cardiovascular Technology (52053)

	Year/Semester	N		
		Type of Award		
		Degree	Certificate	Total
Students	2000 - Fall		1	1
	2001 - Spring	27	41	68
	2001 - Summer	1	2	3
	2001 - Fall	1		1
	2002 - Spring	21	21	42
	2002 - Summer		1	1
	2003 - Spring	17	26	43
	2003 - Summer		1	1
	2003 - Fall	4		4
	2004 - Spring	26	33	59
	2004 - Fall	2		2
	2005 - Spring	24	26	50
	2005 - Summer	2	1	3
	2005 - Fall	1		1
	2006 - Spring	26	32	58
	2006 - Summer	1	2	3
	2006 - Fall	3	2	5
	2007 - Spring	35	40	75
	Total	191	229	420

# **Appendix 10**

## **Sabbaticals, Conference, Workshop and Staff Development Activities**



**10. Sabbaticals, Conference, Workshop and Staff Development Activities**

Name	Activity	Relevance
Don Ridgway	St. John Vascular Symposium St. Louis, MO March 2007	National seminar on Vascular Diagnostics and treatment methodologies for vascular disease.
Don Ridgway	St. John Vascular Symposium St. Louis, MO March 2005	National seminar on Vascular Diagnostics and treatment methodologies for vascular disease.
Helen Potter	Excellence in the Practice of Cardiovascular Ultrasound Palm Springs, CA October 2007	A four day conference featuring eminent speakers and authors, presentation of scientific data and clinical case reviews.
Helen Potter	Echocardiographic Evaluation of Congenital Heart Disease San Diego, CA October 2007	A two day conference on the use of ultrasound to evaluate congenital heart disease in adults and children.
Helen Potter	The Clinical Impact of Echocardiography and Contrast Enhancement in Left Ventricular Assessment San Diego, CA October 2006	A seminar to explore new modalities and methods of assessment of the left ventricle.

Helen Potter	Tissue Doppler, LV Strain and Strain Rate Imaging. San Diego, CA June 2005	New modalities in the assessment of ventricular function indices.
Stanley Keys	Scripps Clinic 18 <sup>th</sup> Annual Coronary Interventions Conference La Jolla, CA October 2007	A 3-day national conference on coronary intervention techniques featuring scientific data presentation, case reports and analysis and live broadcasts of angioplasty and stent placement.
Stanley Keys	Boston Scientific Arrhythmia & Heart Failure Symposium for Allied Health Professionals Boston, MA March 2007	A 2-day review of diagnostic and treatment methodologies for cardiac arrhythmia and heart failure.
Andy Biondo	Scripps Clinic 18 <sup>th</sup> Annual Coronary Interventions Conference La Jolla, CA October 2007	A 3-day national conference on coronary intervention techniques featuring scientific data presentation, case reports and analysis and live broadcasts of angioplasty and stent placement.
Andy Biondo	University of Pennsylvania Scholastic Professional Development Pennsylvania, PA Online CME's - Accumulated 38 hours in Vascular Diagnostics	Continuing education in Vascular Diagnostic methods.

<p>Dan Sullivan</p>	<p>Scripps Clinic 19<sup>th</sup> Annual Coronary Interventions Conference La Jolla, CA October 2008</p>	<p>Continuing education in interventional cardiology.</p>

# Appendix 11

## Department Equivalencies

**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE**

**MINIMUM QUALIFICATIONS & EQUIVALENCIES  
FOR CVT FACULTY**

**I. MINIMUM QUALIFICATIONS FOR FULL TIME AND ADJUNCT FACULTY**

**A. Education/Experience**

1. Minimum of a Bachelor's Degree and two years full-time experience in teaching or clinical practice of Cardiovascular Technology.

OR

Associate Degree and six years full-time experience in teaching or clinical practice of Cardiovascular Technology.

OR

A current California Community College Credential that permits full-time service as an instructor in Cardiovascular Technology.

**B. Certification/Registry**

1. Registered Cardiovascular Technologist as demonstrated by successful completion of a professional registry examination conducted by Cardiovascular Credentialing International (CCI), or the National Society of Cardiopulmonary Technologists (NSCPT), or the American Registry of Diagnostic Medical Sonographers (ARDMS).

OR

Candidate must be registry-eligible and agree to obtain registry status within one year of the effective date of employment.

**II. EQUIVALENCY TO MINIMUM QUALIFICATIONS**

**A. EXPERIENCE/EDUCATION**

1. A minimum of 8 years full-time experience in the clinical practice of Cardiovascular Technology and verified minimum of 10 hours of continuing education per year the two years most recent to employment.
2. A minimum of two of the eight years required must be documented as experience in teaching courses directly related to the field of Cardiovascular Technology. Examples include but are not limited to medical continuing education courses, Advanced Cardiac Life Support certification, basic or advanced courses in electrocardiography, cardiac catheterization techniques, echocardiography, or vascular duplex imaging techniques.

OR

Twelve semester units of course work in the techniques of teaching.

**B. CERTIFICATION/REGISTRY**

1. Registered Cardiovascular Technologist as demonstrated by successful completion of a professional registry examination conducted by Cardiovascular Credentialing International (CCI), or the National Society of Cardiopulmonary Technologists (NSCPT), or the American Registry of Diagnostic Medical Sonographers (ARDMS).

OR

Candidate must be registry-eligible and agree to obtain registry status within one year of the effective date of employment.

**III. COURSE SPECIFIC EQUIVALENCIES**

**A. COURSES LIMITED TO:**

**CVTE 205 – Clinical Practicum II**  
**CVTE 215 – Clinical Practicum III**

**B. EDUCATION/EXPERIENCE**

1. Graduate of an educational program in Cardiovascular Technology which has been approved by the Committee on Allied Health Education & Accreditation (CAHEA) or the National Society of Cardiopulmonary Technologists (NSCPT) and two years of full-time experience in teaching or clinical practice of Cardiovascular Technology.

OR

Four years of full-time experience in teaching or clinical practice of Cardiovascular Technology and verified minimum of 10 hours of continuing education per year for the two year most recent to employment.

**C. Certification/Registry**

1. Registered Cardiovascular Technologist as demonstrated by successful completion of a professional registry examination conducted by Cardiovascular Credentialing International (CCI), or the National Society of Cardiopulmonary Technologists (NSCPT), or the American Registry of Diagnostic Medical Sonographers (ARDMS).

OR

Candidate must be registry-eligible and agree to obtain registry status within one year of the effective date of employment.

# Appendix 12

## Subject WSCH Analysis Report

SDMS / 1-1" 16-2002 10:04:55 GROSSMO' COLLEGE  
 RUN ON: SUBJECT WSCH LYSIS  
 REPORT 1 JUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHOR. TERM CLASSES \*\*\*  
 DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CSIS196	070300	.167	72.00	431.13	48.00	287.42	66.66
CSIS250	070300	.200	150.00	750.00	66.00	330.00	44.00
CSIS251D	070300	.200	72.00	360.00	63.00	315.00	87.50
CSIS293	070300	.350	144.00	411.42	144.00	411.42	100.00
CSIS296	070300	.350	144.00	411.42	126.00	360.00	87.50
CSIS299	070300	.400	144.00	360.00	111.00	277.50	77.08
***** CSIS		16.297	8916.00	547.09	7212.50	442.56	80.89
CVTE100	121300	.133	120.00	902.25	86.00	646.61	71.66
CVTE101	121300	.267	240.00	898.87	172.00	644.19	71.66
CVTE102	121300	1.033	480.00	464.66	344.00	333.01	71.66
CVTE103	121300	.517	240.00	464.21	172.00	332.68	71.11
CVTE200	121300	.583	225.00	385.93	160.00	274.44	94.44
CVTE201	121300	.350	108.00	308.57	102.00	291.42	41.17
CVTE202	121300	.350	102.00	291.42	42.00	120.00	58.82
CVTE203	121300	.350	102.00	291.42	60.00	171.42	64.00
CVTE205	121300	2.100	750.00	357.14	480.00	228.57	68.35
***** CVTE		5.683	2367.00	416.50	1618.00	284.70	95.00
FS 110	130400	.200	120.00	600.00	114.00	570.00	107.50
FS 115	130400	.200	120.00	600.00	129.00	645.00	80.48
FS 120	130400	.400	246.00	615.00	198.00	495.00	114.28
FS 199	130400	.800	21.00	21.00	24.00	24.00	91.71
***** FS		.800	507.00	633.75	465.00	581.25	60.00
HESC110	219900	.200	90.00	450.00	54.00	270.00	93.33
HESC150	219900	.200	90.00	450.00	84.00	420.00	76.66
***** HESC		.400	180.00	450.00	138.00	345.00	100.00
MM 299	069900	.200	51.00	255.00	51.00	255.00	100.00
***** MM		.200	51.00	255.00	51.00	255.00	100.00
NURS000	120300	.133	37.00	37.00	37.00	37.00	114.28
NURS118	120300	.236	70.00	526.31	80.00	601.50	96.82
NURS120	120300	.225	850.50	262.75	823.50	254.41	66.15
NURS155A	120300	.089	292.50	1300.00	193.50	860.00	100.00
NURS199	120300	.089	18.00	18.00	18.00	18.00	118.18
NURS201	120300	.044	49.50	556.17	58.50	657.30	97.50
NURS203	120300	.016	480.00	234.81	468.00	228.94	80.00
NURS205	120300	.225	300.00	295.18	240.00	236.15	81.53
NURS255A	120300	.225	292.50	1300.00	238.50	1060.00	65.71
NURS265A	120300	.194	157.50	700.00	103.50	460.00	88.73
***** NURS		7.194	2547.50	354.09	2260.50	314.20	42.85
OTA 100	121800	.133	70.00	526.31	30.00	225.56	22.85
OTA 101	121800	.217	140.00	645.16	32.00	147.46	22.85
OTA 110	121800	.350	210.00	600.00	48.00	137.14	70.83
OTA 210	121800	.222	96.00	432.43	68.00	306.35	70.83
OTA 220	121800	.283	120.00	424.02	85.00	300.35	70.83
OTA 230	121800	.067	24.00	358.20	17.00	253.73	70.83



DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CSIS296	070300	.350	144.00	144.00	411.42	126.00	360.00	87.50	
CSIS297	070300	.350	144.00	144.00	411.42	96.00	274.28	66.66	
CSIS299	070300	.600	216.00	216.00	360.00	183.00	305.00	84.72	
*****	CSIS	16.619	8776.00	8776.00	528.07	7195.50	432.96	81.99	
CVTE107	121300	.067	25.00	25.00	373.13	15.00	223.88	60.00	
CVTE110	121300	.133	120.00	120.00	902.25	78.00	586.46	65.00	
CVTE111	121300	.267	240.00	240.00	898.87	156.00	584.26	65.00	
CVTE112	121300	1.033	480.00	480.00	464.66	304.00	294.28	63.33	
CVTE113	121300	.517	240.00	240.00	464.21	156.00	301.74	65.00	
CVTE210	121300	.583	300.00	300.00	514.57	155.00	265.86	51.66	
CVTE211	121300	.350	120.00	120.00	342.85	90.00	257.14	75.00	
CVTE212	121300	.350	90.00	90.00	257.14	48.00	137.14	53.33	
CVTE213	121300	.350	120.00	120.00	342.85	68.00	171.42	50.00	
CVTE215	121300	2.175	900.00	900.00	413.79	480.00	220.68	53.33	
CVTE299	121300	.067	50.00	50.00	746.26	10.00	149.25	20.00	
*****	CVTE	5.892	2685.00	2685.00	455.70	1552.00	263.40	57.80	
FS 110	130400	.200	120.00	120.00	600.00	111.00	555.00	92.50	
FS 115	130400	.200	120.00	120.00	600.00	102.00	510.00	85.00	
FS 120	130400	.400	270.00	270.00	675.00	213.00	532.50	78.88	
FS 299	130400	.267	155.00	155.00	580.52	62.00	232.20	40.00	
*****	FS	1.067	665.00	665.00	623.24	488.00	457.35	73.38	
HESC110	219900	.200	120.00	120.00	600.00	120.00	600.00	100.00	
HESC150	219900	.200	120.00	120.00	600.00	75.00	375.00	62.50	
HESC205	219900	.133	80.00	80.00	601.50	30.00	225.56	37.50	
HESC206	219900	.200	120.00	120.00	600.00	45.00	225.00	37.50	
*****	HESC	.733	440.00	440.00	600.27	270.00	368.34	61.36	
MM 299	069900	.200	60.00	60.00	300.00	54.00	270.00	90.00	
*****	MM	.200	60.00	60.00	300.00	54.00	270.00	90.00	
NURS118	120300	.133	270.00	270.00	275.84	58.00	436.09	5800.00	
NURS120	120300	.978	90.00	90.00	909.09	270.00	275.84	100.00	
NURS131	120300	.099	270.00	270.00	1200.00	85.50	863.63	95.00	
NURS155B	120300	.225	6.00	6.00	6.00	6.00	6.00	100.00	
NURS199	120300	.225	270.00	270.00	1200.00	108.00	480.00	40.00	
NURS255B	120300	.225	157.50	157.50	700.00	85.50	380.00	54.28	
NURS265B	120300	1.885	1063.50	1063.50	563.95	883.00	468.23	83.02	
*****	NURS	1.885	1063.50	1063.50	563.95	883.00	468.23	83.02	
OTA 100	121800	.133	70.00	70.00	526.31	32.00	240.60	45.71	
OTA 120	121800	.133	70.00	70.00	526.31	12.00	90.22	17.14	
OTA 130	121800	.350	210.00	210.00	600.00	36.00	102.85	17.14	
OTA 140	121800	.283	175.00	175.00	618.37	30.00	106.00	17.14	
*****	OTA	.899	525.00	525.00	583.98	110.00	122.35	20.95	
RESP116	121000	.200	108.00	108.00	540.00	45.00	225.00	41.66	
RESP118	121000	.425	135.00	135.00	317.64	105.00	247.05	77.77	

SKDS71  
 RUN ON 02-28-2002 09:39:51  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*  
 DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

GROSS COLLEGE SUBJECT WSCH *** ALL SHORT TERM CLASSES ***		EARNED WSCH		EARNED WSCH		EARNED WSCH		EARNED WSCH		EARNED WSCH		EARNED WSCH	
SUBJECT	TOP	TOTAL FTEF	MAX WSCH	WSCH/FTEF	MAX	WSCH/FTEF	EARNED WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH	WSCH/FTEF	% OF MAX
AOJ 101	210500	.312	157.50	504.64	125.00	400.51	125.00	125.00	125.00	125.00	400.51	79.36	
AOJ 104	210500	.993	759.38	764.19	236.25	237.74	236.25	236.25	236.25	236.25	237.74	31.11	
AOJ 199	210500		1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.13	100.00	
AOJ 250C	210500	.100	37.50	375.00	28.50	285.00	28.50	28.50	28.50	285.00	278.04	76.00	
*****	AOJ	1.405	955.51	679.69	390.88	278.04	390.88	390.88	390.88	390.88	278.04	40.90	
BOT 124	051400						14.00	14.00	14.00	14.00	14.00	1400.00	
*****	BOT						14.00	14.00	14.00	14.00	14.00	1400.00	
BUS 086	051400	.268	15.00	55.97	12.00	44.77	12.00	12.00	12.00	44.77	44.77	80.00	
BUS 120	050200	.267	200.00	749.06	208.00	779.02	208.00	208.00	208.00	779.02	779.02	104.00	
BUS 121	050200	.267	200.00	749.06	176.00	659.17	176.00	176.00	176.00	659.17	659.17	88.00	
BUS 164	051400	.133	60.00	451.12	32.00	240.60	32.00	32.00	32.00	240.60	240.60	53.33	
BUS 252	050900	.100	72.00	720.00	52.50	525.00	52.50	52.50	52.50	525.00	525.00	72.91	
BUS 256	050990	.133	100.00	751.87	66.00	496.24	66.00	66.00	66.00	496.24	496.24	66.00	
BUS 257	050990	.100	72.00	720.00	51.00	510.00	51.00	51.00	51.00	510.00	510.00	70.83	
*****	BUS	1.268	719.00	567.03	597.50	471.21	597.50	597.50	597.50	471.21	471.21	83.10	
CA 163	130630	.067	35.00	522.38	36.00	537.31	36.00	36.00	36.00	537.31	537.31	102.85	
CA 166	130630	.067	35.00	522.38	34.00	507.46	34.00	34.00	34.00	507.46	507.46	97.14	
*****	CA	.134	70.00	522.38	70.00	522.38	70.00	70.00	70.00	522.38	522.38	100.00	
CD 103	130510	.067	22.00	328.35	18.00	268.65	18.00	18.00	18.00	268.65	268.65	81.81	
CD 125	130510	.400	315.00	787.50	249.00	622.50	249.00	249.00	249.00	622.50	622.50	79.04	
CD 127	130510	.200	135.00	675.00	114.00	570.00	114.00	114.00	114.00	570.00	570.00	84.44	
CD 128	130510	.200	135.00	675.00	129.00	645.00	129.00	129.00	129.00	645.00	645.00	95.55	
CD 299	130510	.316	237.38	749.77	97.50	307.95	97.50	97.50	97.50	307.95	307.95	41.07	
*****	CD	1.183	844.38	713.39	607.50	513.26	607.50	607.50	607.50	513.26	513.26	71.94	
CSIS142	070300	.399	108.00	270.67	108.00	270.67	108.00	108.00	108.00	270.67	270.67	100.00	
CSIS143	070300	.399	108.00	270.67	88.00	220.55	88.00	88.00	88.00	220.55	220.55	81.48	
CSIS144	070300	.133	36.00	270.67	20.00	150.37	20.00	20.00	20.00	150.37	150.37	55.55	
CSIS145	070300	.133	36.00	270.67	30.00	225.56	30.00	30.00	30.00	225.56	225.56	83.33	
CSIS174B	070300	.266	148.00	556.39	54.00	203.00	54.00	54.00	54.00	203.00	203.00	36.48	
CSIS175B	070300	.133	100.00	751.87	44.00	330.82	44.00	44.00	44.00	330.82	330.82	44.00	
CSIS274B	070300	.266	98.00	368.42	43.00	161.65	43.00	43.00	43.00	161.65	161.65	43.87	
CSIS275B	070300	.133	100.00	751.87	40.00	300.75	40.00	40.00	40.00	300.75	300.75	40.00	
CSIS299	070300	.200	734.00	355.96	30.00	150.00	30.00	30.00	30.00	150.00	150.00	3000.00	
*****	CSIS	2.062	734.00	355.96	457.00	221.62	457.00	457.00	457.00	221.62	221.62	62.26	
CVTE225	121300	.150	69.00	460.00	51.00	340.00	51.00	51.00	51.00	340.00	340.00	73.91	
*****	CVTE	.150	69.00	460.00	51.00	340.00	51.00	51.00	51.00	340.00	340.00	73.91	
HESC150	219900	.200	60.00	300.00	28.50	142.50	28.50	28.50	28.50	142.50	142.50	47.50	
*****	HESC	.200	60.00	300.00	28.50	142.50	28.50	28.50	28.50	142.50	142.50	47.50	
NURS133	120300	1.592	384.00	241.06	351.60	220.72	351.60	351.60	351.60	220.72	220.72	91.56	
NURS135	120300	1.686	384.00	227.75	345.60	204.98	345.60	345.60	345.60	204.98	204.98	90.00	
NURS137	120300	1.684	384.00	227.97	351.60	208.73	351.60	351.60	351.60	208.73	208.73	91.56	

SKDS71-IN 27-2003 12:00:20 GROSSMONT COLLEGE  
 RUN ON: 01 SUBJECT WSCH ANALYSIS  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

*** CENSUS CLASSES ***									
SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH	% OF MAX
					WSCH/FTEF	WSCH/FTEF	WSCH/FTEF	WSCH/FTEF	
****	CSIS	15.855	8276.00	8276.00	521.98	6398.50	6398.50	403.56	77.31
CVTE100	121300	.133	120.00	120.00	902.25	110.00	110.00	827.06	91.66
CVTE101	121300	.267	240.00	240.00	898.87	220.00	220.00	823.97	91.66
CVTE102	121300	1.033	480.00	480.00	464.66	440.00	440.00	425.94	91.66
CVTE103	121300	.517	240.00	240.00	464.21	216.00	216.00	417.79	90.00
CVTE200	121300	.433	150.00	150.00	346.42	160.00	160.00	369.51	106.66
CVTE201	121300	.350	108.00	108.00	308.57	96.00	96.00	274.28	88.88
CVTE202	121300	.350	102.00	102.00	291.42	60.00	60.00	171.42	58.82
CVTE203	121300	.350	102.00	102.00	291.42	90.00	90.00	257.14	88.23
CVTE205	121300	1.875	750.00	750.00	400.00	555.00	555.00	296.00	74.00
CVTE208	121300	.183	75.00	75.00	409.83	30.00	30.00	163.93	40.00
****	CVTE	5.491	2367.00	2367.00	431.06	1977.00	1977.00	360.04	83.52
FS 110	130400	.200	150.00	150.00	750.00	135.00	135.00	675.00	90.00
FS 115	130400	.200	120.00	120.00	600.00	117.00	117.00	585.00	97.50
FS 120	130400	.400	285.00	285.00	712.50	246.00	246.00	615.00	86.31
****	FS	.800	555.00	555.00	693.75	498.00	498.00	622.50	89.72
HESC110	219900	.300	240.00	240.00	800.00	150.00	150.00	500.00	62.50
HESC150	219900	.200	90.00	90.00	450.00	93.00	93.00	465.00	103.33
HESC199	219900	.500	339.00	339.00	678.00	252.00	252.00	504.00	100.00
****	HESC	.500	339.00	339.00	678.00	252.00	252.00	504.00	74.33
NURS120	120300	5.119	877.50	877.50	171.41	1080.00	1080.00	210.97	123.07
NURS155A	120300	.225	292.50	292.50	1300.00	297.00	297.00	1320.00	101.53
NURS201	120300	.089	49.50	49.50	556.17	45.00	45.00	505.61	90.90
NURS203	120300	1.442	420.00	420.00	291.24	360.00	360.00	249.63	85.71
NURS255A	120300	.225	292.50	292.50	1300.00	148.50	148.50	660.00	50.76
NURS265A	120300	.225	157.50	157.50	700.00	76.50	76.50	340.00	48.57
****	NURS	7.325	2089.50	2089.50	285.24	2007.00	2007.00	273.98	96.05
OTA 100	121800	.133	70.00	70.00	526.31	58.00	58.00	436.09	82.85
OTA 101	121800	.217	140.00	140.00	645.16	52.00	52.00	239.63	37.14
OTA 110	121800	.350	210.00	210.00	600.00	78.00	78.00	222.85	37.14
OTA 210	121800	.222	96.00	96.00	432.43	20.00	20.00	90.09	20.83
OTA 220	121800	.283	120.00	120.00	424.02	25.00	25.00	88.33	20.83
OTA 230	121800	.067	24.00	24.00	358.20	5.00	5.00	74.62	20.83
****	OTA	1.272	660.00	660.00	518.86	238.00	238.00	187.10	36.06
RESP105	121000	.267	140.00	140.00	524.34	92.00	92.00	344.56	65.71
RESP108	121000	.800	270.00	270.00	337.50	234.00	234.00	292.50	86.66
RESP114	121000	.133	70.00	70.00	526.31	54.00	54.00	406.01	77.14
RESP115	121000	.267	120.00	120.00	449.43	56.00	56.00	209.73	46.66
RESP208	121000	.425	112.50	112.50	264.70	105.00	105.00	247.05	93.33
RESP222	121000	2.100	315.00	315.00	150.00	147.00	147.00	70.00	46.66
****	RESP	3.992	1027.50	1027.50	257.38	688.00	688.00	172.34	66.95
SLPA100	122000	.267	120.00	120.00	449.43	80.00	80.00	299.62	66.66
SLPA200	122000	.267	180.00	180.00	674.15	60.00	60.00	224.71	33.33

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE107	.067	25.00	373.13	30.00	447.76	120.00	
CVTE110	.133	120.00	902.25	102.00	766.91	85.00	
CVTE111	.267	240.00	898.87	204.00	764.04	85.00	
CVTE112	1.033	480.00	464.66	404.00	394.96	85.00	
CVTE113	.517	240.00	464.21	204.00	394.58	80.00	
CVTE210	.433	200.00	461.89	160.00	369.51	80.00	
CVTE211	.350	120.00	342.85	96.00	274.28	62.50	
CVTE212	.350	96.00	274.28	60.00	171.42	65.00	
CVTE213	.350	120.00	342.85	78.00	222.85	63.33	
CVTE215	2.250	900.00	400.00	570.00	253.33	62.50	
CVTE218	.183	48.00	262.29	40.00	163.93	40.00	
CVTE230	.133	100.00	751.87	30.00	300.75	73.70	
CVTE*** CVTE	6.066	2689.00	443.29	1982.00	326.73		
FS 110	.200	150.00	750.00	150.00	750.00	100.00	
FS 115	.400	300.00	750.00	186.00	465.00	62.00	
FS 120	.400	285.00	712.50	198.00	495.00	69.47	
FS*** FS	1.000	735.00	735.00	534.00	534.00	72.65	
MM 192	.350	144.00	411.42	102.00	291.42	70.83	
MM*** MM	.350	144.00	411.42	102.00	291.42	70.83	
NURS131	.165	120.00	724.63	105.00	634.05	87.50	
NURS155B	.225	360.00	1600.00	76.50	340.00	21.25	
NURS*** NURS	.390	480.00	1228.87	181.50	464.66	37.81	
OTA 100	.133	70.00	526.31	22.00	165.41	31.42	
OTA 120	.133	70.00	526.31	26.00	195.48	37.14	
OTA 130	.350	210.00	600.00	78.00	222.85	37.14	
OTA 140	.283	175.00	618.37	65.00	229.68	37.14	
OTA*** OTA	.899	525.00	583.98	191.00	212.45	36.38	
RESP116	.200	105.00	525.00	72.00	360.00	68.57	
RESP118	.650	450.00	692.30	187.50	288.46	41.66	
RESP122	2.250	315.00	140.00	216.00	96.00	68.57	
RESP205	.267	120.00	449.43	56.00	209.73	46.66	
RESP232	1.575	367.50	233.33	147.00	93.33	40.00	
RESP250	.200	105.00	525.00	72.00	360.00	68.57	
RESP268	.150	93.00	620.00	42.00	280.00	45.16	
RESP*** RESP	5.292	1555.50	293.93	792.50	149.75	50.94	
SLPA100	.267	140.00	524.34	60.00	224.71	42.85	
SLPA110	.267	140.00	524.34	48.00	179.77	34.28	
SLPA205	.267	140.00	524.34	48.00	179.77	34.28	
SLPA*** SLPA	.801	420.00	524.34	156.00	194.75	37.14	

16-2003 08:27:12  
SUBJECT WSCH  
REPORT 1 JUDGES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHOR

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.208	116.44	559.80	116.44	559.80	100.00
AOJ 101	210500	.083	37.03	446.14	31.11	374.81	84.01
AOJ 104	210500	.966	718.88	743.64	175.73	181.78	24.44
AOJ 110	210500	.200	150.00	750.00	84.00	420.00	56.00
AOJ 199	210500	.100	1.50	1.50	1.50	1.50	100.00
AOJ 250B	210500	.067	60.00	60.00	39.00	390.00	65.00
AOJ 262A	210500	.067	45.00	671.64	13.00	194.02	28.88
*****	AOJ	1.624	1128.85	694.80	460.78	283.60	40.81
BOT 101A	051400	.163			111.00	680.98	11100.00
BOT 102	051400	.163			3.00	3.00	300.00
*****	BOT				114.00	699.38	11400.00
BUS 086	051400	.536	22.50	41.97	79.50	148.32	353.33
BUS 120	050200	.267	200.00	749.06	184.00	689.13	92.00
BUS 121	050200	.267	200.00	749.06	168.00	629.21	84.00
BUS 252	050900	.100	72.00	720.00	51.00	510.00	70.83
BUS 256	050990	.133	68.75	516.91	37.13	279.17	54.00
BUS 257	050990	.100	36.00	360.00	26.25	262.50	72.91
*****	BUS	1.403	599.25	427.12	545.88	389.08	91.09
CA 163	130630	.067	35.00	522.38	26.00	388.05	74.28
CA 166	130630	.067	35.00	522.38	25.00	373.13	71.42
*****	CA	.134	70.00	522.38	51.00	380.59	72.85
CD 125	130510	.400	330.00	825.00	204.00	510.00	61.81
CD 128	130510	.200	135.00	675.00	132.00	660.00	97.77
CD 138	130510	.200	189.00	945.00	157.50	787.50	83.33
CD 299	130510	.134	90.00	671.64	68.00	507.46	75.55
*****	CD	.934	744.00	796.57	561.50	601.17	75.47
CSIS105	070300	.283			99.75	352.47	9975.00
CSIS132	070300	.142			50.25	353.87	5025.00
CSIS142	070300	.399	128.00	320.80	136.00	340.85	106.25
CSIS143	070300	.266	104.00	390.97	66.00	248.12	63.46
CSIS144	070300	.133	48.00	360.90	30.00	225.56	62.50
CSIS145	070300	.133	48.00	360.90	30.00	225.56	62.50
CSIS172	070300	.133	100.00	751.87	56.00	421.05	78.00
CSIS173B	070300	.133	100.00	751.87	78.00	586.46	78.00
CSIS174B	070300	.266	48.00	180.45	60.00	225.56	125.00
CSIS186A	070300	.033			10.00	303.03	1000.00
CSIS186B	070300	.033			10.00	303.03	1000.00
CSIS274B	070300	.266	48.00	180.45	62.00	233.08	129.16
CSIS280	070300	.133			39.00	293.23	3900.00
CSIS299	070300	.342	624.00	231.53	104.38	305.20	10438.00
*****	CSIS	2.695			831.38	308.48	133.23
CVTE225	121300	.150	75.00	500.00	66.00	440.00	88.00

SKDS7I-I  
 RUN ON: 14-2004 14:11:59  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

GROSSMONT COLLEGE  
 SUBJECT WSCH ANALYSIS

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CSIS296 070300	.350	144.00	411.42	132.00	377.14	91.66	
CSIS299 070300	.200	72.00	360.00	48.00	240.00	66.66	
***** CSIS	12.923	6858.00	530.66	5683.00	439.74	82.86	
CVTE100 121300	.133	120.00	902.25	106.00	796.99	88.33	
CVTE101 121300	.267	240.00	898.87	212.00	794.00	88.33	
CVTE102 121300	1.033	480.00	464.66	424.00	410.45	88.33	
CVTE103 121300	.517	240.00	464.21	212.00	410.05	88.33	
CVTE200 121300	.433	200.00	461.89	186.00	429.56	93.00	
CVTE201 121300	.350	108.00	308.57	108.00	308.57	100.00	
CVTE202 121300	.350	102.00	291.42	108.00	308.57	105.88	
CVTE203 121300	.350	102.00	291.42	72.00	205.71	70.58	
CVTE205 121300	2.400	750.00	312.50	720.00	300.00	96.00	
CVTE208 121300	.183	75.00	409.83	54.00	295.08	72.00	
***** CVTE	6.016	2417.00	401.76	2202.00	366.02	91.10	
FS 110 130400	.200	120.00	600.00	150.00	750.00	125.00	
FS 115 130400	.400	135.00	675.00	114.00	570.00	84.44	
FS 120 130400	.800	246.00	615.00	222.00	555.00	90.24	
***** FS	.800	501.00	626.25	486.00	607.50	97.00	
HESC110 219900	.200	90.00	450.00	84.00	420.00	93.33	
HESC150 219900	.400	90.00	450.00	51.00	255.00	56.66	
***** HESC	.400	180.00	450.00	135.00	337.50	75.00	
NURS120 120300	3.380	810.00	239.60	796.50	235.60	98.33	
NURS201 120300	.089	49.50	556.17	45.00	505.61	90.90	
NURS203 120300	1.583	480.00	303.22	408.00	257.73	85.00	
NURS255A 120300	.225	292.50	1300.00	256.50	140.00	87.69	
NURS265A 120300	.225	157.50	700.00	108.00	480.00	68.57	
***** NURS	5.502	1789.50	325.20	1614.00	293.31	90.19	
OTA 100 121800	.133	70.00	526.31	44.00	330.82	62.85	
OTA 101 121800	.217	140.00	645.16	68.00	313.36	48.57	
OTA 110 121800	.350	210.00	600.00	90.00	257.14	42.85	
OTA 210 121800	.222	96.00	432.43	44.00	198.19	45.83	
OTA 220 121800	.283	120.00	424.02	55.00	194.34	45.83	
OTA 230 121800	.067	24.00	358.20	11.00	164.17	45.83	
***** OTA	1.272	660.00	518.86	312.00	245.28	47.27	
RESP105 121000	.267	140.00	524.34	88.00	329.58	62.85	
RESP108 121000	.800	270.00	337.50	198.00	247.50	73.33	
RESP114 121000	.133	70.00	526.31	46.00	345.86	65.71	
RESP115 121000	.267	120.00	449.43	88.00	329.58	73.33	
RESP208 121000	.650	225.00	346.15	165.00	253.84	73.33	
RESP222 121000	2.100	315.00	150.00	231.00	110.00	73.33	
***** RESP	4.217	1140.00	270.33	816.00	193.50	71.57	
SLPA100 122000	.267	140.00	524.34	56.00	209.73	40.00	
SLPA115 122000	.133	60.00	451.12	32.00	240.60	53.33	

SKUS/1-1  
RUN ON: 21-2004 11:11:02  
REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
***** CA	.267	110.00	411.98	99.00	370.78	90.00
CD 103	.067	30.00	447.76	43.00	641.79	143.33
CD 107	.150	60.00	400.00	69.00	460.00	115.00
CD 110	.150	60.00	400.00	21.00	140.00	35.00
CD 123	.200	108.00	540.00	90.00	450.00	83.33
CD 124	.200	150.00	750.00	147.00	735.00	98.00
CD 125	2.200	1530.00	695.45	1374.00	624.54	89.80
CD 126	.400	270.00	675.00	201.00	502.50	74.44
CD 127	.400	270.00	675.00	126.00	315.00	46.66
CD 128	.200	135.00	675.00	129.00	645.00	95.55
CD 129	.400	270.00	675.00	168.00	420.00	62.22
CD 130	.200	150.00	750.00	105.00	525.00	70.00
CD 131	.600	390.00	650.00	351.00	585.00	90.00
CD 132	.200	60.00	300.00	60.00	300.00	100.00
CD 134	.200	150.00	750.00	102.00	510.00	68.00
CD 138	.200	108.00	540.00	81.00	405.00	75.00
CD 141	.200	135.00	675.00	123.00	615.00	91.11
CD 145	.200	108.00	540.00	42.00	210.00	38.88
CD 174	.200	75.00	375.00	96.00	480.00	128.00
***** CD	6.367	4059.00	637.50	3328.00	522.69	81.99
CSIS105	.566	355.00	627.20	190.00	335.68	53.52
CSIS110	4.200	2820.00	671.42	2208.00	525.71	78.29
CSIS112	.400	144.00	360.00	99.00	247.50	68.75
CSIS113	.400	222.00	555.00	123.00	307.50	55.40
CSIS114	.283	140.00	494.69	65.00	229.68	46.42
CSIS119	.600	282.00	470.00	222.00	370.00	78.72
CSIS132	.142	60.00	422.53	37.50	264.08	62.50
CSIS134	.566	370.00	653.71	285.00	503.53	77.02
CSIS135	.283	120.00	424.02	80.00	282.68	66.66
CSIS136	.283	120.00	424.02	95.00	335.68	79.16
CSIS137	.283	120.00	424.02	105.00	371.02	87.50
CSIS138	.283	120.00	424.02	90.00	318.02	75.00
CSIS151A	.200	72.00	360.00	69.00	345.00	95.83
CSIS151D	.600	294.00	490.00	225.00	375.00	76.53
CSIS165	.350	144.00	411.42	90.00	257.14	62.50
CSIS190	.350	144.00	411.42	108.00	308.57	75.00
CSIS195	.178	72.00	404.49	60.00	337.07	83.33
CSIS220	.200	90.00	450.00	24.00	120.00	26.66
CSIS251A	.200	72.00	360.00	66.00	330.00	91.66
CSIS280	.133	40.00	300.75	24.00	180.45	60.00
CSIS293	.700	288.00	411.42	276.00	394.28	95.83
CSIS296	.350	144.00	411.42	120.00	342.85	83.33
CSIS297	.350	144.00	411.42	108.00	308.57	75.00
CSIS299	.200	72.00	360.00	57.00	285.00	79.16
***** CSIS	12.100	6449.00	532.97	4826.50	398.88	74.84
CVTE107	.067	25.00	373.13	29.00	432.83	116.00
CVTE110	.133	120.00	902.25	94.00	706.76	78.33
CVTE111	.267	240.00	898.87	188.00	704.11	78.33

GROSSMC COLLEGE  
ANALYSIS

SKD571: 02-21-2004 11:11:02  
RUN ON: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*  
REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES  
\*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH /FTEF	EARNED WSCH	EARNED WSCH /FTEF	% OF MAX
CVTE112	121300	1.033	480.00	464.66	376.00	363.98	78.33
CVTE113	121300	.584	240.00	410.95	188.00	321.91	78.33
CVTE210	121300	.433	200.00	461.89	179.00	413.39	89.50
CVTE211	121300	.350	120.00	342.85	108.00	308.57	90.00
CVTE212	121300	.350	96.00	274.28	102.00	291.42	106.25
CVTE213	121300	.350	120.00	342.85	66.00	188.57	55.00
CVTE215	121300	2.400	900.00	375.00	69.00	287.50	76.66
CVTE218	121300	.183	48.00	262.29	51.00	278.68	106.25
CVTE230	121300	.133	100.00	751.87	34.00	255.63	34.00
***** CVTE		6.283	2689.00	427.98	2105.00	335.03	78.28
FS 110	130400	.200	150.00	750.00	144.00	720.00	96.00
FS 115	130400	.200	150.00	750.00	156.00	780.00	104.00
FS 120	130400	.400	285.00	712.50	225.00	562.50	78.94
***** FS		.800	585.00	731.25	525.00	656.25	89.74
NURS131	120300	.177	90.00	506.75	88.50	498.31	98.33
NURS155B	120300	.225	270.00	1200.00	88.50	219.82	24.58
***** NURS		.402	360.00	894.18			
OTA 120	121800	.133	70.00	526.31	28.00	210.52	40.00
OTA 130	121800	.350	210.00	600.00	84.00	240.00	40.00
OTA 140	121800	.283	175.00	618.37	70.00	247.34	40.00
***** OTA		.766	455.00	593.99	182.00	237.59	40.00
RESP116	121000	.200	105.00	525.00	54.00	270.00	51.42
RESP118	121000	.650	450.00	692.30	142.50	219.23	31.66
RESP122	121000	1.800	315.00	175.00	162.00	90.00	51.42
RESP199	121000	.267	9.00	9.00	9.00	9.00	100.00
RESP205	121000	.267	120.00	449.43	80.00	299.62	66.66
RESP232	121000	.200	367.50	175.00	210.00	100.00	57.14
RESP250	121000	.200	105.00	525.00	54.00	270.00	51.42
RESP268	121000	.150	93.00	620.00	60.00	400.00	64.51
***** RESP		5.367	1564.50	291.50	771.50	143.74	49.31
SLPA100	122000	.267	140.00	524.34	56.00	209.73	40.00
SLPA200	122000	.267	140.00	524.34	48.00	179.77	34.28
***** SLPA		.534	280.00	524.34	104.00	194.75	37.14
***** BUSINESS AND PROFESSIONAL STUDIES *****							
		52.663	28243.50	536.30	22862.50	434.12	80.94



SKDS7I-I  
 RUN ON: 21-2004 11:11:02  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

GROSSMONT COLLEGE  
 SUBJECT WSCH ANALYSIS

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.233	138.38	593.90	126.08	541.11	91.11
AOJ 101	210500	.083	59.25	713.85	33.58	404.57	56.67
AOJ 110	210500	.200	150.00	750.00	81.00	405.00	54.00
AOJ 142	210500	.200	150.00	750.00	102.00	510.00	68.00
AOJ 251A	210500	.167	100.00	598.80	87.50	523.95	87.50
AOJ 251B	210500	.167	80.00	479.04	75.00	449.10	93.75
AOJ 299	210500	.949	721.97	760.12	385.05	405.40	53.33
*****	AOJ	1.999	1399.60	699.86	890.21	445.14	63.60
BUS 086	051400	.267	20.00	74.85	52.00	194.61	260.00
BUS 120	050200	.267	200.00	749.06	212.00	794.00	106.00
BUS 121	050200	.267	200.00	749.06	192.00	719.10	96.00
BUS 252	050900	.100	72.00	720.00	34.50	345.00	47.91
BUS 256	050990	.133	99.69	749.54	47.85	359.77	47.99
BUS 257	050990	.100	36.00	360.00	19.50	195.00	54.16
*****	BUS	1.134	627.69	553.42	557.85	491.84	88.87
CA 163	130630	.067	35.00	522.38	33.00	492.53	94.28
CA 166	130630	.067	35.00	522.38	28.00	417.91	80.00
*****	CA	.134	70.00	522.38	61.00	455.22	87.14
CD 125	130510	.400	315.00	787.50	213.00	532.50	67.61
CD 128	130510	.200	135.00	675.00	117.00	585.00	86.66
CD 299	130510	.067	45.00	671.64	31.00	462.68	68.88
*****	CD	.667	495.00	742.12	361.00	541.22	72.92
CSIS142	070300	.266	104.00	390.97	92.00	345.86	88.46
CSIS143	070300	.266	104.00	390.97	82.00	308.27	78.84
CSIS144	070300	.133	48.00	360.90	28.00	210.52	58.33
CSIS145	070300	.133	48.00	360.90	34.00	255.63	70.83
CSIS172	070300	.133	100.00	751.87	34.00	255.63	34.00
CSIS173B	070300	.133	100.00	751.87	88.00	661.65	88.00
CSIS174B	070300	.133	48.00	360.90	38.00	285.71	79.16
CSIS274B	070300	.133	48.00	360.90	40.00	300.75	83.33
*****	CSIS	1.330	600.00	451.12	436.00	327.81	72.66
CVTE225	121300	.150	75.00	500.00	78.00	520.00	104.00
*****	CVTE	.150	75.00	500.00	78.00	520.00	104.00
HESC205	219900	.200	150.00	750.00	75.00	375.00	50.00
HESC206	219900	.200	150.00	750.00	72.00	360.00	48.00
*****	HESC	.400	300.00	750.00	147.00	367.50	49.00
NURS110	120300	.383	174.57	455.79	139.65	364.62	79.99
NURS117	120300	.066	35.00	530.30	21.00	318.18	60.00
NURS119	120300	.067	36.00	537.31	13.00	194.02	36.11
NURS133	120300	1.684	384.00	228.00	358.80	213.03	93.43
NURS135	120300	1.685	359.25	213.12	335.25	198.89	93.31
NURS137	120300	1.638	359.25	219.20	323.33	197.28	90.00

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH	% OF MAX
***** CSIS	10.709	5706.00	532.82	4601.00	429.63	80.63			
CVTE100	.133	120.00	902.25	110.00	827.06	91.66			
CVTE101	.267	240.00	898.87	220.00	823.97	91.66			
CVTE102	1.033	480.00	464.66	440.00	425.94	91.66			
CVTE103	.517	240.00	464.21	220.00	425.53	91.66			
CVTE200	.433	150.00	346.42	176.00	406.46	117.33			
CVTE201	.350	108.00	308.57	96.00	274.28	88.88			
CVTE202	.350	102.00	291.42	108.00	308.57	105.88			
CVTE203	.350	102.00	291.42	72.00	205.71	70.58			
CVTE205	2.075	750.00	361.44	690.00	332.53	92.00			
CVTE208	.183	75.00	409.83	57.00	311.47	76.00			
***** CVTE	5.691	2367.00	415.91	2189.00	384.64	92.47			
FS 110	.200	135.00	675.00	141.00	705.00	104.44			
FS 115	.200	135.00	675.00	114.00	570.00	84.44			
FS 120	.400	285.00	712.50	177.00	442.50	62.10			
***** FS	.800	555.00	693.75	432.00	540.00	77.83			
HESC110	.200	90.00	450.00	84.00	420.00	93.33			
HESC150	.200	90.00	450.00	69.00	345.00	76.66			
***** HESC	.400	180.00	450.00	153.00	382.50	85.00			
NURS000	2.408	1020.00	423.55	37.00	37.00	3700.00			
NURS120	.089	52.50	589.88	42.00	282.36	66.66			
NURS201	1.122	420.00	374.33	336.00	471.91	80.00			
NURS203	.225	292.50	1300.00	211.50	299.46	80.00			
NURS255A	.225	157.50	700.00	90.00	940.00	72.30			
NURS255B	.225	157.50	700.00	108.00	400.00	57.14			
NURS265A	.225	157.50	700.00	108.00	400.00	68.57			
***** NURS	4.294	2100.00	489.03	1504.50	350.35	71.64			
OTA 100	.133	70.00	526.31	36.00	270.67	51.42			
OTA 101	.217	140.00	645.16	56.00	258.06	40.00			
OTA 110	.350	210.00	600.00	84.00	240.00	40.00			
OTA 210	.222	96.00	432.43	52.00	234.23	54.16			
OTA 220	.283	120.00	424.02	65.00	229.68	54.16			
OTA 230	.067	24.00	358.20	13.00	194.02	54.16			
***** OTA	1.272	660.00	518.86	306.00	240.56	46.36			
RESP105	.267	140.00	524.34	172.00	644.19	122.85			
RESP108	1.100	405.00	368.18	387.00	351.81	95.55			
RESP114	.133	90.00	676.69	86.00	646.61	95.55			
RESP115	.267	120.00	449.43	80.00	299.62	66.66			
RESP208	.650	225.00	346.15	142.50	219.23	63.33			
RESP222	2.100	315.00	150.00	199.50	95.00	63.33			
***** RESP	4.517	1295.00	286.69	1067.00	236.21	82.39			
SLPA100	.267	140.00	524.34	100.00	374.53	71.42			
SLPA115	.133	70.00	526.31	40.00	300.75	57.14			
SLPA205	.267	140.00	524.34	56.00	209.73	40.00			

SKDS71-IN-  
 RUN ON: 05-2006 08:19:56  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

GROSSMONT COLLEGE  
 SUBJECT WSCH FYSIS

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH	% OF MAX
CA 167	130630	.200	135.00	675.00	72.00	360.00	53.33	
CA 167	CA	.200	135.00	675.00	72.00	360.00	53.33	
CD 103	130500	.067	50.00	746.26	21.00	313.43	42.00	
CD 106	130500	.150	66.00	440.00	111.00	740.00	168.18	
CD 123	130500	.200	135.00	675.00	111.00	555.00	82.22	
CD 124	130500	.200	135.00	675.00	99.00	495.00	73.33	
CD 125	130500	2.400	1713.00	713.75	1473.00	613.75	85.98	
CD 127	130500	.200	135.00	675.00	102.00	510.00	75.55	
CD 129	130500	.400	270.00	675.00	138.00	345.00	51.11	
CD 130	130500	.200	135.00	675.00	141.00	705.00	104.44	
CD 131	130500	.600	420.00	700.00	318.00	530.00	75.71	
CD 132	130500	.200	75.00	375.00	36.00	180.00	48.00	
CD 134	130500	.200	150.00	750.00	90.00	450.00	60.00	
CD 136	130500	.200	75.00	375.00	57.00	285.00	76.00	
CD 141	130500	.200	135.00	675.00	84.00	420.00	62.22	
CD 143	130500	.200	135.00	675.00	102.00	510.00	75.55	
CD 145	130500	.200	135.00	675.00	66.00	330.00	48.88	
CD 299	130500	.200	135.00	675.00	75.00	375.00	55.55	
CD 299	CD	5.817	3899.00	670.27	3024.00	519.85	77.55	
CSIS105	070100	.566	385.00	680.21	205.00	362.19	53.24	
CSIS110	070100	2.800	1920.00	685.71	1554.00	555.00	80.93	
CSIS112	070100	.400	144.00	360.00	114.00	285.00	79.16	
CSIS113	070100	.283	162.00	405.00	87.00	217.50	53.70	
CSIS114	070100	.350	120.00	424.02	65.00	229.68	54.16	
CSIS115A	070100	.400	144.00	411.42	120.00	342.85	83.33	
CSIS119	070100	.283	144.00	360.00	117.00	292.50	81.25	
CSIS134	070100	.283	250.00	883.39	215.00	759.71	86.00	
CSIS135	070100	.283	120.00	424.02	90.00	318.02	75.00	
CSIS137	070100	.217	120.00	424.02	40.00	282.68	66.66	
CSIS141	070100	.200	72.00	360.00	57.00	285.00	79.16	
CSIS151A	070100	.600	294.00	490.00	225.00	375.00	76.53	
CSIS151D	070100	.200	72.00	360.00	72.00	360.00	100.00	
CSIS160	070100	.350	144.00	411.42	126.00	360.00	87.50	
CSIS165	070100	.350	144.00	411.42	102.00	291.42	70.83	
CSIS195	070100	.167	72.00	431.13	42.00	251.49	58.33	
CSIS2251D	070100	.200	72.00	360.00	48.00	240.00	66.66	
CSIS276	070100	.200	72.00	360.00	42.00	210.00	58.33	
CSIS293	070100	.350	288.00	411.42	204.00	291.42	70.83	
CSIS296	070100	.200	144.00	411.42	114.00	325.71	79.16	
CSIS299	070100	.200	84.00	420.00	60.00	300.00	71.42	
CSIS299	CSIS	9.782	5079.00	519.21	3779.00	386.32	74.40	
CVTE100	121300	.133	120.00	902.25	102.00	766.91	85.00	
CVTE101	121300	.267	240.00	898.87	204.00	764.04	85.00	
CVTE102	121300	1.033	480.00	464.66	408.00	394.96	85.00	
CVTE103	121300	.517	240.00	464.21	204.00	394.58	85.00	
CVTE200	121300	.433	150.00	346.42	171.00	394.91	114.00	

SKDS71-INT  
 RUN ON: 05-2006 08:19:56  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

GROSSMONT COLLEGE  
 YSIS  
 RM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE201	121300	.350	96.00	96.00	274.28	96.00	274.28	100.00
CVTE202	121300	.350	96.00	96.00	274.28	108.00	308.57	112.50
CVTE203	121300	.350	102.00	102.00	291.42	72.00	205.71	70.58
CVTE205	121300	2.225	750.00	750.00	337.07	675.00	303.37	90.00
CVTE208	121300	.183	48.00	48.00	262.29	54.00	295.08	112.50
CVTE209	121300	.200	150.00	150.00	750.00	60.00	300.00	40.00
CVTE299	121300	6.041	2472.00	2472.00	409.20	2154.00	356.56	87.13
FS 110	130100	.200	135.00	135.00	675.00	129.00	645.00	95.55
FS 115	130100	.400	300.00	300.00	750.00	189.00	472.50	63.00
FS 120	130100	.400	285.00	285.00	712.50	159.00	397.50	55.78
FS		1.000	720.00	720.00	720.00	477.00	477.00	66.25
HESC110	219900	.200	90.00	90.00	450.00	96.00	480.00	106.66
HESC150	219900	.200	90.00	90.00	450.00	63.00	315.00	70.00
HESC		.400	180.00	180.00	450.00	159.00	397.50	88.33
NURS120	120300	2.966	680.00	680.00	229.26	680.00	229.26	100.00
NURS155A	120300	.225	270.00	270.00	1200.00	4.50	20.00	1.66
NURS203	120300	1.700	420.00	420.00	247.05	444.00	261.17	105.71
NURS265A	120300	.225	157.50	157.50	700.00	130.50	580.00	82.85
NURS		5.116	1527.50	1527.50	298.57	1259.00	246.09	82.42
OTA 100	121800	.133	70.00	70.00	526.31	66.00	496.24	94.28
OTA 101	121800	.217	140.00	140.00	645.16	92.00	423.96	65.71
OTA 110	121800	.350	210.00	210.00	600.00	138.00	394.28	65.71
OTA 210	121800	.222	96.00	96.00	432.43	36.00	162.16	37.50
OTA 220	121800	.283	120.00	120.00	424.02	45.00	159.01	37.50
OTA 230	121800	.067	24.00	24.00	358.20	9.00	134.32	37.50
OTA		1.272	660.00	660.00	518.86	386.00	303.45	58.48
RESP105	121000	.267	180.00	180.00	674.15	172.00	644.19	95.55
RESP108	121000	1.100	405.00	405.00	368.18	387.00	351.81	95.55
RESP114	121000	.133	100.00	100.00	751.87	86.00	646.61	86.00
RESP201	121000	.267	140.00	140.00	524.34	136.00	509.36	97.14
RESP208	121000	.650	240.00	240.00	369.23	255.00	392.30	106.25
RESP222	121000	3.150	367.50	367.50	116.66	357.00	113.33	97.14
RESP		5.567	1432.50	1432.50	257.31	1393.00	250.22	97.24
SLPA100	122000	.267	140.00	140.00	524.34	60.00	224.71	42.85
SLPA115	122000	.133	70.00	70.00	526.31	26.00	195.48	37.14
SLPA199	122000	.267	21.00	21.00	21.00	21.00	21.00	100.00
SLPA205	122000	.267	140.00	140.00	524.34	40.00	149.81	28.57
SLPA216	122000	.067	20.00	20.00	298.50	10.00	149.25	50.00
SLPA218	122000	.067	20.00	20.00	298.50	10.00	149.25	50.00
SLPA		.801	411.00	411.00	513.10	167.00	208.48	40.63

REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHO. TERM CLASSES \*\*\*  
 GROSSMONT COLLEGE  
 SUBJECT WSCH ALYSIS  
 TERM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES  
 \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CA 280	.067	20.00	20.00	298.50	19.00	283.58	95.00	
CA 130630	.267	110.00	110.00	411.98	94.00	352.05	85.45	
CD 102	.067	30.00	30.00	447.76	15.00	223.88	50.00	
CD 109	.150	60.00	60.00	400.00	72.00	480.00	120.00	
CD 111	.150	60.00	60.00	400.00	27.00	180.00	45.00	
CD 123	.200	135.00	135.00	675.00	126.00	630.00	93.33	
CD 125	2.800	1935.00	1935.00	691.07	1503.00	536.78	77.67	
CD 126	.200	135.00	135.00	675.00	114.00	570.00	84.44	
CD 127	.200	270.00	270.00	675.00	168.00	420.00	62.22	
CD 128	.200	135.00	135.00	675.00	96.00	480.00	71.11	
CD 129	.200	105.00	105.00	525.00	63.00	315.00	60.00	
CD 130	.200	150.00	150.00	750.00	174.00	870.00	116.00	
CD 131	.200	420.00	420.00	700.00	330.00	550.00	78.57	
CD 132	.200	60.00	60.00	300.00	45.00	225.00	75.00	
CD 134	.200	135.00	135.00	675.00	129.00	645.00	95.55	
CD 141	.200	135.00	135.00	675.00	172.00	360.00	53.33	
CD 143	.200	135.00	135.00	675.00	135.00	675.00	100.00	
CD 145	.200	111.00	111.00	555.00	57.00	285.00	51.35	
CD 174	.200	75.00	75.00	375.00	45.00	225.00	60.00	
CD 199	6.367	4089.00	4089.00	642.21	3174.00	498.50	77.62	
CSIS105	.566	355.00	355.00	627.20	185.00	326.85	52.11	
CSIS110	2.800	1920.00	1920.00	685.71	1536.00	548.57	80.00	
CSIS112	.200	144.00	144.00	360.00	99.00	247.50	68.75	
CSIS113	.200	90.00	90.00	450.00	54.00	270.00	60.00	
CSIS114	.283	140.00	140.00	494.69	85.00	300.35	60.71	
CSIS119	.400	144.00	144.00	360.00	114.00	300.00	79.16	
CSIS132	.142	60.00	60.00	422.53	40.00	281.69	66.66	
CSIS134	.566	370.00	370.00	653.71	305.00	538.86	82.43	
CSIS135	.200	120.00	120.00	424.02	100.00	353.35	83.33	
CSIS136	.283	120.00	120.00	424.02	75.00	265.01	62.50	
CSIS137	.283	120.00	120.00	424.02	95.00	335.68	79.16	
CSIS138	.283	120.00	120.00	424.02	70.00	247.34	60.83	
CSIS140	.250	144.00	144.00	424.02	90.00	257.14	66.66	
CSIS151A	.200	294.00	294.00	360.00	48.00	240.00	66.66	
CSIS151D	.200	72.00	72.00	490.00	225.00	375.00	75.00	
CSIS160	.200	144.00	144.00	360.00	72.00	360.00	100.00	
CSIS190	.250	144.00	144.00	411.42	73.00	227.85	54.16	
CSIS195	.167	72.00	72.00	431.13	48.00	287.42	66.66	
CSIS220	.133	120.00	120.00	600.00	42.00	210.00	35.00	
CSIS280	.700	288.00	288.00	300.75	30.00	225.56	75.00	
CSIS293	.350	144.00	144.00	411.42	204.00	291.42	70.83	
CSIS296	.350	144.00	144.00	411.42	60.00	171.42	41.66	
CSIS297	10.089	5237.00	5237.00	519.08	3799.00	376.54	72.54	
CVTE107	.067	25.00	25.00	373.13	22.00	328.35	88.00	
CVTE110	.133	120.00	120.00	902.25	98.00	736.84	81.66	

\*\*\* CENSUS CLASSES \*\*\*

4-2006 11:33:31  
 SUBJECT WSCH A  
 DES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT

\*\*\* DAILY CENSUS CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.208	138.38	665.28	95.33	458.31	68.89	
AOJ 101	210500	.083	44.44	535.42	25.18	303.37	56.66	
AOJ 104	210500	.950	717.19	754.93	270.94	285.20	37.77	
AOJ 107	210500	.979	605.31	618.29	665.84	680.12	109.99	
AOJ 110	210500	.400	261.00	652.50	174.00	435.00	66.66	
AOJ 142	210500	.200	135.00	675.00	75.00	375.00	55.55	
*****	AOJ	2.820	1901.32	674.22	1306.29	463.22	68.70	
BUS 120	050200	.534	300.00	561.79	296.00	554.30	98.66	
BUS 121	050200	.534	400.00	749.06	356.00	666.66	89.00	
BUS 252	050900	.100	72.00	720.00	27.00	270.00	37.50	
BUS 256	050800	.133	99.69	749.54	31.90	239.84	31.99	
BUS 257	050800	.100	36.00	360.00	13.50	135.00	37.50	
*****	BUS	1.401	907.69	647.88	724.40	517.05	79.80	
CA 163	130630	.067	35.00	522.38	35.00	522.38	100.00	
CA 166	130630	.067	35.00	522.38	26.00	388.05	74.28	
*****	CA	.134	70.00	522.38	61.00	455.22	87.14	
CD 125	130500	.200	180.00	900.00	174.00	870.00	96.66	
CD 129	130500	.200	135.00	675.00	81.00	405.00	60.00	
CD 137	130500	.200	135.00	675.00	105.00	525.00	77.77	
CD 299	130500	.133	90.00	676.69	50.00	375.93	55.55	
*****	CD	.733	540.00	736.69	410.00	559.34	75.92	
CSIS110	070100	.700	540.00	771.42	438.00	625.71	81.11	
CSIS142	070100	.266	104.00	390.97	74.00	278.19	71.15	
CSIS143	070100	.266	104.00	390.97	50.00	187.96	48.07	
CSIS172	070100	.133	100.00	751.87	48.00	360.90	48.00	
CSIS173B	070100	.133	100.00	751.87	96.00	721.80	96.00	
CSIS174B	070100	.133	48.00	360.90	22.00	165.41	45.83	
CSIS274B	070100	.133	48.00	360.90	20.00	150.37	41.66	
CSIS299	070100	.266	112.00	421.05	64.00	240.60	57.14	
*****	CSIS	2.030	1155.00	569.45	812.00	400.00	70.24	
CVTE225	121300	.150	75.00	500.00	39.00	260.00	52.00	
CVTE299	121300	.200	225.00	1125.00	75.00	375.00	33.33	
*****	CVTE	.350	300.00	857.14	114.00	325.71	38.00	
HESC205	219900	.200	150.00	750.00	39.00	195.00	26.00	
HESC206	219900	.200	150.00	750.00	51.00	255.00	34.00	
*****	HESC	.400	300.00	750.00	90.00	225.00	30.00	
NURS110	123010	.542	212.50	391.84	243.75	449.47	114.70	
NURS117	123010	.066	30.00	454.54	29.50	446.96	98.33	
NURS118	123010	.067	18.00	268.65	23.00	343.28	127.77	
NURS119	123010	.067	15.00	522.38	38.00	567.16	108.57	
NURS130	123010	.067	360.00	225.00	324.00	202.50	90.00	
NURS132	123010	1.600	360.00	225.00	333.00	208.12	92.50	

SP 205-

REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*  
 DIVISION - BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE111	.267	240.00	898.87	196.00	734.08	81.66
CVTE112	1.033	480.00	464.66	392.00	379.47	81.66
CVTE113	.517	240.00	464.21	196.00	379.11	81.66
CVTE210	.433	200.00	461.89	176.00	406.46	88.00
CVTE211	.350	120.00	342.85	96.00	274.28	80.00
CVTE212	.350	96.00	274.28	102.00	291.42	106.25
CVTE213	.350	120.00	342.85	72.00	205.71	60.00
CVTE215	2.075	900.00	433.73	675.00	325.30	75.00
CVTE218	.183	48.00	262.29	54.00	295.08	112.50
CVTE230	.133	100.00	751.87	38.00	285.71	38.00
***** CVTE	5.891	2689.00	456.45	2117.00	359.36	78.72
FS 110	.200	150.00	750.00	117.00	585.00	78.00
FS 115	.200	150.00	750.00	162.00	810.00	108.00
FS 120	.400	285.00	712.50	174.00	435.00	61.05
***** FS	.800	585.00	731.25	453.00	566.25	77.43
NURS120	2.401	1020.00	424.69	697.00	290.21	68.33
NURS15B	1.153	270.00	234.15	301.50	261.46	111.66
***** NURS	3.554	1290.00	362.88	998.50	280.88	77.40
OTA 120	.133	70.00	526.31	26.00	195.48	37.14
OTA 130	.350	210.00	600.00	78.00	222.85	37.14
OTA 140	.283	175.00	618.37	65.00	229.68	37.14
***** OTA	.766	455.00	593.99	169.00	220.62	37.14
RESP116	.200	105.00	525.00	120.00	600.00	114.28
RESP118	.875	360.00	411.42	300.00	342.85	83.33
RESP122	3.150	315.00	100.00	360.00	114.28	114.28
RESP150	.200	120.00	600.00	117.00	585.00	97.50
RESP199	.450	4.50	4.50	4.50	4.50	100.00
RESP205	.267	120.00	449.43	88.00	329.58	73.33
RESP232	2.100	367.50	175.00	231.00	110.00	62.85
RESP268	.150	93.00	620.00	66.00	440.00	70.96
***** RESP	6.942	1485.00	213.91	1286.50	185.32	86.63
SLPA100	.267	140.00	524.34	52.00	194.75	37.14
SLPA110	.267	140.00	524.34	75.00	284.64	54.28
SLPA200	.267	140.00	524.34	44.00	164.79	31.42
***** SLPA	.801	420.00	524.34	172.00	214.73	40.96
***** BUSINESS AND PROFESSIONAL STUDIES	57.387	29830.00	519.79	22936.00	399.66	76.88

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CA 280	.067	20.00	298.50	18.00	268.65	90.00	
CA 130630	.267	110.00	411.98	99.00	370.78	90.00	
CD 101	.067	30.00	447.76	19.00	283.58	63.33	
CD 106	.150	60.00	400.00	96.00	640.00	160.00	
CD 123	.200	135.00	675.00	114.00	570.00	84.44	
CD 125	2.800	1950.00	696.42	1428.00	510.00	73.23	
CD 127	.400	270.00	675.00	126.00	315.00	46.66	
CD 129	.200	135.00	675.00	120.00	300.00	44.44	
CD 130	.200	135.00	675.00	156.00	780.00	115.55	
CD 131	.600	435.00	725.00	234.00	390.00	53.79	
CD 132	.200	60.00	300.00	51.00	255.00	85.00	
CD 134	.200	135.00	675.00	63.00	315.00	46.66	
CD 141	.200	135.00	675.00	114.00	570.00	84.44	
CD 143	.200	135.00	675.00	48.00	240.00	35.55	
CD 145	.200	111.00	555.00	36.00	180.00	32.43	
CD 199	.600	3.00	3.00	3.00	3.00	100.00	
CD 299	6.417	345.00	575.00	177.00	295.00	51.30	
CD 4209.00		4209.00	655.91	2785.00	434.00	66.16	
CSIS105	.566	355.00	627.20	245.00	432.86	69.01	
CSIS110	2.800	1950.00	696.42	1728.00	617.14	88.61	
CSIS112	.400	144.00	360.00	120.00	300.00	83.33	
CSIS113	.200	90.00	450.00	63.00	315.00	70.00	
CSIS114	.283	140.00	494.69	50.00	175.67	35.71	
CSIS115C	.350	270.00	771.42	72.00	205.71	26.66	
CSIS119	.400	144.00	360.00	126.00	315.00	87.50	
CSIS132	.142	60.00	422.53	37.50	264.08	62.50	
CSIS134	.283	120.00	883.39	150.00	530.03	60.00	
CSIS135	.283	120.00	424.02	55.00	194.34	45.83	
CSIS137	.283	120.00	424.02	65.00	229.68	54.16	
CSIS138	.350	144.00	424.02	78.00	222.85	54.16	
CSIS140	.200	72.00	411.42	78.00	390.00	108.33	
CSIS151A	.600	294.00	490.00	216.00	360.00	73.46	
CSIS151D	.350	144.00	411.42	81.00	405.00	112.50	
CSIS160	.350	72.00	360.00	78.00	390.00	108.33	
CSIS190	.178	40.00	404.49	30.00	168.53	41.66	
CSIS195	.133	40.00	300.75	16.00	120.30	40.00	
CSIS280	.700	288.00	411.42	276.00	394.28	95.83	
CSIS293	.350	144.00	411.42	132.00	377.14	91.66	
CSIS296	.350	144.00	411.42	66.00	188.57	45.83	
CSIS297	.200	84.00	420.00	27.00	135.00	32.14	
CSIS299	9.884	5261.00	532.27	3849.50	389.46	73.17	
CVTE107	.067	16.00	238.80	16.00	238.80	100.00	
CVTE110	.133	120.00	902.25	102.00	766.91	85.00	
CVTE111	.267	240.00	898.87	200.00	749.06	83.33	
CVTE112	1.033	480.00	464.66	408.00	394.96	85.00	
CVTE113	.517	240.00	464.21	204.00	394.58	85.00	



DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE210	121300	.433	180.00	180.00	415.70	161.00	371.82	89.44
CVTE211	121300	.350	96.00	96.00	274.28	90.00	257.14	93.75
CVTE212	121300	.350	96.00	96.00	274.28	108.00	308.57	112.50
CVTE213	121300	.350	120.00	120.00	342.85	66.00	188.57	55.00
CVTE215	121300	2.250	900.00	900.00	400.00	645.00	286.66	71.66
CVTE218	121300	.183	48.00	48.00	262.29	54.00	295.08	112.50
CVTE230	121300	.133	100.00	100.00	751.87	34.00	255.63	34.00
CVTE299	121300	.200	225.00	225.00	1125.00	75.00	375.00	33.33
CVTE		6.266	2861.00	2861.00	456.59	2163.00	345.19	75.60
FS 110	130100	.200	150.00	150.00	750.00	105.00	525.00	70.00
FS 115	130100	.400	300.00	300.00	750.00	195.00	487.50	65.00
FS 120	130100	.400	285.00	285.00	712.50	171.00	427.50	60.00
FS		1.000	735.00	735.00	735.00	471.00	471.00	64.08
NURS120	123010	2.611	680.00	680.00	260.41	663.00	253.90	97.50
NURS155A	123010	.225	135.00	135.00	600.00	40.50	180.00	30.00
NURS155B	123010	.225	270.00	270.00	1200.00	76.50	340.00	28.33
NURS		3.061	1085.00	1085.00	354.43	780.00	254.80	71.88
OTA 120	121800	.133	70.00	70.00	526.31	46.00	345.86	65.71
OTA 130	121800	.350	210.00	210.00	600.00	138.00	394.28	65.71
OTA 140	121800	.283	175.00	175.00	618.37	115.00	406.36	65.71
OTA		.766	455.00	455.00	593.99	299.00	390.33	65.71
RESP116	121000	.200	135.00	135.00	675.00	123.00	615.00	91.11
RESP118	121000	.875	360.00	360.00	411.42	300.00	342.85	83.33
RESP122	121000	3.150	405.00	405.00	128.57	360.00	114.28	88.88
RESP150	121000	.200	135.00	135.00	675.00	123.00	615.00	91.11
RESP205	121000	.267	140.00	140.00	524.34	136.00	509.36	97.14
RESP232	121000	3.150	367.50	367.50	116.66	357.00	113.33	97.14
RESP268	121000	.150	105.00	105.00	700.00	102.00	680.00	97.14
RESP		7.992	1647.50	1647.50	206.14	1501.00	187.81	91.10
SLPA100	122000	.267	140.00	140.00	524.34	60.00	224.71	42.85
SLPA110	122000	.267	140.00	140.00	524.34	52.00	194.75	37.14
SLPA199	122000	.267	6.00	6.00	6.00	6.00	6.00	100.00
SLPA200	122000	.067	10.00	10.00	524.34	44.00	164.79	31.42
SLPA216	122000	.067	10.00	10.00	149.25	5.00	74.62	50.00
SLPA218	122000	.067	10.00	10.00	149.25	5.00	74.62	50.00
SLPA		.935	446.00	446.00	477.00	172.00	183.95	38.56
		58.465	30246.50	30246.50	517.34	22418.50	383.45	74.11

\*\*\*\*\* BUSINESS AND PROFESSIONAL STUDIES \*\*\*\*\*  
 \*\*\*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.233	138.38	593.90	67.65	290.34	48.88	
AOJ 101	210500	.083	44.44	535.42	11.85	142.77	26.66	
AOJ 104	210500	.873	717.19	821.24	191.25	218.99	26.66	
AOJ 107	210500	.979	595.31	607.89	595.31	367.89	100.00	
AOJ 110	210500	.400	261.00	652.50	147.00	367.50	56.32	
AOJ 142	210500	.200	135.00	675.00	48.00	240.00	35.55	
AOJ 250B	210500	.100	55.50	555.00	24.00	240.00	43.24	
AOJ		2.868	1946.82	678.66	1085.06	378.25	55.73	
BUS 086	051400	.268			10.50	39.17	1050.00	
BUS 120	050200	.534	300.00	561.79	248.00	464.41	82.66	
BUS 121	050200	.534	400.00	749.06	260.00	486.89	65.00	
BUS 252	050900	.100	72.00	720.00	40.50	405.00	56.25	
BUS 256	050800	.133	99.69	749.54	55.83	419.77	56.20	
BUS 257	050800	.100	72.00	720.00	37.50	375.00	52.08	
BUS		1.669	943.69	565.42	652.33	390.85	69.12	
CD 125	130500	.400	330.00	825.00	171.00	427.50	51.81	
CD 138	130500	.200	67.50	337.50	45.00	225.00	66.66	
CD 199	130500	.201	149.07	741.64	50.50	510.89	100.00	
CD 299	130500	.801	547.07	682.98	319.19	398.48	68.88	
CD							58.34	
CSIS110	070100	.700	540.00	771.42	294.00	420.00	54.44	
CSIS142	070100	.133	100.00	751.87	56.00	421.05	56.00	
CSIS143	070100	.133	100.00	751.87	46.00	345.86	46.00	
CSIS144	070100	.133	100.00	751.87	38.00	285.71	38.00	
CSIS145	070100	.133	100.00	751.87	46.00	345.86	46.00	
CSIS172	070100	.133	100.00	751.87	58.00	436.09	58.00	
CSIS173B	070100	.133	100.00	751.87	104.00	781.95	104.00	
CSIS		1.498	1140.00	761.01	642.00	428.57	56.31	
CVTE225	121300	.150	75.00	500.00	57.00	380.00	76.00	
CVTE		.150	75.00	500.00	57.00	380.00	76.00	
HESC205	219900	.200	150.00	750.00	30.00	150.00	20.00	
HESC206	219900	.533	280.00	525.03	48.00	240.00	32.00	
HESC299	219900	.933	580.00	621.45	184.00	345.02	65.71	
HESC					262.00	280.72	45.17	
NURS110	123010	.528	220.50	417.61	270.68	512.65	122.75	
NURS118	123010	.067	40.00	597.01	46.00	686.56	115.00	
NURS119	123010	.067	40.00	597.01	38.00	567.16	95.00	
NURS130	123010	1.525	360.00	236.06	369.00	241.96	102.50	
NURS132	123010	1.600	360.00	225.00	351.00	219.37	97.50	
NURS211	123010	1.093	350.33	167.34	363.30	173.53	103.70	
NURS220	123010	1.262	360.00	285.14	324.00	256.63	90.00	
NURS222	123010	1.825	360.00	197.26	288.00	157.80	80.00	
NURS230	123010	1.391	389.25	279.71	376.28	270.39	96.66	

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CA 280	130630	.067	20.00	298.50	18.00	268.65	90.00	
*****	CA	.267	110.00	411.98	99.00	370.78	90.00	
CD 101	130500	.067	30.00	447.76	19.00	283.58	63.33	
CD 106	130500	.150	60.00	400.00	96.00	640.00	160.00	
CD 123	130500	.200	135.00	675.00	114.00	570.00	84.44	
CD 125	130500	2.800	1950.00	696.42	1428.00	510.00	73.23	
CD 127	130500	.400	270.00	675.00	126.00	315.00	46.66	
CD 129	130500	.400	270.00	675.00	120.00	44.44	44.44	
CD 130	130500	.200	135.00	675.00	156.00	780.00	115.55	
CD 131	130500	.600	435.00	725.00	234.00	390.00	53.79	
CD 132	130500	.200	60.00	300.00	31.00	255.00	85.00	
CD 134	130500	.200	135.00	675.00	3.00	315.00	46.66	
CD 141	130500	.200	135.00	675.00	1.00	570.00	84.44	
CD 143	130500	.200	135.00	675.00	.00	240.00	35.55	
CD 145	130500	.200	111.00	675.00	.00	180.00	32.43	
CD 199	130500	.600	3.00	3.00	.00	3.00	100.00	
CD 299	130500	6.417	345.00	295.00	.00	295.00	51.30	
*****	CD		4209.00			434.00	66.16	
CSIS105	070100	.566	355.00	771.42	63.00	432.86	69.01	
CSIS110	070100	2.800	1950.00	360.00	72.00	617.14	88.61	
CSIS112	070100	.400	144.00	424.02	.00	300.00	83.33	
CSIS113	070100	.200	90.00	270.00	63.00	315.00	70.00	
CSIS114	070100	.283	140.00	424.02	72.00	176.67	35.71	
CSIS115C	070100	.350	270.00	883.39	126.00	205.71	26.66	
CSIS119	070100	.400	144.00	424.02	37.50	315.00	87.50	
CSIS132	070100	.142	60.00	180.00	150.00	264.08	62.50	
CSIS134	070100	.283	250.00	883.39	150.00	530.03	60.00	
CSIS135	070100	.283	120.00	424.02	55.00	194.34	45.83	
CSIS137	070100	.283	120.00	424.02	65.00	229.68	54.16	
CSIS138	070100	.283	120.00	424.02	60.00	212.01	50.00	
CSIS140	070100	.350	144.00	424.02	78.00	222.85	54.16	
CSIS151A	070100	.200	72.00	360.00	78.00	390.00	108.33	
CSIS151D	070100	.600	294.00	490.00	216.00	360.00	112.50	
CSIS160	070100	.200	72.00	360.00	81.00	405.00	54.16	
CSIS190	070100	.350	144.00	411.42	78.00	222.85	41.66	
CSIS195	070100	.178	72.00	404.49	30.00	168.53	40.66	
CSIS280	070100	.133	40.00	300.75	16.00	120.30	40.00	
CSIS293	070100	.700	288.00	411.42	276.00	394.28	95.83	
CSIS296	070100	.350	144.00	411.42	132.00	377.14	91.66	
CSIS297	070100	.350	144.00	411.42	66.00	188.57	45.83	
CSIS299	070100	.200	84.00	420.00	27.00	135.00	32.14	
*****	CSIS	9.884	5261.00	532.27	3849.50	389.46	73.17	
CVTE107	121300	.067	16.00	238.80	16.00	238.80	100.00	
CVTE110	121300	.133	120.00	902.25	102.00	766.91	85.00	
CVTE111	121300	.267	240.00	898.87	200.00	749.06	83.33	
CVTE112	121300	1.033	480.00	464.66	408.00	394.96	85.00	
CVTE113	121300	.517	240.00	464.21	204.00	394.58	85.00	

CUTE

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE210 121300	.433	180.00	415.70	161.00	371.82	89.44
CVTE211 121300	.350	96.00	274.28	90.00	257.14	93.75
CVTE212 121300	.350	96.00	274.28	108.00	308.57	112.50
CVTE213 121300	.350	120.00	342.85	66.00	188.57	55.00
CVTE215 121300	2.250	900.00	400.00	645.00	286.66	71.66
CVTE218 121300	.183	48.00	262.29	54.00	295.08	112.50
CVTE230 121300	.133	100.00	751.87	34.00	255.63	34.00
CVTE299 121300	.200	225.00	1125.00	75.00	375.00	33.33
***** CVTE	6.266	2861.00	456.59	2163.00	345.19	75.60
FS 110 130100	.200	150.00	750.00	105.00	525.00	70.00
FS 115 130100	.400	300.00	750.00	195.00	487.50	65.00
FS 120 130100	.400	285.00	712.50	171.00	427.50	60.00
***** FS	1.000	735.00	735.00	471.00	471.00	64.08
NURS120 123010	2.611	680.00	260.41	663.00	253.90	97.50
NURS155A 123010	.225	135.00	600.00	40.50	180.00	30.00
NURS155B 123010	.225	270.00	1200.00	76.50	340.00	28.33
***** NURS	3.061	1085.00	354.43	780.00	254.80	71.88
OTA 120 121800	.133	70.00	526.31	46.00	345.86	65.71
OTA 130 121800	.350	175.00	600.00	138.00	394.28	65.71
OTA 140 121800	.283	455.00	618.37	115.00	406.36	65.71
***** OTA	.766	593.99	593.99	299.00	390.33	65.71
RESP116 121000	.200	135.00	675.00	123.00	615.00	91.11
RESP118 121000	.875	360.00	411.42	300.00	342.85	83.33
RESP122 121000	3.150	405.00	128.57	360.00	114.28	88.88
RESP150 121000	.200	135.00	675.00	123.00	615.00	91.11
RESP205 121000	.267	140.00	524.34	136.00	509.36	97.14
RESP232 121000	3.150	367.50	116.66	357.00	113.33	97.14
RESP268 121000	.150	105.00	700.00	102.00	680.00	97.14
***** RESP	7.992	1647.50	206.14	1501.00	187.81	91.10
SLPA100 122000	.267	140.00	524.34	60.00	224.71	42.85
SLPA110 122000	.267	140.00	524.34	52.00	194.75	37.14
SLPA199 122000	.267	6.00	6.00	6.00	6.00	100.00
SLPA200 122000	.067	10.00	524.34	44.00	164.79	31.42
SLPA216 122000	.067	10.00	149.25	5.00	74.62	50.00
SLPA218 122000	.935	10.00	149.25	5.00	74.62	50.00
***** SLPA	.935	446.00	477.00	172.00	183.95	38.56

\*\*\*\*\* BUSINESS AND PROFESSIONAL STUDIES \*\*\*\*\*

58.465 30246.50 517.34 22418.50 383.45 74.11

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	.233	138.38	593.90	67.65	290.34	48.88	
AOJ 101	.083	44.44	535.42	11.85	142.77	26.66	
AOJ 104	.873	717.19	821.24	191.25	218.99	26.66	
AOJ 107	.979	595.31	607.89	595.31	607.89	100.00	
AOJ 110	.400	261.00	652.50	147.00	367.50	56.32	
AOJ 142	.200	135.00	675.00	48.00	240.00	35.55	
AOJ 250B	.100	55.50	555.00	24.00	240.00	43.24	
AOJ	2.868	1946.82	678.66	1085.06	378.25	55.73	
*****							
BUS 086	.268	300.00	561.79	10.50	39.17	1050.00	
BUS 120	.534	400.00	749.06	248.00	464.41	82.66	
BUS 121	.534	400.00	749.06	260.00	486.89	65.00	
BUS 252	.100	72.00	720.00	40.50	405.00	56.25	
BUS 256	.133	99.69	749.54	55.83	419.77	56.00	
BUS 257	.100	72.00	720.00	37.50	375.00	52.08	
BUS	1.669	943.69	565.42	652.33	390.85	69.12	
*****							
CD 125	.400	330.00	825.00	171.00	427.50	51.81	
CD 138	.200	67.50	337.50	45.50	225.00	66.66	
CD 199	.201	149.07	741.64	102.69	510.89	100.00	
CD	.801	547.07	682.98	319.19	398.48	58.34	
*****							
CD							
CSIS110	.700	540.00	771.42	294.00	420.00	54.44	
CSIS142	.133	100.00	751.87	56.00	421.05	56.00	
CSIS143	.133	100.00	751.87	46.00	345.86	46.00	
CSIS144	.133	100.00	751.87	38.00	285.71	38.00	
CSIS145	.133	100.00	751.87	46.00	345.86	46.00	
CSIS172	.133	100.00	751.87	58.00	436.09	58.00	
CSIS173B	.133	100.00	751.87	104.00	781.95	104.00	
CSIS	1.498	1140.00	761.01	642.00	428.57	56.31	
*****							
CVTE225	.150	75.00	500.00	57.00	380.00	76.00	
CVTE	.150	75.00	500.00	57.00	380.00	76.00	
*****							
HESC205	.200	150.00	750.00	30.00	150.00	20.00	
HESC206	.200	150.00	750.00	48.00	240.00	32.00	
HESC299	.533	280.00	525.03	184.00	345.02	65.71	
HESC	.933	580.00	621.45	262.00	280.72	45.17	
*****							
NURS110	.528	220.50	417.61	270.68	512.65	122.75	
NURS118	.067	40.00	597.01	46.00	686.56	115.00	
NURS119	.067	40.00	597.01	38.00	567.16	95.00	
NURS130	1.525	360.00	236.06	369.00	241.96	102.50	
NURS132	1.600	360.00	225.00	351.00	219.37	97.50	
NURS211	2.093	350.33	167.34	363.30	173.53	103.70	
NURS220	1.262	360.00	285.14	324.00	256.63	90.00	
NURS222	1.825	360.00	197.26	288.00	157.80	80.00	
NURS230	1.391	389.25	279.71	376.28	270.39	96.66	

REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH / FTEF	EARNED WSCH	EARNED WSCH / FTEF	% OF MAX
CA 167	130630	.200	135.00	675.00	72.00	360.00	53.33
*****	CA	.200	135.00	675.00	72.00	360.00	53.33
CD 103	130500	.067	50.00	746.26	21.00	313.43	42.00
CD 106	130500	.150	66.00	440.00	111.00	740.00	168.18
CD 123	130500	.200	135.00	675.00	111.00	555.00	82.22
CD 124	130500	.200	135.00	675.00	99.00	495.00	73.33
CD 125	130500	2.400	1713.00	713.75	1473.00	613.75	85.98
CD 127	130500	.200	135.00	675.00	102.00	510.00	75.55
CD 129	130500	.400	270.00	675.00	138.00	345.00	51.11
CD 130	130500	.200	135.00	675.00	141.00	705.00	104.44
CD 131	130500	.600	420.00	700.00	318.00	530.00	75.71
CD 132	130500	.200	75.00	375.00	36.00	180.00	48.00
CD 134	130500	.200	150.00	750.00	90.00	450.00	60.00
CD 136	130500	.200	75.00	375.00	84.00	285.00	76.00
CD 141	130500	.200	135.00	675.00	57.00	285.00	62.22
CD 143	130500	.200	135.00	675.00	102.00	510.00	75.55
CD 145	130500	.200	135.00	675.00	66.00	330.00	48.88
CD 299	130500	.200	135.00	675.00	75.00	375.00	55.55
*****	CD	5.817	3899.00	670.27	3024.00	519.85	77.77
CSIS105	070100	.566	385.00	680.21	205.00	362.19	53.24
CSIS110	070100	2.800	1920.00	685.71	1554.00	555.00	80.93
CSIS112	070100	.400	144.00	360.00	114.00	285.00	79.16
CSIS113	070100	.400	162.00	405.00	87.00	217.50	53.70
CSIS114	070100	.283	120.00	424.02	65.00	229.68	54.16
CSIS115A	070100	.350	144.00	411.42	120.00	342.85	83.33
CSIS119	070100	.400	144.00	360.00	117.00	292.50	81.25
CSIS134	070100	.283	250.00	883.39	215.00	759.71	86.00
CSIS135	070100	.283	120.00	424.02	90.00	318.02	75.00
CSIS137	070100	.283	120.00	424.02	80.00	282.68	66.66
CSIS141	070100	.217	112.00	516.12	40.00	184.33	35.71
CSIS151A	070100	.200	72.00	360.00	57.00	285.00	79.16
CSIS151D	070100	.600	294.00	490.00	225.00	375.00	76.53
CSIS160	070100	.200	72.00	360.00	72.00	360.00	100.00
CSIS165	070100	.350	144.00	411.42	126.00	360.00	87.50
CSIS190	070100	.350	144.00	411.42	102.00	291.42	70.83
CSIS195	070100	.167	72.00	431.13	42.00	251.49	58.33
CSIS251D	070100	.200	72.00	360.00	48.00	240.00	66.66
CSIS276	070100	.200	72.00	360.00	42.00	210.00	58.33
CSIS293	070100	.700	288.00	411.42	204.00	291.42	70.83
CSIS296	070100	.350	144.00	411.42	114.00	325.71	79.16
CSIS299	070100	.200	84.00	420.00	60.00	300.00	71.42
*****	CSIS	9.782	5079.00	519.21	3779.00	386.32	74.40
CVTE100	121300	.133	120.00	902.25	102.00	766.91	85.00
CVTE101	121300	.267	240.00	898.87	204.00	764.04	85.00
CVTE102	121300	1.033	480.00	464.66	408.00	394.58	85.00
CVTE103	121300	.517	240.00	464.21	204.00	394.58	85.00
CVTE200	121300	.433	150.00	346.42	171.00	394.91	114.00

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE201	121300	.350	96.00	274.28	96.00	274.28	100.00	
CVTE202	121300	.350	96.00	274.28	108.00	308.57	112.50	
CVTE203	121300	.350	102.00	291.42	72.00	205.71	70.58	
CVTE205	121300	2.225	750.00	337.07	675.00	303.37	90.00	
CVTE208	121300	.183	48.00	262.29	54.00	295.08	112.50	
CVTE299	121300	.200	150.00	750.00	40.00	300.00	40.00	
*****	CVTE	6.041	2472.00	409.20	2154.00	356.56	87.13	
FS 110	130100	.200	135.00	675.00	129.00	645.00	95.55	
FS 115	130100	.400	300.00	750.00	189.00	472.50	63.00	
FS 120	130100	.400	285.00	712.50	159.00	397.50	55.78	
*****	FS	1.000	720.00	720.00	477.00	477.00	66.25	
HESC110	219900	.200	90.00	450.00	96.00	480.00	106.66	
HESC150	219900	.200	90.00	450.00	63.00	315.00	70.00	
*****	HESC	.400	180.00	450.00	159.00	397.50	88.33	
NURS120	120300	2.966	680.00	229.26	680.00	229.26	100.00	
NURS155A	120300	.225	270.00	1200.00	4.50	20.00	1.66	
NURS203	120300	1.700	420.00	247.05	444.00	261.17	105.71	
NURS265A	120300	.225	157.50	700.00	130.50	580.00	82.85	
*****	NURS	5.116	1527.50	298.57	1259.00	246.09	82.42	
OTA 100	121800	.133	70.00	526.31	66.00	496.24	94.28	
OTA 101	121800	.217	140.00	645.16	132.00	423.96	65.71	
OTA 110	121800	.350	210.00	600.00	98.00	394.28	65.71	
OTA 210	121800	.222	96.00	422.43	36.00	162.16	37.50	
OTA 220	121800	.283	120.00	424.02	45.00	159.01	37.50	
OTA 230	121800	.067	24.00	358.20	9.00	134.32	37.50	
*****	OTA	1.272	660.00	518.86	386.00	303.45	58.48	
RESP105	121000	.267	180.00	674.15	172.00	644.19	95.55	
RESP108	121000	1.100	405.00	368.18	387.00	351.81	95.55	
RESP114	121000	.133	100.00	751.87	86.00	646.61	86.00	
RESP201	121000	.267	140.00	524.34	136.00	509.36	97.14	
RESP208	121000	.650	240.00	369.23	255.00	392.30	106.25	
RESP222	121000	3.150	367.50	116.66	357.00	113.33	97.14	
*****	RESP	5.567	1432.50	257.31	1393.00	250.22	97.24	
SLPA100	122000	.267	140.00	524.34	60.00	224.71	42.85	
SLPA115	122000	.133	70.00	526.31	26.00	195.48	37.14	
SLPA199	122000	.267	21.00	21.00	21.00	21.00	100.00	
SLPA205	122000	.267	140.00	524.34	40.00	149.81	28.57	
SLPA216	122000	.067	20.00	298.50	10.00	149.25	50.00	
SLPA218	122000	.067	20.00	298.50	10.00	149.25	50.00	
*****	SLPA	.801	411.00	513.10	167.00	208.48	40.63	

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CA 280	.067	20.00	298.50	19.00	283.58	95.00	
CA *****	.267	110.00	411.98	94.00	352.05	85.45	
CD 102	.067	30.00	447.76	15.00	223.88	50.00	
CD 109	.150	60.00	400.00	72.00	480.00	120.00	
CD 111	.150	60.00	400.00	27.00	180.00	45.00	
CD 123	.200	135.00	675.00	126.00	630.00	93.33	
CD 125	2.800	1935.00	691.07	1503.00	536.78	77.67	
CD 126	.200	135.00	675.00	114.00	570.00	84.44	
CD 127	.200	270.00	675.00	168.00	420.00	62.22	
CD 128	.200	135.00	675.00	96.00	480.00	71.11	
CD 129	.200	105.00	525.00	63.00	315.00	60.00	
CD 130	.200	150.00	750.00	330.00	870.00	116.00	
CD 131	.200	420.00	700.00	330.00	550.00	78.57	
CD 132	.200	60.00	300.00	45.00	225.00	75.00	
CD 134	.200	135.00	675.00	129.00	645.00	95.55	
CD 141	.200	135.00	675.00	72.00	360.00	53.33	
CD 143	.200	135.00	675.00	135.00	675.00	100.00	
CD 145	.200	111.00	555.00	57.00	285.00	51.35	
CD 174	.200	75.00	375.00	45.00	225.00	60.00	
CD 199	6.367	3.00	3.00	3.00	3.00	100.00	
CD *****		4089.00	642.21	3174.00	498.50	77.62	
CSIS105	.566	355.00	627.20	185.00	326.85	52.11	
CSIS110	2.800	1920.00	685.71	1536.00	548.57	80.00	
CSIS112	.400	144.00	360.00	99.00	247.50	68.75	
CSIS113	.200	90.00	450.00	54.00	270.00	60.00	
CSIS114	.283	140.00	494.69	85.00	300.35	60.71	
CSIS119	.400	144.00	360.00	114.00	285.00	79.16	
CSIS132	.142	60.00	422.53	40.00	281.69	66.66	
CSIS134	.566	370.00	653.71	305.00	538.86	82.43	
CSIS135	.233	120.00	424.02	100.00	353.35	83.33	
CSIS136	.233	120.00	424.02	75.00	265.01	62.50	
CSIS137	.233	120.00	424.02	95.00	335.68	79.16	
CSIS138	.233	120.00	424.02	70.00	247.34	58.33	
CSIS140	.250	144.00	411.42	90.00	257.14	66.66	
CSIS151A	.200	72.00	360.00	48.00	240.00	66.66	
CSIS151D	.200	72.00	360.00	225.00	375.00	100.00	
CSIS160	.200	72.00	360.00	72.00	360.00	100.00	
CSIS190	.250	144.00	411.42	78.00	222.85	54.16	
CSIS195	.167	72.00	431.13	48.00	287.42	65.56	
CSIS220	.200	120.00	600.00	42.00	210.00	35.00	
CSIS280	.133	40.00	300.75	30.00	225.56	75.00	
CSIS293	.700	288.00	411.42	204.00	291.42	70.83	
CSIS296	.350	144.00	411.42	144.00	411.42	100.00	
CSIS297	.350	144.00	411.42	60.00	171.42	41.56	
CSIS *****	10.089	5237.00	519.08	3799.00	376.54	72.54	
CVTE107	.067	25.00	373.13	22.00	328.35	88.00	
CVTE110	.133	120.00	902.25	98.00	736.84	81.66	



SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE111	121300	.267	240.00	898.87	196.00	734.08	81.66		
CVTE112	121300	1.033	480.00	464.66	392.00	379.47	81.66		
CVTE113	121300	.517	240.00	464.21	196.00	379.11	81.66		
CVTE210	121300	.433	200.00	461.89	176.00	406.46	88.00		
CVTE211	121300	.350	120.00	342.85	96.00	274.28	80.00		
CVTE212	121300	.350	96.00	274.28	102.00	291.42	106.25		
CVTE213	121300	.350	120.00	342.85	72.00	205.71	60.00		
CVTE215	121300	2.075	900.00	433.73	675.00	325.30	75.00		
CVTE218	121300	.183	48.00	262.29	54.00	295.08	112.50		
CVTE230	121300	.133	100.00	751.87	38.00	285.71	38.00		
*****	CVTE	5.891	2689.00	456.45	2117.00	359.36	78.72		
FS 110	130100	.200	150.00	750.00	117.00	585.00	78.00		
FS 115	130100	.200	150.00	750.00	162.00	810.00	108.00		
FS 120	130100	.400	285.00	712.50	174.00	435.00	61.05		
*****	FS	.800	585.00	731.25	453.00	566.25	77.43		
NURS120	123010	2.401	1020.00	424.69	697.00	290.21	68.33		
NURS155B	123010	1.153	270.00	234.15	301.50	261.46	111.66		
*****	NURS	3.554	1290.00	362.88	998.50	280.88	77.40		
OTA 120	121800	.133	70.00	526.31	26.00	195.48	37.14		
OTA 130	121800	.350	210.00	600.00	78.00	222.85	37.14		
OTA 140	121800	.283	175.00	618.37	65.00	229.68	37.14		
*****	OTA	.766	455.00	593.99	169.00	220.62	37.14		
RESP116	121000	.200	105.00	525.00	120.00	600.00	114.28		
RESP118	121000	.875	360.00	411.42	300.00	342.85	83.33		
RESP122	121000	3.150	315.00	100.00	360.00	114.28	114.28		
RESP150	121000	.200	120.00	600.00	117.00	585.00	97.50		
RESP199	121000	.450	4.50	4.50	4.50	4.50	100.00		
RESP205	121000	.267	120.00	449.43	88.00	329.58	73.33		
RESP232	121000	2.100	367.50	175.00	231.00	110.00	62.85		
RESP268	121000	.150	93.00	620.00	66.00	440.00	70.96		
*****	RESP	6.942	1485.00	213.91	1286.50	185.32	86.63		
SLPA100	122000	.267	140.00	524.34	52.00	194.75	37.14		
SLPA110	122000	.267	140.00	524.34	76.00	284.64	54.28		
SLPA200	122000	.267	140.00	524.34	44.00	164.79	31.42		
*****	SLPA	.801	420.00	524.34	172.00	214.73	40.95		
***** BUSINESS AND PROFESSIONAL STUDIES *****									
		57.387	29830.00	519.79	22936.00	399.66	76.88		

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.208	138.38	665.28	95.33	458.31	68.89
AOJ 101	210500	.083	44.44	535.42	25.18	303.37	56.66
AOJ 104	210500	.950	717.19	754.93	270.94	285.20	37.77
AOJ 107	210500	.979	605.31	618.29	665.84	680.12	109.99
AOJ 110	210500	.400	261.00	652.50	174.00	435.00	66.66
AOJ 142	210500	.200	135.00	675.00	75.00	375.00	55.55
*****	AOJ	2.820	1901.32	674.22	1306.29	463.22	68.70
BUS 120	050200	.534	300.00	561.79	296.00	554.30	98.66
BUS 121	050200	.534	400.00	749.06	356.00	666.66	89.00
BUS 252	050900	.100	72.00	720.00	27.00	270.00	37.50
BUS 256	050800	.133	99.69	749.54	31.90	239.84	31.99
BUS 257	050800	.100	36.00	360.00	13.50	135.00	37.50
*****	BUS	1.401	907.69	647.88	724.40	517.05	79.80
CA 163	130630	.067	35.00	522.38	35.00	522.38	100.00
CA 166	130630	.067	35.00	522.38	26.00	388.05	74.28
*****	CA	.134	70.00	522.38	61.00	455.22	87.14
CD 125	130500	.200	180.00	900.00	174.00	870.00	96.66
CD 129	130500	.200	135.00	675.00	81.00	405.00	60.00
CD 137	130500	.200	135.00	675.00	105.00	525.00	77.77
CD 299	130500	.133	90.00	676.69	50.00	375.93	55.55
*****	CD	.733	540.00	736.69	410.00	559.34	75.92
CSIS110	070100	.700	540.00	771.42	438.00	625.71	81.11
CSIS142	070100	.266	104.00	390.97	74.00	278.19	71.15
CSIS143	070100	.266	104.00	390.97	50.00	187.96	48.07
CSIS172	070100	.133	100.00	751.87	48.00	360.90	48.00
CSIS173B	070100	.133	100.00	751.87	96.00	721.80	96.00
CSIS174B	070100	.133	48.00	360.90	22.00	165.41	45.83
CSIS274B	070100	.133	48.00	360.90	20.00	150.37	41.66
CSIS299	070100	.266	112.00	421.05	64.00	240.60	57.14
*****	CSIS	2.030	1156.00	569.45	812.00	400.00	70.24
CVTE225	121300	.150	75.00	500.00	39.00	260.00	52.00
CVTE299	121300	.200	225.00	1125.00	75.00	375.00	33.33
*****	CVTE	.350	300.00	857.14	114.00	325.71	38.00
HESC205	219900	.200	150.00	750.00	39.00	195.00	26.00
HESC206	219900	.200	150.00	750.00	51.00	255.00	34.00
*****	HESC	.400	300.00	750.00	90.00	225.00	30.00
NURS110	123010	.542	212.50	391.84	243.75	449.47	114.70
NURS117	123010	.066	30.00	454.54	29.50	446.96	98.33
NURS118	123010	.067	18.00	268.65	23.00	343.28	127.77
NURS119	123010	.067	35.00	522.38	38.00	567.16	108.57
NURS130	123010	1.600	360.00	225.00	324.00	202.50	90.00
NURS132	123010	1.600	360.00	225.00	333.00	208.12	92.50

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH	% OF MAX
***** CSIS	10.709	5706.00	532.82	4601.00	429.63	80.63			
CVTE100	.133	120.00	902.25	110.00	827.06	91.66			
CVTE101	.267	240.00	898.87	220.00	823.97	91.66			
CVTE102	1.033	480.00	464.66	440.00	425.94	91.66			
CVTE103	.517	240.00	464.21	220.00	425.53	91.66			
CVTE200	.433	150.00	346.42	176.00	406.46	117.33			
CVTE201	.350	108.00	308.57	96.00	274.28	88.88			
CVTE202	.350	102.00	291.42	108.00	308.57	105.88			
CVTE203	.350	102.00	291.42	72.00	205.71	70.58			
CVTE205	.075	750.00	361.44	690.00	332.53	92.00			
CVTE208	1.83	75.00	409.83	57.00	311.47	76.00			
***** CVTE	5.691	2367.00	415.91	2189.00	384.64	92.47			
FS 110	.200	135.00	675.00	141.00	705.00	104.44			
FS 115	.200	135.00	675.00	114.00	570.00	84.44			
FS 120	.400	285.00	712.50	177.00	442.50	62.10			
***** FS	.800	555.00	693.75	432.00	540.00	77.83			
HESC110	.200	90.00	450.00	84.00	420.00	93.33			
HESC150	.200	90.00	450.00	69.00	345.00	76.66			
***** HESC	.400	180.00	450.00	153.00	382.50	85.00			
NURS000	2.408	1020.00	423.55	37.00	37.00	3700.00			
NURS120	.089	52.50	589.88	42.00	282.36	66.66			
NURS201	1.122	420.00	374.33	336.00	471.91	80.00			
NURS203	.225	292.50	1300.00	211.50	299.46	80.00			
NURS255A	.225	157.50	700.00	90.00	400.00	72.30			
NURS255B	.225	157.50	700.00	108.00	480.00	57.14			
NURS265A	.225	157.50	700.00	108.00	480.00	68.57			
***** NURS	4.294	2100.00	489.03	1504.50	350.35	71.64			
OTA 100	.133	70.00	526.31	36.00	270.67	51.42			
OTA 101	.217	140.00	645.16	56.00	258.06	40.00			
OTA 110	.350	210.00	600.00	84.00	240.00	40.00			
OTA 210	.222	96.00	432.43	52.00	234.23	54.16			
OTA 220	.283	120.00	424.02	65.00	229.68	54.16			
OTA 230	.067	24.00	358.20	13.00	194.02	54.16			
***** OTA	1.272	660.00	518.86	306.00	240.56	46.36			
RESP105	.267	140.00	524.34	172.00	644.19	122.85			
RESP108	1.100	405.00	368.18	387.00	351.81	95.55			
RESP114	.133	90.00	676.69	86.00	646.61	95.55			
RESP115	.267	120.00	449.43	80.00	299.62	66.66			
RESP208	.650	225.00	346.15	142.50	219.23	63.33			
RESP222	2.100	315.00	150.00	199.50	95.00	63.33			
***** RESP	4.517	1295.00	286.69	1067.00	236.21	82.39			
SLPA100	.267	140.00	524.34	100.00	374.53	71.42			
SLPA115	.133	70.00	526.31	40.00	300.75	57.14			
SLPA205	.267	140.00	524.34	56.00	209.73	40.00			

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES  
 \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
***** CA	.267	110.00	411.98	99.00	370.78	90.00	
CD 103	.067	30.00	447.76	43.00	641.79	143.33	
CD 107	.150	60.00	400.00	69.00	460.00	115.00	
CD 110	.150	60.00	400.00	21.00	140.00	35.00	
CD 123	.200	108.00	540.00	90.00	450.00	83.33	
CD 124	.200	150.00	750.00	147.00	735.00	98.00	
CD 125	2.200	1530.00	695.45	1374.00	624.54	89.80	
CD 126	.400	270.00	675.00	201.00	502.50	74.44	
CD 127	.400	270.00	675.00	126.00	315.00	46.66	
CD 128	.200	135.00	675.00	129.00	645.00	95.55	
CD 129	.400	270.00	675.00	168.00	420.00	62.22	
CD 130	.200	150.00	750.00	105.00	525.00	70.00	
CD 131	.600	390.00	650.00	351.00	585.00	90.00	
CD 132	.200	60.00	300.00	60.00	300.00	100.00	
CD 134	.200	150.00	750.00	102.00	510.00	68.00	
CD 138	.200	108.00	540.00	81.00	405.00	75.00	
CD 141	.200	135.00	675.00	123.00	615.00	91.11	
CD 145	.200	108.00	540.00	42.00	210.00	38.88	
CD 174	.200	75.00	375.00	96.00	480.00	128.00	
***** CD	6.367	4059.00	637.50	3328.00	522.69	81.99	
CSIS105	.566	355.00	627.20	190.00	335.68	53.52	
CSIS110	4.200	2820.00	671.42	2208.00	525.71	78.29	
CSIS112	.400	144.00	360.00	99.00	247.50	68.75	
CSIS113	.400	222.00	555.00	123.00	307.50	55.40	
CSIS114	.283	140.00	494.69	65.00	229.68	46.42	
CSIS119	.600	282.00	470.00	222.00	370.00	78.72	
CSIS132	.142	60.00	422.53	37.50	264.08	62.50	
CSIS134	.566	370.00	653.71	285.00	503.53	77.02	
CSIS135	.283	120.00	424.02	80.00	282.68	66.66	
CSIS136	.283	120.00	424.02	95.00	335.68	79.16	
CSIS137	.283	120.00	424.02	105.00	371.02	87.50	
CSIS138	.283	120.00	424.02	90.00	318.02	75.00	
CSIS151A	.200	72.00	360.00	69.00	345.00	95.83	
CSIS151D	.600	294.00	490.00	225.00	375.00	76.53	
CSIS165	.350	144.00	411.42	90.00	257.14	62.50	
CSIS190	.350	144.00	411.42	108.00	308.57	75.00	
CSIS195	.178	72.00	404.49	60.00	337.07	83.33	
CSIS220	.200	90.00	450.00	24.00	120.00	26.66	
CSIS251A	.200	72.00	360.00	66.00	330.00	91.66	
CSIS280	.133	40.00	300.75	24.00	180.45	60.00	
CSIS293	.700	288.00	411.42	276.00	394.28	95.83	
CSIS296	.350	144.00	411.42	120.00	342.85	83.33	
CSIS297	.350	144.00	411.42	108.00	308.57	75.00	
CSIS299	.200	72.00	360.00	57.00	285.00	79.16	
***** CSIS	12.100	6449.00	532.97	4826.50	398.88	74.84	
CVTE107	.067	25.00	373.13	29.00	432.83	116.00	
CVTE110	.133	120.00	902.25	94.00	706.76	78.33	
CVTE111	.267	240.00	898.87	188.00	704.11	78.33	

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE112	1.033	480.00	480.00	464.66	376.00	363.98	78.33
CVTE113	.584	240.00	240.00	410.95	188.00	321.91	78.33
CVTE210	.433	200.00	200.00	461.89	179.00	413.39	89.50
CVTE211	.350	120.00	120.00	342.85	108.00	308.57	90.00
CVTE212	.350	96.00	96.00	274.28	102.00	291.42	106.25
CVTE213	.350	120.00	120.00	342.85	66.00	188.57	55.00
CVTE215	2.400	900.00	900.00	375.00	690.00	287.50	76.66
CVTE218	.183	48.00	48.00	262.29	51.00	278.68	106.25
CVTE230	.133	100.00	100.00	751.87	34.00	255.63	34.00
CVTE	6.283	2689.00	2689.00	427.98	2105.00	335.03	78.28
FS 110	.200	150.00	150.00	750.00	144.00	720.00	96.00
FS 115	.200	150.00	150.00	750.00	156.00	780.00	104.00
FS 120	.400	285.00	285.00	712.50	225.00	562.50	78.94
FS	.800	585.00	585.00	731.25	525.00	656.25	89.74
NURS131	.177	90.00	90.00	506.75	88.50	498.31	98.33
NURS155B	.225	270.00	270.00	1200.00			
NURS	.402	360.00	360.00	894.18	88.50	219.82	24.58
OTA 120	.133	70.00	70.00	526.31	28.00	210.52	40.00
OTA 130	.350	210.00	210.00	600.00	84.00	240.00	40.00
OTA 140	.283	175.00	175.00	618.37	70.00	247.34	40.00
OTA	.766	455.00	455.00	593.99	182.00	237.59	40.00
RESP116	.200	105.00	105.00	525.00	54.00	270.00	51.42
RESP118	.650	450.00	450.00	692.30	142.50	219.23	31.66
RESP122	1.800	315.00	315.00	175.00	162.00	90.00	51.42
RESP199	.267	9.00	9.00	9.00	9.00	9.00	100.00
RESP205	2.100	120.00	120.00	449.43	80.00	299.62	66.66
RESP232	.200	367.50	367.50	175.00	210.00	100.00	57.14
RESP250	.150	105.00	105.00	525.00	54.00	270.00	51.42
RESP268	5.367	93.00	93.00	620.00	60.00	400.00	64.51
RESP		1564.50	1564.50	291.50	771.50	143.74	49.31
SLPA100	.267	140.00	140.00	524.34	56.00	209.73	40.00
SLPA200	.534	280.00	280.00	524.34	48.00	179.77	34.28
SLPA		280.00	280.00	524.34	104.00	194.75	37.14

\*\*\*\*\* BUSINESS AND PROFESSIONAL STUDIES \*\*\*\*\*

52.663 28243.50 536.30 22862.50 434.12 80.94

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH /FTEF	EARNED WSCH	EARNED WSCH /FTEF	% OF MAX
AOJ 100	210500	.233	138.38	593.90	126.08	541.11	91.11
AOJ 101	210500	.083	59.25	713.85	33.58	404.57	56.67
AOJ 110	210500	.200	150.00	750.00	81.00	405.00	54.00
AOJ 142	210500	.200	150.00	750.00	102.00	510.00	68.00
AOJ 251A	210500	.167	100.00	598.80	87.50	523.95	87.50
AOJ 251B	210500	.167	80.00	479.04	75.00	449.10	93.75
AOJ 299	210500	.949	721.97	760.12	385.05	405.40	53.33
*****	AOJ	1.999	1399.60	699.86	890.21	445.14	63.60
BUS 086	051400	.267	20.00	74.85	52.00	194.61	260.00
BUS 120	050200	.267	200.00	749.06	212.00	794.00	106.00
BUS 121	050200	.267	200.00	749.06	192.00	719.10	96.00
BUS 252	050900	.100	72.00	720.00	34.50	345.00	47.91
BUS 256	050990	.133	99.69	749.54	47.85	359.77	47.99
BUS 257	050990	.100	36.00	360.00	19.50	195.00	54.16
*****	BUS	1.134	627.69	553.42	557.85	491.84	88.87
CA 163	130630	.067	35.00	522.38	33.00	492.53	94.28
CA 166	130630	.067	35.00	522.38	28.00	417.91	80.00
*****	CA	.134	70.00	522.38	61.00	455.22	87.14
CD 125	130510	.400	315.00	787.50	213.00	532.50	67.61
CD 128	130510	.200	135.00	675.00	117.00	585.00	86.66
CD 299	130510	.067	45.00	671.64	31.00	462.68	68.88
*****	CD	.667	495.00	742.12	361.00	541.22	72.92
CSIS142	070300	.266	104.00	390.97	92.00	345.86	88.46
CSIS143	070300	.266	104.00	390.97	82.00	308.27	78.84
CSIS144	070300	.133	48.00	360.90	28.00	210.52	58.33
CSIS145	070300	.133	48.00	360.90	34.00	255.63	70.83
CSIS172	070300	.133	100.00	751.87	34.00	255.63	34.00
CSIS173B	070300	.133	100.00	751.87	88.00	661.65	88.00
CSIS174B	070300	.133	48.00	360.90	38.00	285.71	79.16
CSIS274B	070300	.133	48.00	360.90	40.00	300.75	83.33
*****	CSIS	1.330	600.00	451.12	436.00	327.81	72.66
CVTE225	121300	.150	75.00	500.00	78.00	520.00	104.00
*****	CVTE	.150	75.00	500.00	78.00	520.00	104.00
HESC205	219900	.200	150.00	750.00	75.00	375.00	50.00
HESC206	219900	.200	150.00	750.00	72.00	360.00	48.00
*****	HESC	.400	300.00	750.00	147.00	367.50	49.00
NURS110	120300	.383	174.57	455.79	139.65	364.62	79.99
NURS117	120300	.066	35.00	530.30	21.00	318.18	60.00
NURS119	120300	.067	36.00	537.31	13.00	319.03	36.11
NURS133	120300	1.684	384.00	228.00	358.80	213.03	93.43
NURS135	120300	1.685	359.25	213.12	335.25	198.89	93.31
NURS137	120300	1.638	359.25	219.20	323.33	197.28	90.00

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
			MAX		EARNED				
			WSCH/FTEF	WSCH	WSCH	WSCH	WSCH	WSCH/FTEF	WSCH
CSIS296	070300	.350	144.00	411.42	132.00	377.14	91.66		
CSIS299	070300	.200	72.00	360.00	48.00	240.00	66.66		
*****	CSIS	12.923	6858.00	530.66	5683.00	439.74	82.86		
CVTE100	121300	.133	120.00	902.25	106.00	796.99	88.33		
CVTE101	121300	.267	240.00	898.87	212.00	794.00	88.33		
CVTE102	121300	1.033	480.00	464.66	424.00	410.45	88.33		
CVTE103	121300	.517	240.00	464.21	212.00	410.05	88.33		
CVTE200	121300	.433	200.00	461.89	186.00	429.56	93.00		
CVTE201	121300	.350	108.00	308.57	108.00	308.57	100.00		
CVTE202	121300	.350	102.00	291.42	108.00	308.57	105.88		
CVTE203	121300	.350	102.00	291.42	72.00	205.71	70.58		
CVTE205	121300	2.400	750.00	312.50	720.00	300.00	96.00		
CVTE208	121300	.183	75.00	409.83	54.00	295.08	72.00		
*****	CVTE	6.016	2417.00	401.76	2202.00	366.02	91.10		
FS 110	130400	.200	120.00	600.00	150.00	750.00	125.00		
FS 115	130400	.200	135.00	675.00	114.00	570.00	84.44		
FS 120	130400	.400	246.00	615.00	222.00	555.00	90.24		
*****	FS	.800	501.00	626.25	486.00	607.50	97.00		
HESC110	219900	.200	90.00	450.00	84.00	420.00	93.33		
HESC150	219900	.400	90.00	450.00	51.00	255.00	56.66		
*****	HESC	.400	180.00	450.00	135.00	337.50	75.00		
NURS120	120300	3.380	810.00	239.60	796.50	235.60	98.33		
NURS201	120300	.089	49.50	556.17	45.00	505.61	90.90		
NURS203	120300	1.583	480.00	303.22	408.00	257.73	85.00		
NURS255A	120300	.225	292.50	1300.00	256.50	1140.00	87.69		
NURS265A	120300	.225	157.50	700.00	108.00	480.00	68.57		
*****	NURS	5.502	1789.50	325.20	1614.00	293.31	90.19		
OTA 100	121800	.133	70.00	526.31	44.00	330.82	62.85		
OTA 101	121800	.217	140.00	645.16	68.00	313.36	48.57		
OTA 110	121800	.350	210.00	600.00	90.00	257.14	42.85		
OTA 210	121800	.222	96.00	432.43	44.00	198.19	45.83		
OTA 220	121800	.283	120.00	424.02	55.00	194.34	45.83		
OTA 230	121800	.067	24.00	358.20	11.00	164.17	45.83		
*****	OTA	1.272	660.00	518.86	312.00	245.28	47.27		
RESP105	121000	.267	140.00	524.34	88.00	329.58	62.85		
RESP108	121000	.800	270.00	337.50	198.00	247.50	73.33		
RESP114	121000	.133	70.00	526.31	46.00	345.86	65.71		
RESP115	121000	.267	120.00	449.43	88.00	329.58	73.33		
RESP208	121000	.650	225.00	346.15	165.00	253.84	73.33		
RESP222	121000	2.100	315.00	150.00	231.00	110.00	73.33		
*****	RESP	4.217	1140.00	270.33	816.00	193.50	71.57		
SLPA100	122000	.267	140.00	524.34	56.00	209.73	40.00		
SLPA115	122000	.133	60.00	451.12	32.00	240.60	53.33		

SKDS7I-I 16-2003 08:27:12 GROSSMC COLLEGE  
 RUN ON: SUBJECT WSCH LYSIS  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CVTE107	121300	.067	25.00	373.13	30.00	447.76	120.00
CVTE110	121300	.133	120.00	902.25	102.00	766.91	85.00
CVTE111	121300	.267	240.00	898.87	204.00	764.04	85.00
CVTE112	121300	1.033	480.00	464.66	408.00	394.96	85.00
CVTE113	121300	.517	240.00	464.21	204.00	394.58	85.00
CVTE210	121300	.433	200.00	461.89	160.00	369.51	80.00
CVTE211	121300	.350	120.00	342.85	96.00	274.28	80.00
CVTE212	121300	.350	96.00	274.28	60.00	171.42	62.50
CVTE213	121300	.350	120.00	342.85	78.00	222.85	65.00
CVTE215	121300	2.250	900.00	400.00	570.00	253.33	63.33
CVTE218	121300	.183	48.00	262.29	30.00	163.93	62.50
CVTE230	121300	.133	100.00	751.87	40.00	300.75	40.00
***** CVTE		6.066	2689.00	443.29	1982.00	326.73	73.70
FS 110	130400	.200	150.00	750.00	150.00	750.00	100.00
FS 115	130400	.400	300.00	750.00	186.00	465.00	62.00
FS 120	130400	.400	285.00	712.50	198.00	495.00	69.47
***** FS		1.000	735.00	735.00	534.00	534.00	72.65
MM 192	069900	.350	144.00	411.42	102.00	291.42	70.83
***** MM		.350	144.00	411.42	102.00	291.42	70.83
NURS131	120300	.165	120.00	724.63	105.00	634.05	87.50
NURS155B	120300	.225	360.00	1600.00	76.50	340.00	21.25
***** NURS		.390	480.00	1228.87	181.50	464.66	37.81
OTA 100	121800	.133	70.00	526.31	22.00	165.41	31.42
OTA 120	121800	.133	70.00	526.31	26.00	195.48	37.14
OTA 130	121800	.350	210.00	600.00	78.00	222.85	37.14
OTA 140	121800	.283	175.00	618.37	65.00	229.68	37.14
***** OTA		.899	525.00	583.98	191.00	212.45	36.38
RESP116	121000	.200	105.00	525.00	72.00	360.00	68.57
RESP118	121000	.650	450.00	692.30	187.50	288.46	41.66
RESP122	121000	2.250	315.00	140.00	216.00	96.00	68.57
RESP205	121000	.267	120.00	449.43	56.00	209.73	46.66
RESP232	121000	1.575	367.50	233.33	147.00	93.33	40.00
RESP250	121000	.200	105.00	525.00	72.00	360.00	68.57
RESP268	121000	.150	93.00	620.00	42.00	280.00	45.16
***** RESP		5.292	1555.50	293.93	792.50	149.75	50.94
SLPA100	122000	.267	140.00	524.34	60.00	224.71	42.85
SLPA110	122000	.267	140.00	524.34	48.00	179.77	34.28
SLPA205	122000	.267	140.00	524.34	48.00	179.77	34.28
***** SLPA		.801	420.00	524.34	156.00	194.75	37.14



\*\*\* DAILY CENSUS CLASSES \*\*\*

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH/FTEF	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
AOJ 100	210500	.208	116.44	559.80	116.44	559.80	100.00
AOJ 101	210500	.083	37.03	446.14	31.11	374.81	84.01
AOJ 104	210500	.966	718.88	743.64	175.73	181.78	24.44
AOJ 110	210500	.200	150.00	750.00	84.00	420.00	56.00
AOJ 199	210500		1.50	1.50	1.50	1.50	100.00
AOJ 250B	210500	.100	60.00	600.00	39.00	390.00	65.00
AOJ 262A	210500	.067	45.00	671.64	13.00	194.02	28.88
*****	AOJ	1.624	1128.85	694.80	460.78	283.60	40.81
BOT 101A	051400	.163			111.00	680.98	11100.00
BOT 102	051400				3.00	3.00	300.00
*****	BOT	.163			114.00	699.38	11400.00
BUS 086	051400	.536	22.50	41.97	79.50	148.32	353.33
BUS 120	050200	.267	200.00	749.06	184.00	689.13	92.00
BUS 121	050200	.267	200.00	749.06	168.00	629.21	84.00
BUS 252	050900	.100	72.00	720.00	51.00	510.00	70.83
BUS 256	050990	.133	68.75	516.91	37.13	279.17	54.00
BUS 257	050990	.100	36.00	360.00	26.25	262.50	72.91
*****	BUS	1.403	599.25	427.12	545.88	389.08	91.09
CA 163	130630	.067	35.00	522.38	26.00	388.05	74.28
CA 166	130630	.067	35.00	522.38	25.00	373.13	71.42
*****	CA	.134	70.00	522.38	51.00	380.59	72.85
CD 125	130510	.400	330.00	825.00	204.00	510.00	61.81
CD 128	130510	.200	135.00	675.00	132.00	660.00	97.77
CD 138	130510	.200	189.00	945.00	157.50	787.50	83.33
CD 299	130510	.134	90.00	671.64	68.00	507.46	75.55
*****	CD	.934	744.00	796.57	561.50	601.17	75.47
CSIS105	070300	.283			99.75	352.47	9975.00
CSIS132	070300	.142			50.25	353.87	5025.00
CSIS142	070300	.399			136.00	340.85	106.25
CSIS143	070300	.266	128.00	320.80	66.00	248.12	63.46
CSIS144	070300	.133	104.00	390.97	30.00	225.56	62.50
CSIS145	070300	.133	48.00	360.90	30.00	225.56	62.50
CSIS172	070300	.133	100.00	360.90	56.00	421.05	56.00
CSIS173B	070300	.133	100.00	751.87	78.00	586.46	78.00
CSIS174B	070300	.266	48.00	180.45	60.00	225.56	125.00
CSIS186A	070300	.033			10.00	303.03	1000.00
CSIS186B	070300	.033			10.00	303.03	1000.00
CSIS274B	070300	.266	48.00	180.45	62.00	233.08	129.16
CSIS280	070300	.133			39.00	293.23	3900.00
CSIS299	070300	.342	624.00	231.53	104.38	305.20	10438.00
*****	CSIS	2.695			831.38	308.48	133.23
CVTE225	121300	.150	75.00	500.00	66.00	440.00	88.00



SKDS7I-I  
 RUN ON: 08-28-2002 09:39:51  
 REPORT INCLUDES: GROSSMONT COLLEGE ONLY \*\*\* ALL SHORT TERM CLASSES \*\*\*

GROSSMONT COLLEGE  
 SUBJECT WSCH ANALYSIS

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES

\*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH/FTEF	EARNED WSCH/FTEF	% OF MAX
CSIS296	070300	.350	144.00	411.42	126.00	360.00	87.50		
CSIS297	070300	.350	144.00	411.42	96.00	274.28	66.66		
CSIS299	070300	.600	216.00	360.00	183.00	305.00	84.72		
*****	CSIS	16.619	8776.00	528.07	7195.50	432.96	81.99		
CVTE107	121300	.067	25.00	373.13	15.00	223.88	60.00		
CVTE110	121300	.133	120.00	902.25	78.00	586.46	65.00		
CVTE111	121300	.267	240.00	898.87	156.00	584.26	65.00		
CVTE112	121300	1.033	480.00	464.66	304.00	294.28	63.33		
CVTE113	121300	.517	240.00	464.21	156.00	301.74	65.00		
CVTE210	121300	.583	300.00	514.57	155.00	265.86	51.66		
CVTE211	121300	.350	120.00	342.85	98.00	257.14	75.00		
CVTE212	121300	.350	120.00	342.85	48.00	137.14	53.33		
CVTE213	121300	.350	120.00	342.85	60.00	171.42	50.00		
CVTE215	121300	2.175	900.00	413.79	480.00	220.68	53.33		
CVTE299	121300	.067	50.00	746.26	10.00	149.25	20.00		
*****	CVTE	5.892	2685.00	455.70	1552.00	263.40	57.80		
FS 110	130400	.200	120.00	600.00	111.00	555.00	92.50		
FS 115	130400	.200	120.00	600.00	102.00	510.00	85.00		
FS 120	130400	.400	270.00	675.00	213.00	532.50	78.88		
FS 299	130400	.267	155.00	580.52	62.00	232.20	40.00		
*****	FS	1.067	665.00	623.24	488.00	457.35	73.38		
HESC110	219900	.200	120.00	600.00	120.00	600.00	100.00		
HESC150	219900	.200	120.00	600.00	75.00	375.00	62.50		
HESC205	219900	.133	80.00	601.50	30.00	225.56	37.50		
HESC206	219900	.200	120.00	600.00	45.00	225.00	37.50		
*****	HESC	.733	440.00	600.27	270.00	368.34	61.36		
MM 299	069900	.200	60.00	300.00	54.00	270.00	90.00		
*****	MM	.200	60.00	300.00	54.00	270.00	90.00		
NURS118	120300	.133	270.00	275.84	58.00	436.09	5800.00		
NURS120	120300	.978	270.00	270.00	270.00	275.84	100.00		
NURS131	120300	.099	90.00	909.09	85.50	863.63	95.00		
NURS155B	120300	.225	270.00	1200.00	270.00	1200.00	100.00		
NURS199	120300	.225	6.00	6.00	6.00	6.00	100.00		
NURS255B	120300	.225	270.00	1200.00	108.00	480.00	40.00		
NURS265B	120300	.225	157.50	700.00	85.50	380.00	54.28		
*****	NURS	1.885	1063.50	563.95	883.00	468.23	83.02		
OTA 100	121800	.133	70.00	526.31	32.00	240.60	45.71		
OTA 120	121800	.133	70.00	526.31	12.00	90.22	17.14		
OTA 130	121800	.350	210.00	600.00	36.00	102.85	17.14		
OTA 140	121800	.283	175.00	618.37	30.00	106.00	17.14		
*****	OTA	.899	525.00	583.98	110.00	122.35	20.95		
RESP116	121000	.200	108.00	540.00	45.00	225.00	41.66		
RESP118	121000	.425	135.00	317.64	105.00	247.05	77.77		

\*\*\* DAILY CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH / FTEF	EARNED WSCH	EARNED WSCH / FTEF	% OF MAX
AOJ 101	210500	.312	157.50	504.64	125.00	400.51	79.36
AOJ 104	210500	.993	759.38	764.19	236.25	237.74	31.11
AOJ 199	210500	.100	1.13	1.13	1.13	1.13	100.00
AOJ 250C	210500	1.405	37.50	375.00	28.50	285.00	76.00
*****	AOJ		955.51	679.69	390.88	278.04	40.90
BOT 124	051400				14.00	14.00	1400.00
*****	BOT				14.00	14.00	1400.00
BUS 086	051400	.268	15.00	55.97	12.00	44.77	80.00
BUS 120	050200	.267	200.00	749.06	208.00	779.02	104.00
BUS 121	050200	.267	200.00	749.06	176.00	659.17	88.00
BUS 164	051400	.133	60.00	451.12	32.00	240.60	53.33
BUS 252	050900	.100	72.00	720.00	52.50	525.00	72.91
BUS 256	050990	.133	100.00	751.87	66.00	496.24	66.00
BUS 257	050990	.100	72.00	720.00	51.00	510.00	70.83
*****	BUS	1.268	719.00	567.03	597.50	471.21	83.10
CA 163	130630	.067	35.00	522.38	36.00	537.31	102.85
CA 166	130630	.067	35.00	522.38	34.00	507.46	97.14
*****	CA	.134	70.00	522.38	70.00	522.38	100.00
CD 103	130510	.067	22.00	328.35	18.00	268.65	81.81
CD 125	130510	.400	315.00	787.50	249.00	622.50	79.04
CD 127	130510	.200	135.00	675.00	114.00	570.00	84.44
CD 128	130510	.200	135.00	675.00	129.00	645.00	95.55
CD 299	130510	.316	237.38	749.77	97.50	307.95	41.07
*****	CD	1.183	844.38	713.39	607.50	513.26	71.94
CSIS142	070300	.399	108.00	270.67	108.00	270.67	100.00
CSIS143	070300	.399	108.00	270.67	88.00	220.55	81.48
CSIS144	070300	.133	36.00	270.67	20.00	150.37	55.55
CSIS145	070300	.133	36.00	270.67	30.00	225.56	83.33
CSIS174B	070300	.266	148.00	556.39	54.00	203.00	36.48
CSIS175B	070300	.133	100.00	751.87	44.00	330.82	44.00
CSIS274B	070300	.266	98.00	368.42	43.00	161.65	43.87
CSIS275B	070300	.133	100.00	751.87	40.00	300.75	40.00
CSIS299	070300	.200	100.00	751.87	30.00	150.00	3000.00
*****	CSIS	2.062	734.00	355.96	457.00	221.62	62.26
CVTE225	121300	.150	69.00	460.00	51.00	340.00	73.91
*****	CVTE	.150	69.00	460.00	51.00	340.00	73.91
HESC150	219900	.200	60.00	300.00	28.50	142.50	47.50
*****	HESC	.200	60.00	300.00	28.50	142.50	47.50
NURS133	120300	1.592	384.00	241.06	351.60	220.72	91.56
NURS135	120300	1.684	384.00	227.75	345.60	204.98	90.00
NURS137	120300	1.684	384.00	227.97	351.60	208.73	91.56

DIVISION -- BUSINESS AND PROFESSIONAL STUDIES \*\*\* CENSUS CLASSES \*\*\*

SUBJECT	TOP	TOTAL FTEF	MAX WSCH	MAX WSCH	MAX WSCH	EARNED WSCH	EARNED WSCH	EARNED WSCH/FTEF	% OF MAX
CSIS196	070300	.167	72.00	431.13	48.00	287.42	66.66	66.66	
CSIS250	070300	.200	150.00	750.00	66.00	330.00	44.00	44.00	
CSIS251D	070300	.200	72.00	360.00	63.00	315.00	87.50	87.50	
CSIS293	070300	.350	144.00	411.42	144.00	411.42	100.00	100.00	
CSIS296	070300	.350	144.00	411.42	126.00	360.00	87.50	87.50	
CSIS299	070300	.400	144.00	360.00	111.00	277.50	77.08	77.08	
CSIS***	CSIS	16.297	8916.00	547.09	7212.50	442.56	80.89	80.89	
CVTE100	121300	.133	120.00	902.25	86.00	646.61	71.66	71.66	
CVTE101	121300	.267	240.00	898.87	172.00	644.19	71.66	71.66	
CVTE102	121300	1.033	480.00	464.66	344.00	333.01	71.66	71.66	
CVTE103	121300	.517	240.00	464.21	172.00	332.68	71.66	71.66	
CVTE200	121300	.583	225.00	385.93	160.00	274.44	71.11	71.11	
CVTE201	121300	.350	108.00	308.57	102.00	291.42	94.44	94.44	
CVTE202	121300	.350	102.00	291.42	42.00	120.00	41.17	41.17	
CVTE203	121300	.350	102.00	291.42	60.00	171.42	58.82	58.82	
CVTE205	121300	2.100	750.00	357.14	480.00	228.57	64.00	64.00	
CVTE***	CVTE	5.683	2367.00	416.50	1618.00	284.70	68.35	68.35	
FS 110	130400	.200	120.00	600.00	114.00	570.00	95.00	95.00	
FS 115	130400	.200	120.00	600.00	129.00	645.00	107.50	107.50	
FS 120	130400	.400	246.00	615.00	198.00	495.00	80.48	80.48	
FS 199	130400	.800	507.00	21.00	24.00	24.00	114.28	114.28	
FS***	FS	.800	507.00	633.75	465.00	581.25	91.71	91.71	
HESC110	219900	.200	90.00	450.00	54.00	270.00	60.00	60.00	
HESC150	219900	.200	90.00	450.00	84.00	420.00	93.33	93.33	
HESC***	HESC	.400	180.00	450.00	138.00	345.00	76.66	76.66	
MM 299	069900	.200	51.00	255.00	51.00	255.00	100.00	100.00	
MM***	MM	.200	51.00	255.00	51.00	255.00	100.00	100.00	
NURS000	120300	.133	37.00	37.00	37.00	37.00	100.00	100.00	
NURS118	120300	3.236	70.00	526.31	80.00	601.50	114.28	114.28	
NURS120	120300	.225	850.50	262.75	823.50	254.41	96.82	96.82	
NURS155A	120300	.089	292.50	1300.00	193.50	860.00	66.15	66.15	
NURS199	120300	.089	18.00	18.00	18.00	18.00	100.00	100.00	
NURS201	120300	2.044	49.50	556.17	58.50	657.30	118.18	118.18	
NURS203	120300	1.016	480.00	234.81	468.00	228.94	97.50	97.50	
NURS205	120300	.225	300.00	295.18	240.00	236.15	81.00	81.00	
NURS255A	120300	.225	292.50	1300.00	238.50	1060.00	80.53	80.53	
NURS265A	120300	7.194	157.50	700.00	103.50	460.00	65.71	65.71	
NURS***	NURS	7.194	2547.50	354.09	2260.50	314.20	88.73	88.73	
OTA 100	121800	.133	70.00	526.31	30.00	225.56	42.85	42.85	
OTA 101	121800	.217	140.00	645.16	32.00	147.46	22.85	22.85	
OTA 110	121800	.350	210.00	600.00	48.00	137.14	22.85	22.85	
OTA 210	121800	.222	96.00	432.43	68.00	306.30	70.83	70.83	
OTA 220	121800	.283	120.00	424.02	85.00	300.35	70.83	70.83	
OTA 230	121800	.067	24.00	358.20	17.00	253.73	70.83	70.83	

# **Appendix 13**

## **Fiscal Year FTES Analysis Program Report**

**Grossmont College WSCH Report**

	<b>2000-2001</b>	<b>2001-2002</b>	<b>2002-2003</b>	<b>2003-2004</b>	<b>2004-2005</b>	<b>2005-2006</b>
<b>ANTH</b>	3195	3423	3423	3342	2838	3036
<b>AOJ</b>	6869	7895	9237	10421	12206	11000
<b>ARBC</b>	530	580	594	714	992	1066
<b>ART</b>	15470	16824	17294	17075	16571	16350
<b>ASL</b>	1898	1949	2132	2191	2323	3430
<b>ASTR</b>	2127	2514	2544	2445	2517	2382
<b>BIO</b>	18105	19905	20928	21990	22088	22167
<b>BOT</b>	N/A	4304	5249	4534	4981	4471
<b>BUS</b>	17201	13612	14351	13582	11386	10887
<b>CA</b>	N/A	229	250	277	289	220
<b>CCS</b>	3228	3602	3470	3356	2688	2769
<b>CD</b>	6824	7708	7985	7603	7647	6683
<b>CHEM</b>	7500	8475	8828	9760	9278	9137
<b>CHIN</b>	N/A	N/A	295	230	275	285
<b>COMM</b>	12580	12495	12398	12764	13066	12533
<b>CSIS</b>	15580	15188	13646	11808	9595	8846
<b>CVTE</b>	4219	3221	4025	4385	4420	4374
<b>DANC</b>	3512	3797	4071	3773	3979	3618
<b>ECON</b>	6273	6564	6333	6561	5667	7578
<b>ED</b>	201	299	216	126	147	188
<b>ENGL</b>	27861	29775	31762	31953	32279	33840
<b>ES</b>	19017	21100	21604	20583	20785	19109
<b>ESL</b>	7684	8933	9305	8633	7703	7386
<b>FACS</b>	2265	N/A	N/A	N/A	N/A	N/A
<b>FREN</b>	2135	2111	2045	2187	1957	1786
<b>FS</b>	N/A	953	1032	1011	885	948
<b>GEOG</b>	4944	5106	4971	4575	4527	3564
<b>GEOL</b>	1421	1534	1490	1636	1474	1678
<b>GERM</b>	1787	1891	2030	2147	1882	1840
<b>HED</b>	3222	5216	5843	6003	5904	5223
<b>HESC</b>	711	1111	1086	556	566	871
<b>HIST</b>	11121	14172	15073	14832	14781	14050
<b>HUM</b>	3243	3543	3330	3228	2928	2420
<b>ITAL</b>	670	640	610	640	590	470
<b>JAPN</b>	1165	1338	1470	1444	1462	1646
<b>LIR</b>	N/A	N/A	N/A	N/A	36	55
<b>MATH</b>	38315	42000	43778	42825	43479	41258
<b>MCOM</b>	5834	5861	5988	5772	6195	5400
<b>MM</b>	N/A	105	102	N/A	48	N/A
<b>MUS</b>	9694	10247	10899	11232	11313	10385
<b>NURS</b>	8756	8413	8163	9132	7117	7048
<b>OCEA</b>	1113	1227	1236	1316	1338	1422
<b>OTA</b>	615	390	429	494	495	685
<b>PDC</b>	1672	1593	1187	1082	1170	1325
<b>PDSS</b>	497	459	382	368	353	357
<b>PHIL</b>	5976	6347	6177	5826	5448	4797
<b>PHYC</b>	2316	2250	2748	2508	2484	2298
<b>POSC</b>	3965	4638	4908	4731	4765	4006
<b>PSC</b>	990	1005	948	1029	1110	879
<b>PSY</b>	11202	11590	12379	12167	11504	10099
<b>RELG</b>	1065	1239	1245	1155	1209	990

	<b>2000-2001</b>	<b>2001-2002</b>	<b>2002-2003</b>	<b>2003-2004</b>	<b>2004-2005</b>	<b>2005-2006</b>
<b>RESP</b>	1548	1476	1556	1651	2475	3020
<b>RUSS</b>	521	606	900	731	758	768
<b>SCI</b>	1512	1389	1521	1401	1158	1155
<b>SLPA</b>	N/A	158	296	192	387	339
<b>SOC</b>	6105	6632	7473	6669	6966	6519
<b>SPAN</b>	12863	13697	12878	12613	12045	11191
<b>SPDV</b>	149	161	165	147	120	116
<b>THTR</b>	3826	3960	3427	3521	3799	3548
<b>Total</b>	<b>331089</b>	<b>355446</b>	<b>367702</b>	<b>362921</b>	<b>356443</b>	<b>343512</b>



# **Appendix 14**

## **Fiscal Data: Outcomes Profile**

APPENDIX 14

14. Fiscal Data: Outcomes Profile

1. Semester/Year	Fall 2001	Spring 2002	Fall 2002	Spring 2003	Fall 2003	Spring 2004	Fall 2004	Spring 2005	Fall 2005	Spring 2006
2. Enrollment	560	570	676	713	769	644	679	776	686	736
3. Earned WSCH/FTEF	285	265	360	329	366	339	385	357	357	346
4. Total FTES										
5. Cost/FTES										
6. Total Cost/Fiscal Year										
7. Total Revenue										
8. Other Revenue										

**COST** – Cost will vary from one department/program to another for many reasons, e.g., department size. Further variation can be caused by (1) the specific step and class standing of the individual faculty members in a department/program, (2) the lack of costs associated with a chair or coordinator (i.e., another department is carrying this charge), and (3) the costs charged to the department/program for fulfilling a college or district function (e.g., miscellaneous reassigned time).

**EARNED WSCH/FTEF** – These numbers are taken from the Earned WSCH/FTE column in Appendix 12, Subject WSCH Analysis Report. They reflect a department/program's revenue per faculty costs. ("Earned" WSCH is actual student enrollment as compared to "Max" WSCH which is determined purely by classroom size.)

**COST/FTES** – These figures were taken from Appendix 13, Fiscal Year FTES Analysis by Program/TOPS Report. They will most often inversely reflect the WSCH PER FTEF ratio (i.e., a department/program with a low COST PER FTES will have a high WSCH PER FTEF). If this is not the case, then the figures indicate that an above average percentage of the direct COST of the department/program is attributed to non-faculty costs.

**TOTAL REVENUE** – General fund money that the department/program earns from the state for each Full Time Equivalent Student (FTES). For example, in FY01-02, that amount was \$3,500. Other revenue is non-general fund money such as fees, grants, donations, ROP, non-resident student tuition.

**GCCCD**

**06/07 Grossmont College Program Review**

**Program Data Elements**

	01/02	02/03	03/04	04/05	05/06
<b><u>Cardiovascular Technology (1213.00)</u></b>					
Course #					
CVTE 100		CVTE 202			
CVTE 101		CVTE 203			
CVTE 102		CVTE 205			
CVTE 103		CVTE 208			
CVTE 107		CVTE 210			
CVTE 110		CVTE 211			
CVTE 111		CVTE 212			
CVTE 112		CVTE 213			
CVTE 113		CVTE 215			
CVTE 114		CVTE 218			
CVTE 120		CVTE 230			
CVTE 200		CVTE 225			
CVTE 201		CVTE 299			
FTES					
Summer	346	347	422	414	407
Fall	1,618	1,977	2,202	2,189	2,154
Spring	1,603	2,048	2,183	2,231	2,220
Total WSCH	3,567	4,372	4,807	4,834	4,781
Total FTES	118.89	145.73	160.24	161.13	159.37
Top 121300 Cardiovascular Tech - Unrestr	\$498,396	\$541,673	\$578,498	\$512,517	\$547,616
Costs per FTES	\$4,192.08	\$3,716.96	\$3,610.20	\$3,180.77	\$3,436.13
121300 Cardiovascular Tech - Restricted	\$63,267	\$65,329	\$58,255	\$23,170	\$12,624

# Appendix 15

## CVT Student Information Booklet

# STUDENT INFORMATION BOOKLET



**CARDIOVASCULAR TECHNOLOGY DEPARTMENT  
GROSSMONT COLLEGE**

8800 Grossmont College Drive  
El Cajon, CA 92020-1799  
[grossmont.edu/healthprofessions](http://grossmont.edu/healthprofessions)

**August, 2008**

**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE  
STUDENT INFORMATION BOOKLET**

**TABLE OF CONTENTS**

<b><u>SECTION</u></b>	<b><u>PAGE #</u></b>
<b>INTRODUCTION .....</b>	<b>2</b>
<b>SECTION I - EDUCATIONAL PHILOSOPHY OF GROSSMONT COLLEGE.....</b>	<b>4</b>
<b>SECTION II - DESCRIPTION OF THE CARDIOVASCULAR TECHNOLOGY PROFESSION.....</b>	<b>4</b>
A. INVASIVE CARDIOLOGY .....	4
B. NONINVASIVE CARDIOLOGY.....	5
C. VASCULAR TECHNOLOGY.....	5
<b>SECTION III - PHILOSOPHY OF THE CARDIOVASCULAR TECHNOLOGY PROGRAM .....</b>	<b>5</b>
<b>SECTION IV - DESCRIPTION OF THE CARDIOVASCULAR TECHNOLOGY PROGRAM.....</b>	<b>5</b>
A. GENERAL INFORMATION.....	5
B. SEQUENCE OF COURSES.....	6
C. DESCRIPTION OF COURSES .....	7
<b>SECTION V - ACADEMIC AND PROFESSIONAL POLICIES OF GROSSMONT COLLEGE AND THE CARDIOVASCULAR TECHNOLOGY DEPARTMENT .....</b>	<b>10</b>
A. STUDENT CODES OF CONDUCT.....	10
B. ACADEMIC & PROFESSIONAL POLICIES OF THE CARDIOVASCULAR TECHNOLOGY DEPARTMENT .....	11
C. DRESS CODE FOR CLINICAL EXPERIENCE.....	11
D. USE OF PROGRAMMABLE CALCULATORS/CELLULAR PHONES.....	11
E. PROFESSIONAL CONDUCT AT CLINICAL SITES .....	12
F. SUBSTANCE ABUSE.....	12
G. ATTENDANCE POLICY .....	12
H. GRADES & RECORDS .....	13
I. PROBATION - DISMISSAL - READMISSION POLICIES.....	14
J. ADVANCED PLACEMENT .....	15
K. HEALTH & SAFETY ISSUES.....	15
L. SEXUAL HARASSMENT.....	16
M. HEALTH PROFESSIONS COMPUTER CENTER POLICY .....	17
N. GRADUATION REQUIREMENTS .....	17
<b>SECTION VI - STUDENT SERVICES .....</b>	<b>17</b>
A. CARDIOVASCULAR TECHNOLOGY OFFICE .....	17
B. CARDIOVASCULAR TECHNOLOGY LABORATORY .....	17
C. LEARNING RESOURCES CENTER.....	17
D. TUTORING CENTER .....	17
E. DISABLED STUDENT SERVICES .....	17
F. HEALTH & SAFETY OFFICE.....	18
G. COUNSELING CENTER .....	18
H. FINANCIAL AID.....	18
I. PLACEMENT CENTER.....	18
J. VETERANS AFFAIRS OFFICE.....	18
K. MINORITY AFFAIRS .....	18
L. STUDENT ACTIVITIES .....	18
M. ASSOCIATED STUDENTS OF GROSSMONT COLLEGE.....	18
N. CARDIOVASCULAR CLUB .....	18
<b>SECTION VII - PHYSICAL REQUIREMENTS.....</b>	<b>19</b>
<b>SECTION VIII - CLINICAL FACILITIES/AFFILIATIONS .....</b>	<b>20</b>
<b>APPENDIX 1 - COMPETENCIES FOR GRADUATION .....</b>	<b>21</b>

**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE**

**STUDENT INFORMATION BOOKLET**

**INTRODUCTION**

Cardiovascular Technology is a highly technical allied health profession which provides an excellent career in terms of job availability and more importantly, the opportunity to contribute to the care of patients with cardiovascular disease. The Cardiovascular Technology Program at Grossmont College began in 1972 and has graduated approximately 1750 technologists who are employed in clinical facilities throughout the United States. The Program is designed to guide you in a sequential acquisition of knowledge and skills to ensure competency in the specialties of the field, and to assist you in finding employment as an Allied Health Professional.

This *Student Information Booklet* provides information relative to the structure of the Program, and the academic and professional policies of the Cardiovascular Technology Department. The booklet will serve as a reference guide throughout your course of studies. Read it carefully and do not hesitate to ask questions of the faculty.

Welcome to the Cardiovascular Technology Program! Our goal is your success! **YOU HAVE MADE AN EXCELLENT CHOICE!**

The CVT Faculty

---

Student Name: \_\_\_\_\_  
(Please Print)

Student I.D. Number: \_\_\_\_\_

This is to certify that I have read the *Cardiovascular Technology Student Information Booklet* and have been provided the opportunity to clarify my questions. I understand that the *CVT Student Information Booklet* will serve as a guide as I progress through the CVT Program and I agree to adhere to the policies contained herein.

Student Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**Following your review of the *CVT Student Information Booklet*,  
sign and date this copy of the form and return to the CVT Office, Room 340B.  
The following page is a duplicate copy which should remain in the booklet.**

**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE**

**STUDENT INFORMATION BOOKLET**

**INTRODUCTION**

Cardiovascular Technology is a highly technical allied health profession which provides an excellent career in terms of job availability and more importantly, the opportunity to contribute to the care of patients with cardiovascular disease. The Cardiovascular Technology Program at Grossmont College began in 1972 and has graduated approximately 1750 technologists who are employed in clinical facilities throughout the United States. The Program is designed to guide you in a sequential acquisition of knowledge and skills to ensure competency in the specialties of the field, and to assist you in finding employment as an Allied Health Professional.

This *Student Information Booklet* provides information relative to the structure of the Program, and the academic and professional policies of the Cardiovascular Technology Department. The booklet will serve as a reference guide throughout your course of studies. Read it carefully and do not hesitate to ask questions of the faculty.

Welcome to the Cardiovascular Technology Program! Our goal is your success! **YOU HAVE MADE AN EXCELLENT CHOICE!**

The CVT Faculty

---

Student Name: \_\_\_\_\_  
(Please Print)

Student I.D. Number: \_\_\_\_\_

This is to certify that I have read the *Cardiovascular Technology Student Information Booklet* and have been provided the opportunity to clarify my questions. I understand that the *CVT Student Information Booklet* will serve as a guide as I progress through the CVT Program and I agree to adhere to the policies contained herein.

Student Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**This copy should remain in the booklet.**



**CARDIOVASCULAR TECHNOLOGY  
GROSSMONT COLLEGE**

**STUDENT INFORMATION BOOKLET**

**SECTION I - EDUCATIONAL PHILOSOPHY OF GROSSMONT COLLEGE**

GROSSMONT COLLEGE VISION STATEMENT

*“Educational Excellence for a Productive Citizenry.”*

GROSSMONT COLLEGE MISSION STATEMENT

*Grossmont College will provide educational leadership through learning opportunities that anticipate, prepare for, and meet the future challenges of a complex democracy and a global society.”*

The founders of the Grossmont-Cuyamaca Community College District believed that a community college should provide experiences which will greatly broaden the students' educational opportunities and strengthen the society's democratic institutions. The representatives of the community directed the college to provide an education through which students may create rewarding lives, productive for themselves and for society, based on an understanding of the relationship between the past and the challenge of the present and the future.

The Grossmont-Cuyamaca Community College District accepts and is committed to the following premises:

1. The democratic way of life allows each individual the personal freedom and initiative consistent with his/her responsibilities to other persons.
2. The College recognizes the worth of the individual, and the fact that individual needs, interests and capacities vary greatly.
3. The maximum development of the personal, social, and intellectual qualities of each individual must be encouraged.
4. The maximum development and fulfillment of the individual, and the development of the community are increasingly interdependent.
5. All segments of the college community are encouraged to contribute and participate in the operation of the college.

An educational environment, dedicated to these philosophic premises, will produce individuals prepared for life and citizenship in a complex, viable society.

**SECTION II - DESCRIPTION OF THE CARDIOVASCULAR TECHNOLOGY PROFESSION**

Cardiovascular Technologist is a health care professional who, at the direction of a licensed physician, performs diagnostic tests which are used in the diagnosis, treatment, and serial follow-up of patients with cardiovascular disease. Cardiovascular Technology is a title used to describe three basic areas of expertise: Invasive Cardiology, Noninvasive Cardiology, and Vascular Technology. The role of the Cardiovascular Technologist includes, but is not limited to one of the following:

**A. INVASIVE CARDIOLOGY**

1. Assisting the physician in the performance of diagnostic and interventional cardiac catheterization and angiography procedures, and measuring cardiovascular parameters such as cardiac output, blood flow velocity, cardiovascular dynamics, cardiac electrophysiology parameters, intracardiac shunt detection, and valve flow/valve area determinations.
2. Preparing, calibrating and operating medical instrumentation utilized in the cardiac catheterization laboratory, open-heart surgical suite and cardiac research facilities.

*Specialty selection is determined by cumulative grade-point averages in the eight courses of the Core Curriculum.*

*All core curriculum courses must be completed with a grade of "C" or better in order to advance from Spring Semester to specialty training. In order to assure competence in both the cognitive and psychomotor components of lecture/lab courses, students are required to achieve passing grades in both the lecture and laboratory sections. In other words, a passing grade in the lecture portion of the course may not be used to compensate for a failing grade in lab and vice versa. Special circumstances may be considered.*

B. SEQUENCE OF COURSES - All courses must be completed with a grade of "C" or better.

1. Prerequisites

- a. Chemistry 115 - Fundamentals of Chemistry, 4 Units (or equivalent)
- b. Biology 144 and 145 - Anatomy & Physiology, 8 Units (or equivalent)

2. Cardiovascular Technology Major Courses

First Semester, First Year

- a. CVTE 100 - Physical Principles of Medicine I, 2 Units
- b. CVTE 101 - Cardiovascular Physiology I, 4 Units
- c. CVTE 102 - Medical Instrumentation I, 4 Units
- d. CVTE 103 - Laboratory Practicum I, 2 Units

Second Semester, First Year

- a. CVTE 110 - Physical Principles of Medicine II, 2 Units
- b. CVTE 111 - Cardiovascular Physiology II, 4 Units
- c. CVTE 112 - Medical Instrumentation II, 4 Units
- d. CVTE 113 - Laboratory Practicum II, 2 Units

Summer Session

- a. CVTE 114 - Cardiovascular Pharmacology, 2 Units
- b. CVTE 120 - Clinical Practicum I, 3 Units

First Semester, Second Year

- a. CVTE 200 - Medical Instrumentation III, 3 Units
- b. CVTE 205 - Clinical Practicum II, 5 Units  
(Plus Courses in selected specialty as indicated below)
- c. CVTE 201 – Diagnostic Procedures I - Noninvasive, 4 Units  
OR  
CVTE 203 – Diagnostic Procedures I, Vascular Technology, 4 Units  
OR  
CVTE 202 – Diagnostic Procedures I, Invasive, 4 Units  
AND  
CVTE 207 - Invasive Medical Instrumentation I, 2 Units  
AND  
CVTE 208 - X-Ray Physics & Cardiovascular Angiography, 2 Units

Second Semester, Second Year

- a. CVTE 210 - Medical Instrumentation IV, 3 Units
- b. CVTE 215 - Clinical Practicum III, 5 Units  
(Plus Courses in selected specialty as indicated below)
- c. CVTE 211 - Diagnostic Procedures II, Noninvasive, 4 Units  
OR  
CVTE 213 - Diagnostic Procedures II, Vascular Technology, 4 Units  
OR  
CVTE 212 - Diagnostic Procedures II, Invasive, 4 Units  
AND  
CVTE 217 – Invasive Medical Instrumentation II  
AND  
CVTE 218 – Intracardiac Electrophysiology

### C. DESCRIPTION OF COURSES:

a. CVTE 100 - Physical Principles of Medicine I - A course in the mathematics and physical principles of medicine, specifically applicable to the field of Cardiovascular Technology. Designed for students enrolled in the Cardiovascular Technology Program, the course includes studies in the use of mathematic formulas and physics used to evaluate the hemodynamics of the cardiovascular system.

b. CVTE 101 - Cardiovascular Physiology I - A study of the anatomy, physiology, structural relationships, and pathophysiology of the human heart and vascular system. Designed for students enrolled in the Cardiovascular Technology Program, the course will concentrate on specialized terminology, cardiac anatomy, electrocardiography, and hemodynamics.

c. CVTE 102 - Medical Instrumentation I - An integrated course in medical electronics and instrumentation for the cardiovascular technology student. The course will emphasize the concepts of electrical safety, the clinical application of electronic instruments and devices used in cardiovascular medicine, and the characteristics, recording, and measurement of bioelectric signals.

d. CVTE 103 - Lab Practicum and Proficiency Testing - A practicum course designed to insure competency in the basic skills required in the clinical practice of cardiovascular technology. Students acquire skills in the performance of indirect blood pressure measurement, ultrasound imaging of the heart and vascular system, and calculation of specified hemodynamic parameters.

e. CVTE 110 - Physical Principle of Medicine II - This course is a continuation of Cardiovascular Technology 100 with emphasis on the physical characteristics of sound, ultrasound, and Doppler Ultrasound as utilized in medical diagnostic testing. The course explores the physics involved in the formation, propagation, and reflection of sound and ultrasound, the characteristics of the various types of transducers used in echocardiography and vascular duplex scanning, and the mathematical techniques employed in the use of ultrasound to measure and calculate hemodynamic function indices.

f. CVTE 111 - Cardiovascular Physiology II - A continuation of Cardiovascular Technology 101, Cardiovascular Physiology I with emphasis on electrocardiographic arrhythmia recognition, the anatomy, physiology, and pathophysiology of specified congenital heart disease, the structure and function of the arterial, venous, capillary and pulmonary circulations and the techniques for measuring and/or calculating specified hemodynamic function indices.

g. CVTE 112 - Medical Instrumentation II - A continuation of basic principles in medical electronics and instrumentation, this course will emphasize the issues of medical signal transduction, conditioning and recording. The application of computer technology in analog to digital conversion, digital to analog conversion and medical data logging will also be studied. This course also surveys the types of medical electronics and instrumentation utilized in testing throughout the hospital and presents their clinical results.

h. CVTE 113 - Lab Practicum and Proficiency Testing II - This course is a continuation of CVTE 103, Laboratory Practicum and Proficiency Testing I. It is designed to provide lecture and laboratory practicum necessary to develop cognitive and manipulative skills in the clinical operation of specified cardiovascular instrumentation, and in the performance of diagnostic tests.

i. CVTE 114 - Cardiovascular Pharmacology - This course introduces the concepts of drug classification, pharmacokinetics, delivery systems, drug interactions and dosage. A survey of all drug categories will be presented, but emphasis will be placed on cardiac and vascular medications. Drugs administered during cardiovascular procedures is the focus of this course.

j. CVTE 120 - Clinical Practicum I - This course provides an introduction to cardiovascular diagnostic testing in the clinical environment. Elements of routine patient care, the patient-technologist relationship and the professional relationship between the physician and the technologist in the clinical practice will be defined. Students are assigned to clinical experiences in local hospitals in addition to on-campus lecture and laboratory classes. This course is offered during the summer between the first and second years of the Cardiovascular Technology Program.

k. CVTE 199 - Special Studies or Projects in Cardiovascular Technology - Individual study, research, or projects in the field of Cardiovascular Technology under instructor guidance. Written reports and periodic conferences required. Content and unit credit will be determined by student/instructor conferences and/or, the CVT Department. This course may be repeated for a maximum of nine units.

l. CVTE 200 - Medical Instrumentation III - A course of instruction of the theory, calibration, operation and clinical application of specified diagnostic medical instrumentation. The lecture portion of the course explores the relationship of components of the medical history and physical examination to diagnostic test findings, and introduces the student to the application of diagnostic instrumentation in medical research. The laboratory section provides advanced instruction in the performance of specified diagnostic tests in Invasive, Noninvasive, and Vascular technology.

m. CVTE 201 - Diagnostic Procedures I, Noninvasive Cardiology - A course of instruction in the specialized techniques of noninvasive cardiovascular testing and the evaluation of cardiovascular disease. Lectures will stress the performance and analysis of the echocardiogram, the relationship of echocardiographic findings to cardiac pathology and the measurement and calculation of specified hemodynamic parameters. Laboratory sessions are conducted in noninvasive cardiac laboratories in local hospitals with advanced instruction in M-Mode and two-dimensional echocardiography.

n. CVTE 202 - Diagnostic Procedures I, Invasive Cardiology - This course provides advanced study in medical electronics and instrumentation, focusing on devices utilized in invasive cardiology. Emphasis will be placed upon advanced physiologic recording devices, blood pressure transducers, cardiac output measurement systems, fluid delivery and routing systems, as well as mechanical injector systems.

o. CVTE 203 - Diagnostic Procedures I, Vascular Technology - A course of instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology. Lectures will stress the performance and analysis of vascular ultrasound scanning, spectral analysis, and the interpretation of scanning and nonscanning modalities for vascular testing. Laboratory sessions are conducted in vascular laboratories in local hospitals, with instruction in techniques of duplex scanning of the cerebrovascular and lower-extremity vasculature.

p. CVTE 205 - Clinical Practicum II - A laboratory course providing clinical practicum with emphasis on the calibration and operation of medical instrumentation used in Invasive, Noninvasive, and Vascular Laboratories in local hospitals and clinics with which the CVT program is affiliated. The performance of specific diagnostic tests, calculation of hemodynamic data, and professional performance in the clinical environment will be stressed.

q. CVTE 207 - A course of instruction in the theory, calibration, operation and clinical application of specified diagnostic medical instrumentation with emphasis on the relationship of findings in the medical history to diagnostic test findings, and introduces the student to the application of diagnostic instrumentation in medical research.

r. CVTE 208 - A course providing advanced study in medical electronics and instrumentation, focusing on imaging technologies utilized in invasive cardiology. Emphasis will be placed upon understanding the x-ray imaging chain, x-ray physics, cardiovascular angiographic projections, analog and digital cine angiographic techniques, fluoroscopy techniques, optical principles, intravascular ultrasound and doppler techniques. Additional emphasis is placed on data collection, analysis and interpretation of clinical patterns.

s. CVTE 210 - Medical Instrumentation IV - A continuation of Cardiovascular Technology 200, Medical Instrumentation III, with emphasis on the theory, calibration, operation and clinical application of specified diagnostic testing. The lecture portion of the course provides an overview of biostatistics as applicable to medical research, continued exploration of the medical literature through reading and writing assignments, and a seminar on cardiovascular disease. The seminar is conducted by physicians and technologists from the three specialties of Cardiovascular Technology and is designed to review the current topics in medical research.

t. CVTE 211 - Diagnostic Procedures II, Noninvasive Cardiology - This course is a continuation of Cardiovascular Technology 201, Diagnostic Procedures I, Noninvasive Cardiology. It is an advanced course in the techniques utilized in the diagnosis and serial follow-up of cardiovascular disease with emphasis on pulsed wave, continuous wave, and color-flow Doppler techniques; conventional and echocardiographic stress testing; and transesophageal echocardiography.

u. CVTE 212 - Diagnostic Procedures II, Invasive Cardiology - This course continues the advanced study of invasive cardiac medical electronics and instrumentation. Emphasis will be placed upon advanced diagnostic and therapeutic procedures, including coronary blood flow measurements, electrophysiology procedures, pacemaker and other antiarrhythmic devices, angioplasty, atherectomy, laser, and valvuloplasty techniques. Mechanical support systems such as the intra aortic balloon pump and other ventricular assist devices will be introduced.

v. CVTE 213 - Diagnostic Procedures II, Vascular Technology - An advanced course of instruction in the specialized techniques of noninvasive testing of the human vascular system and the evaluation of vascular pathophysiology. Lectures will stress the performance and analysis of vascular ultrasound scanning, spectral analysis, and the interpretation of scanning and non-scanning modalities for vascular testing. Laboratory sessions are conducted in vascular laboratories in local hospitals, with advanced instruction in techniques of duplex scanning of the cerebrovascular, lower-extremity, and abdominal vasculature.

w. CVTE 215 - Clinical Practicum III - A laboratory course providing a continuation of clinical practicum with emphasis on the acquisition and refinement of skills in the calibration and operation of medical instrumentation used in the Invasive, Noninvasive, and Vascular Laboratories in local hospitals and clinics with which the CVT Program is affiliated. The performance of specific diagnostic tests, calculation of hemodynamic data, and professional performance in the clinical environment will be stressed. Emphasis will be on consolidation of skills acquired in CVTE courses into complete diagnostic studies, including qualitative diagnostic interpretations.

x. CVTE 217 - A continuation of Cardiovascular Technology 200, Medical Instrumentation III, with emphasis on the theory, calibration, operation and clinical application of specified diagnostic testing. The lecture portion of the course provides an overview of biostatistics as applicable to medical research, continued exploration of the medical literature through reading and writing assignments, and a seminar on cardiovascular disease. The seminar is conducted by physicians and technologists from the three specialties of Cardiovascular Technology and is designed to review the current topics in medical research.

y. CVTE 218 - This course provides advanced study in medical instrumentation, introducing the topic of intracardiac electrophysiology. The content includes procedures and case studies of intracardiac electrograms, which are used to map the electrical currents within the heart. Computerized analysis of these patterns helps the cardiologist select the most appropriate treatment for chronic arrhythmia, including pacemaker technology and implantable cardioverter-defibrillators (ICD). A review of antiarrhythmic drug therapy will also be provided.

z. CVTE 299 - Selected Topics in Cardiovascular Technology - Selected topics in CVT not covered by regular catalog offerings. Course content and unit credit to be determined by the Division of Business and Professional Studies in relation to community-student and/or available staff. May be offered as a seminar, lecture or lecture/lab course.

## **SECTION V - ACADEMIC AND PROFESSIONAL POLICIES OF GROSSMONT COLLEGE AND THE CARDIOVASCULAR TECHNOLOGY PROGRAM**

### **A. STUDENT CODES OF CONDUCT**

1. **Grossmont College Student Code of Conduct:** The primary purpose of this policy is to provide information to all students in the Grossmont-Cuyamaca Community College District about the type of conduct that is expected of each student and to set forth procedures that are fair and timely, both to the student and to the District. The California Education Code requires every community college governing board to adopt specific rules governing student behavior along with applicable penalties for violation of these rules and regulations. Grievance procedures from a student enrolled in the program should begin with a conference with the instructor concerned, followed by a meeting with the Director of the Program, and the Division Dean, in that order. The complete Student Code of Conduct is available in the office of the Dean of Student Activities. The following is a summary of the Code.

a. Conduct for which a student may be disciplined, if it is college related:

- (1) Theft or non-accidental damage to college property
- (2) Forgery, alteration, or misuse of records, documents, or identification.
- (3) Cheating or plagiarism in connection with an academic program.
- (4) Physical or verbal abuse or any threat of force.
- (5) The sale or possession of controlled substances or alcoholic beverages.
- (6) Unauthorized entry to or unauthorized use of college property.
- (7) Engaging in lewd, indecent, or obscene behavior.
- (8) Possession or use of explosives or deadly weapons.
- (9) Failure to comply with directions of college officials.
- (10) Obstruction or disruption of the educational process.
- (11) Violation of any order of the college president or his designee or other college officials.
- (12) Soliciting or assisting another to do any act which would subject another to penalties under this code.
- (13) Sexual harassment. (College policy available from the CVT Office. See page 15, section I.)
- (14) Any other cause identified as good cause by the Education Code not listed above.

b. Penalties which may result from violation of the Student Code of Conduct:

- (1) Warning - Verbal or written notice to the student describing behavior that may be cause for disciplinary action.
- (2) Probation - May include exclusion from participating in privileges or extra-curricular activities for a specified period of time. The imposition of disciplinary probation includes notification to the student in writing of the reason and conditions of probation.
- (3) Short Term Suspension - (Instructor) May suspend for good cause as described above from a given class for the class period or the class period AND the next class meeting. Instructor's decision is final and cannot be appealed.
- (4) Administrative Suspension - The college President or designee is authorized to suspend a student for good cause for a period not to exceed five (5) days.
- (5) Withdrawal of Consent to Remain on Campus - Effected when reasonable cause exists to believe the continued presence of the student constitutes a substantial and material threat to persons or property. (Fourteen (14) calendar-day limit.)
- (6) Long Term Suspension - Not to exceed two (2) years. Exclusion from student status. (Refer to the Code for details.)
- (7) Exclusion - Permanent denial to all campus privileges including class attendance.

c. Appeals - Only long-term suspension and expulsion are subject to the hearing and appeal process. These procedures are on file in the office of the Dean of Student Activities.

B. **ACADEMIC INTEGRITY** - The Cardiovascular Technology profession demands the highest moral and ethical standards. Cheating will not be tolerated in the Program just as it will not be tolerated in clinical practice. The official Grossmont College policy on cheating is detailed in the Student Code of Conduct which is available in the office of the Associate Dean of Student Services. In accordance with this policy, the CVT Department defines cheating as any one of the following:

1. Talking to another student during an exam or quiz.
2. Copying (or attempting to copy) answers from another student's paper during exams or quizzes.
3. Plagiarism in connection with any academic process including submitting tracings, measurements or reports which were prepared by anyone other than yourself.
4. Soliciting or assisting another student to do any act which would violate this policy.

**Instructors have the authority to suspend any student suspected of cheating for the class meeting in which the incident occurs and one additional class meeting. Following a review of the incident, the college policy prevails and the student may be denied continued and/or future access to the Program. Refer to the Student Code of Conduct for additional information on this policy.**

C. **DRESS CODE FOR CLINICAL EXPERIENCE CLASSES** - All Grossmont College CVT students are required to adhere to the following dress code when assigned to clinical labs. It is the student's responsibility to present a professional image so as to reflect well on themselves, the clinical site and the CVT Program.

1. All students will be neat and professional in appearance.
2. All students will wear a clean, neatly-pressed, white lab coat. The lab coat must have the Grossmont College student patch sewn to the left sleeve and a picture ID card, which is available from the A.S.G.C., on the left pocket, giving the student's name and identification as a Grossmont College CVT student.
3. Hair will be neat and out of the way. Longer hair must be fastened behind for reasons of cleanliness.
4. Shoes must be closed and soft-soled. Sandals are not acceptable.
5. Jewelry and makeup must be limited and understated. One set of simple, inconspicuous stud or post earrings are acceptable. No dangling earrings or hoops. No ornate rings, multiple chain necklaces or bracelets. Piercing of any other visible body part except ears is not acceptable and must be removed for clinical experience.
6. The Center for Disease Control has released a recommendation regarding artificial nails in the clinical setting. Artificial nails are not allowed in the high-risk areas such as intensive care or coronary care units, operating rooms or the cardiac catheterization laboratory. To comply with this recommendation and policies of our clinical sites, artificial nails are not allowed in any clinical area.
7. The formality of dress will vary at different clinical sites. The student is responsible for knowing and conforming to the expected dress code at all times. Regardless of the accepted practice at the clinical site, students are never to wear Levi's, blue jeans, T-shirts, boots, skirts or dresses shorter than knee length or other casual attire which exposes the midriff. Students are not to wear surgical scrub attire unless specifically instructed to do so by the instructor or clinical supervisor.
8. The program has arranged with an apparel company for students to purchase embroidered scrub suits for a reasonable price. The scrub top is embroidered with the program name and the college. Order forms will be available from the CVT office.

**FAILURE TO MEET THE REQUIREMENTS OF THIS DRESS CODE WILL RESULT IN THE STUDENT BEING SENT HOME AND RECORDED AS ABSENT.**

D. **USE OF PROGRAMMABLE CALCULATORS/CELLULAR PHONES** - The Cardiovascular Technology Program does not allow the use of programmable electronic calculators in the first year of the program. The instructors will specify acceptable types of calculators for use in the program. The use of

cellular phones is disruptive to class. Phones must be turned off or silenced when brought to the classroom. Text messaging is never allowed during class or exams.

- E. **PROFESSIONAL CONDUCT AT CLINICAL SITES** - Improper student conduct and/or failure to respond to supervision in the clinical setting can result in patient injury, personal and institutional civil liability, loss of the use of clinical facilities, and potential loss of program accreditation. Therefore, the instructor or clinical supervisor has the authority to take immediate corrective action, including immediate dismissal from the clinical area if unsafe practices are observed.

**Students are expected to act as professionals with the utmost respect for patient confidentiality. This means that discussion of patients' problems in the public places such as cafeterias and elevators, and any discussion of a patient's problems with fellow students are inappropriate. Students may be required to sign a confidentiality form.**

- F. **SUBSTANCE ABUSE - DRUGS AND ALCOHOLIC BEVERAGES** - The faculty of the CVT Program supports the policies related to drug or alcohol abuse as defined by the Grossmont College Board of Trustees as follows:
1. The Board recognizes that drug and alcohol abuse is an occupational hazard of medicine. It therefore recommends that students be apprised, at an early point in their instruction, that abuse of drugs, alcoholic beverages or other chemicals, can prevent them from continuing in the program and lead to criminal and civil censure. Students who exhibit this behavior will be referred to appropriate support services and may be dismissed from the Program.
  2. Any student who uses, sells, or distributes alcoholic beverages, narcotics, or hallucinogenic drugs or substances on any site of the Grossmont Community College district or affiliated clinical sites will be suspended immediately by the appropriate President for up to five days. In addition, action for dismissal from the college may be recommended to the Governing Board.
  3. It is the policy of the Board to prohibit the possession or drinking of alcoholic or malt beverages at college functions on campus, at college-sponsored events or official functions of college organizations in accordance with the California Administrative Code, Section 24.

G. **ATTENDANCE POLICY**

1. **CVT Classroom Attendance Policy** - The CVT Department adheres to the Grossmont College policy on attendance which states that the number of absences per semester cannot exceed the number of times a given class meets per week. Physician-verified illness or bonafide emergencies will be considered, provided the student is able to meet the class objectives. Students exceeding the maximum permissible absences in a particular course may not receive credit and may be dropped via the excessive absence process.
2. **CVT Clinical Attendance Policy** - The Cardiovascular Technology Program requires a major commitment of time and energy. Due to the variety of experiences and scheduling required, it is virtually impossible to be enrolled in the Program without reliable transportation. If it is necessary for the student to work while enrolled in the Program, it is expected that arrangements be made to insure no interference with assigned clinical time. It is also recommended that work hours not be scheduled immediately prior to attendance in clinical laboratory. Students in the CVT Program have specific activities for which they must assume responsibility and maintain a certain degree of flexibility. If case loads are particularly light, the clinical schedule may be altered. Advance notice of changes in scheduling will be made in the most timely fashion possible. Attendance at clinical experience classes follow the same policy as for classroom work. (i.e. A student must not miss more clinical time in one semester than is assigned for one week.) Make-up time in clinical laboratories may or MAY NOT be available, in which case the student's grade will be affected. Students should make every effort to fulfill assigned clinical hours.
3. **Extended Sick Leave or Pregnancy Leave**
  - a. **Antepartum** - Physician verification and clearance to continue in the program must be provided as soon as pregnancy is determined. Physician clearance to continue in the Program must be provided monthly following determination. The student may remain active in the program until delivery provided course objectives are met and the attendance record is satisfactory. Early notification and continued physician clearance is mandatory so that clinical experiences may be modified for safety of the mother and fetus.
  - b. **Postpartum** - The student may return to the program no sooner than one week following delivery.



A physician's clearance to continue is required.

4. Extended Illness and/or Post Operative - A physician's clearance is required and restrictions stipulated by the physician will be honored provided progress in the program continues. The maximum absence policy of the College will apply unless judged inappropriate by faculty review on a case-by-case basis.

## H. GRADES & RECORDS

1. Grades will be assigned and processed in accordance with current College policy. All courses in the major and prerequisites must be completed with a grade of "C" or better. Grades and supporting documents required by the College are filed in the Admissions and Records Office at the end of the semester. The Grossmont College Catalog states: "In the absence of mistake, fraud, incompetency or bad faith, the determination of the students grades by the instructor shall be final once they have been filed. Questions regarding final grades should be brought to the attention of the Program Director and Director of Admissions and Records during the semester immediately following."
2. In order to assure competence in both the cognitive and psychomotor components of lecture/lab courses, students are required to achieve passing grades in both the lecture and laboratory sections in all courses. In other words, a passing grade in the lecture portion of the course may not be used to compensate for a failing grade in lab and vice versa.
3. Incomplete Grades

An Incomplete ("I") grade may be awarded at the discretion of the instructor when all the following conditions exist:

- The student has contacted the instructor of his/her course and both have agreed to the provisions established in the *Incomplete Grade Contract*.
- The student has had an unforeseen emergency that prevents him/her from completing the remaining coursework. Evidence to verify the emergency may be required.
- The student has completed a minimum of 50% of the required coursework, as specified in the course syllabus, with regular attendance, and there is still the possibility of earning a passing grade.

The student is responsible for acknowledging the following:

- The student is responsible for completing the coursework as outlined in the *Incomplete Grade Contract*; upon satisfactory completion, the instructor will replace the "I" with a grade.
- The "I" is not used in calculating GPA or units.
- The "I" cannot be cleared by re-enrolling in the course.
- The grade earned on the portion of work completed for the course (as specified in the course syllabus) must be used to calculate the final grade for the course.
- A signed *Incomplete Grade Contract*, in which the student agrees to complete remaining coursework, must be filed by the instructor. In the case of an extreme emergency where the student is unable to meet with the instructor, the instructor may initiate and file the *Incomplete Grade Contract*, sending a copy to the student for signature. The contract is invalid without both instructor and student signatures. Without the student's signature, the "I" will revert to the default grade at the end of the following semester.
- Class time and/or assignments outlined in the *Incomplete Grade Contract* must be completed by the end of the 16-week semester following the date on the contract. If not, the "I" will revert to the default grade assigned on the *Incomplete Grade Contract*.
- An extension of time for removal of the "I" must be petitioned by the student. The petition must include evidence of approval from the instructor.
- In the event that the original instructor of record on the *Incomplete Grade Contract* is unavailable, the student must see the appropriate department chair or dean for alternate arrangements.

I. ACADEMIC JEOPARDY - CLINICAL INCIDENT REPORT - DISMISSAL - EXIT INTERVIEW - READMISSION POLICIES

1. Notification of Academic Jeopardy is a formal process by which a student is notified of failure to meet expected academic standards. Initiation of the process occurs when the faculty feels that academic failure is likely unless corrective measures are developed. The process includes preparation of a *Student Assessment Form* which details the areas of concern, the recommended course of action, and the timeline for meeting appropriate standards. The form is signed by the student, the instructor and Program Director. The student will be provided a copy of the assessment form and a copy will be placed in the student's file.

Tutoring in general education and prerequisite science courses is available through the Learning Resource Center. Tutoring in CVT courses is available from the individual instructors within the program. The student is responsible for identifying specific areas of educational need and contacting the instructor for assistance. The student and the appropriate faculty will define specific learning objectives and develop a plan within a specified time frame to meet the stated objectives of the course.

2. Clinical Incident Policy - An alert, professional attitude is absolutely essential at all times in the clinical setting. A clinical incident is defined as a situation in which a student places a patient in actual or potential danger, is unprepared to participate in clinical activities, or demonstrates unprofessional conduct. A Student Performance Assessment will be prepared with any occurrence as noted above in order to:
  - (a) Identify those students who need assistance in performing the CVT Competencies for any given semester.
  - (b) Identify specific problems of unprofessional behavior.
  - (c) Determine remedial measures that will assist the student in successfully completing the program. Clinical Incident Reports are retained in the student's record until graduation, at which time they are destroyed.
3. Dismissal - A student is subject to dismissal from the CVT Program based on, but not limited to, the following:
  - a. Academic Failure
  - b. Excessive absence or tardiness as defined in this booklet
  - c. Violation of the Student Codes of Conduct
  - d. Dangerous or unprofessional conduct in the clinical setting as defined in the Clinical Incident Policy
  - e. Refusal or inability to follow directions which leads to acts which endanger others in the laboratory classroom, or clinical setting
  - f. Cheating (Refer to CVT Academic Standards and Policies section in this booklet)
4. Exit Interview Policy - Should it become necessary for a student to leave the program for any reason, an exit interview will be conducted by the Program Director and an *Exit Interview Form* will be completed. This form will become part of the student's record and will be reviewed by the faculty in considering readmission should the student desire to continue at a later date.
5. Readmission Policy - Readmission to the CVT Program is not automatic nor guaranteed and will be considered by the CVT faculty on an individual basis. Students who leave the Program in good academic and clinical standing will be readmitted to the Program upon recommendation of the CVT full time faculty. Students who leave the program due to academic failure will be considered for readmission for one time only. Special consideration may be given in extraordinary circumstances.
  - a. Procedure for re-entry for students dismissed due to Academic Failure
    - (1) Submit a Program application to the CVT Office by May 1st.
    - (2) If requested, meet with the CVT faculty in order to present strategies developed and implemented to enhance chances for success.
    - (3) If the application is approved, the applicant will be placed at the bottom of the waiting list for the next convening class.

- (4) The CVT Program is an integrated curriculum in which the content of each course interacts with and depends on the content of the other courses. Therefore, if the student reenters the Program either in the Core Curriculum or second year specialty, enrollment is required in ALL concurrent courses, whether previously passed or not. (A petition process is required to repeat courses previously completed with a satisfactory grade.)
- b. Dismissal due to Cheating, Unprofessional Conduct, or Dangerous Conduct - The CVT Program prepares students to work in medical-diagnostic specialties. The nature of the work requires that students use sound judgment and follow directions issued by physicians, instructors and/or clinical supervisors in order to prevent patient injury. Since this work requires the highest ethical and professional standards, students dismissed for reasons of cheating, unprofessional conduct, or dangerous conduct will not be considered for readmission.

#### J. ADVANCED PLACEMENT

An individual evaluation will be conducted for students wishing to transfer into the program from other schools, or to challenge the core curriculum for advanced placement into the second year of the program. A successful challenge requires a passing grade on the final exams for the eight (8) courses in the core curriculum. *Placement will be based on space available, with students who are fully-matriculated in the program having first priority.*

#### K. HEALTH & SAFETY

1. Physical/Dental Exam - All students are required to have a physical and dental examination prior to entry into the program. Participation in some components of the program requires physical exercise such as lifting when assisting patients from beds to wheelchairs or gurneys, gurneys to beds, and in some cases, pushing heavy equipment from one location to another. Persons prone to disorders such as tendonitis, carpal tunnel syndrome, or chronic neck/back pain which may impede performance of clinical tasks should obtain advice from a faculty member of the CVT Program and their physician prior to entering the field.
2. Immunizations - A major component of the CVT curriculum involves clinical experience in local hospitals and clinics. In order to protect both students and patients, documentation of specified immunizations or seropositivity must be provided on entry to the program. Documentation must also be submitted which verifies an annual, negative screening test for tuberculosis.
3. CPR Training Requirements - Students are required to have a Basic Life Support/CPR Certification prior to the beginning of CVTE 120 - Clinical Practicum, I during the summer session between the first and second year of the Program.
4. Medical Malpractice Insurance - Medical Malpractice Insurance is required prior to beginning clinical training. Insurance forms are supplied by the Program and the cost is approximately \$20.00 per year.
5. Personal Hygiene - The structure of many of the labs in the program requires students to act as patient-models for performance of diagnostic tests by your peers. It is essential that all students maintain high standards in their personal hygiene and grooming and that each student have a pair of shorts available for segmental blood pressure measurements. Female students are also required to have a top suitable to wear during the performance of electrocardiograms and echocardiograms.
6. Splash Goggles - Splash goggles are required to be available during assignment to clinical facilities. Splash goggles may be purchased at the College Bookstore.
7. Student Injury -The following procedures must be followed should injury occur while on campus or in approved clinical sites as part of the instructional program. When a Health Professions student is injured on campus in a non-clinical work experience related accident or illness, that student would seek treatment and services as any other student. You may be treated by your own medical services and insurance and/or go to the campus Health Services office and receive treatment, insurance services and make an accident report.

Any bloodborne pathogen exposure incident is serious and needs an immediate response and medical evaluation.

If you are injured at a clinical site while doing your clinical experience, you are covered for workers compensation by Grossmont-Cuyamaca Community College District and eligible for treatment at a Sharp Occupational Health Services facility.

- a. Notify your clinical site supervisor (may be the person you report to at the clinical site, or who immediately supervises you.)
  - b. As soon as possible, but within 24 hours, notify your College clinical supervisor (instructor, department head or, if not immediately available, the Health Professions Office at 619-533-7301, or Risk Management at 619-644-7710. Ask for a referral and the paperwork for reporting the incident.
  - c. Some paperwork from Grossmont College will need to be completed. If convenient, do this before going for medical treatment. If it is medically urgent or more convenient to seek medical evaluation and treatment first, you can receive a referral by phone after you decide which facility you will go to and complete steps 1 and 2 above.
  - d. Proceed to one of the Occupational Health Services clinics. Locations are available from the CVT Office or from Risk Management.
  - e. The Occupational Health clinic will begin medical treatment. If you had a bloodborne pathogen exposure incident, you will be given counseling and a schedule for appropriate testing, treatment and follow up. Return visits may be necessary. It is important to follow through on the recommended course of action.
  - f. Within 24 hours pick up from your College clinical supervisor, the Health Professions office, or the Risk Management office (In the District Annex building in parking lot #4) the forms and instruction you will need. On the *Injury Illness/Accident Report* form (rev.2/05), on the top right, check the "Student Worker" checkbox and complete the form. On the *Workers Compensation DWC-1* form complete items 1-8. These forms and instructions are also available on the [www.gcccd.edu](http://www.gcccd.edu) website under departments/Risk Management & Benefits/Form/Workers' Compensation Forms (on the bottom right window).
  - g. Return the forms to your College clinical supervisor, the Health Professions office, or the Risk Management office along with copies of any forms received from Sharp.
8. Radiation Exposure - It is not the intent of the program that students be trained to expose patients to ionizing radiation. Students will be protected against and monitored for exposure to ionizing radiation during their clinical rotations in cardiac catheterization or cardiovascular nuclear studies laboratories.
- L. SEXUAL HARASSMENT - It is the policy of the Grossmont-Cuyamaca Community College District to provide employees and students with a working and educational environment free of discrimination. Sexual harassment is discrimination. It is a form of misconduct that can decrease work productivity, undermine the integrity of employee-student relationships, decrease morale, and cause severe emotional stress and physical damage. Such conduct may result in disciplinary action up to and including dismissal or expulsion from classes, depending on the nature of the harassment. According to state and federal law, sexual harassment may be defined as "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature".

If you believe that you are a victim of sexual harassment, phone or visit the District Campus Police located in the east portion of parking lot 5, Building 600A, Phone 619-644-7654.

- M. HEALTH PROFESSIONS COMPUTER CENTER POLICY - Computer lab usage by students in the CVT Program consists of specific assignments by individual instructors, and open lab hours during which students may work on Computer Aided Instruction and/or general word processing. Hardware/software maintenance and legal/licensure issues necessitate the following guidelines:
1. Students are prohibited from entering any directory or subdirectory.
  2. Students are prohibited from editing or copying any program, directory, or subdirectory.
  3. Students are prohibited from adding personal software to the computer systems.
  4. Students are prohibited from altering the hardware or software configuration of the computers in the lab.
  5. All students are required to review and sign the **Grossmont –Cuyamaca Community College District Computer Security and Use Statement** during the first week of the program. The form will be provided by the program.

N. GRADUATION REQUIREMENTS

1. Students pursuing the Associate in Science Degree should make an appointment with the Grossmont College Counseling Center to develop a program of studies as appropriate to reach your goal. This should be accomplished early in your program of studies to insure completion of required courses in general education sections. Students requesting a modification of major via courses taken at other colleges/universities must provide a completed request form and a course outline/description of the substituted course.
2. A Certificate of Achievement will be awarded to graduates who complete 3 Units of English (110 or 120) and 3 units of Communications (120 or 122) in addition to the major requirement.
3. **NOTE:** *Students in the Invasive Track of the program are required to obtain Advanced Cardiac Life Support (ACLS) certification, and sit for the national registry examination administered by Cardiovascular Credentialing International (CCI) prior to graduation. Fees for ACLS certification and the registry exam are required of the student.*

SECTION VI - STUDENT SERVICES

- A. CARDIOVASCULAR TECHNOLOGY OFFICE - The Cardiovascular Technology Office is located in room 340B (Health Professions). Phone: 644-7302. The CVT classrooms and laboratories are located in the Science & Technology Building (Bldg. 300N). To reach members of the faculty, dial the following numbers:
- |              |   |          |
|--------------|---|----------|
| Andy Biondo  | - | 644-7895 |
| Rick Kirby   | - | 644-7302 |
| Helen Potter | - | 644-7352 |
| Don Ridgway  | - | 644-7317 |
| Dan Sullivan | - | 644-7451 |
- B. CARDIOVASCULAR TECHNOLOGY LABORATORY - Located in Room 329A, the CVT Laboratory maintains a comprehensive library of video tapes, and tape/slide presentations. These materials are available from the laboratory technician for check-out to all CVT students. The phone number for the health professions lab is 644-7316.
- C. LEARNING RESOURCES CENTER - The Learning Resources Center (LRC) is the large building in the center of the campus located directly behind the administration complex. It is organized into the Library and the Tech Mall. The library is well supplied with a variety of reference books, periodicals and medical journals for student use and is continually updated. The telephone number for the library is 644-7355.
- D. TUTORING CENTER - The tutoring center is located in the Tech Mall. The center provides tutoring in designated subject areas. The telephone number is 644-7387.
- E. DISABLED STUDENT SERVICES - The Disabled Services department provides services to students

with various disabilities including learning disability, speech impairment, hearing or visual impaired and provides transportation for students with orthopedic problems. The Center provides diagnostic testing and specific tutoring for students with learning difficulties. The telephone number is 644-7112.

- F. HEALTH & SAFETY OFFICE - Health counseling, the interpretation of health problems, health guidance, and referral is available through the college Health & Safety Officer. Services including physical examinations, immunizations & TB testing, first aid, vision screening, hearing screening and optometry are available upon request. On-campus and school related activities insurance coverage for accidents is handled through this office. Coverage is at the Workers' Compensation rate. Any accident occurring to students on campus or in clinical areas should be reported to the Health & Safety office immediately. The phone number is 644-7208.
- G. COUNSELING CENTER - (Phone Number: 644-7210) The Counseling Center is available to assist students with academic planning, career exploration, crisis situations, personal adjustment, interpersonal relations, marriage and family concerns, divorce adjustment and stress reduction. Personal development classes for college credit focusing on careers and study skills are available.

The Counseling Center is staffed by educationally qualified, professional, licensed and credentialed counselors. Appointments may be made by calling the Center at 644-7208, Monday through Thursday, 8:00 AM - 7:30 PM, and Friday from 8:00 AM - 4:30 PM. All contacts are confidential.

- H. FINANCIAL AID - Students who need financial assistance to remain in school may apply for aid in the form of grants, scholarships, loans and the college work study program. Information and applications for financial aid may be obtained from the Financial Aid Office in Room 108. Students who are members of the Associated Students of Grossmont College (ASGC) are also eligible for short-term, interest-free book loans. Book loan applications are available in the Student Government Office. Phone number 644-7129.
- I. PLACEMENT CENTER - The Placement Office coordinates campus-wide full-time and part-time placement for Grossmont College students. Work experience positions which will enhance the student's course of instruction are also offered. Part-time job placement serves students seeking jobs to provide income while completing their education. The Placement Office is located in the Counseling Center.

Graduates of the CVT program have experienced excellent placement to date. Future graduates will have no difficulty in finding employment in the field. A willingness to relocate from the San Diego area may be necessary.

- J. VETERANS AFFAIRS OFFICE - The Veterans Affairs Office serves to assist veterans in qualifying, applying for and maintaining VA educational benefits. Phone number 644-7165.
- K. MINORITY AFFAIRS - Recruitment and support systems are available for African American, Native American, Latino American, and other ethnic minorities. Detailed information on these services is available through the Student Activities Office, Phone Number 644-7600.
- L. STUDENT ACTIVITIES - (Phone Number 644-7265) The Dean of Student Activities provides administrative assistance to the ASGC, clubs, food services, athletics, bookstore, campus police and parking operations. Questions pertaining to these functions can be directed to the Dean of Student Activities office in the Student Center.
- M. ASSOCIATED STUDENTS OF GROSSMONT COLLEGE (ASGC) - The Associated Students of Grossmont College (ASGC) supports activities such as clubs, dances, concerts, rallies, speakers, films and other cultural events in addition to providing discounts in local stores, legal and medical services to ASGC members, and a ticket office on campus with tickets to entertainment events throughout the San Diego area. The ASGC offices are located in the Student Activities section of the Student Center and all CVT students are encouraged to support their activities. They in turn provide support for our department through donations of equipment and services. Phone number 644-7604.
- N. CARDIOVASCULAR CLUB - The Cardiovascular Club of Grossmont College is chartered by the ASGC and is organized to promote student interaction, enhance visibility of the program, and conduct fund-raising activities to promote the educational program. Each CVT class elects a slate of officers during the first semester of the program who will provide leadership and coordination of the club's activities.

## VII. STANDARD PHYSICAL REQUIREMENTS FOR CLINICAL TRAINING

The following are the Standard Physical Requirements for working in the clinical environment as a student in the Cardiovascular Technology Program at Grossmont College. These requirements were established as a result of a survey of clinical affiliates that provide training to our students, and should be used as a guide to you and your physician.

- A. Lift While Standing - Light to Moderate - Less than 50 pounds - Frequent
- B. Lift While Sitting - Light - Under 25 pounds - Frequent
- C. Lift With Assistance - Heavy - Over 50 pounds (Patient Transfer, etc.) - Occasionally/Frequently
- D. Pushing - Heavy - Over 50 pounds - Frequent
- E. Pulling - Heavy - Over 50 pounds - Frequent
- F. Reaching (Full Extension - Elbow Flexion) At shoulder level - Occasional/Frequent
- G. Reaching (Full Extension - Elbow Flexion) Above shoulder level - Occasional/Frequent
- H. Standing for extended periods - Frequent
- I. Standing for extended periods with radiation protective device (CVT Invasive Track) - Frequent
- J. Sitting for prolonged periods - Frequent
- K. Walking (Moderate distances within clinical environment) - Frequent
- L. Carrying - Light to Moderate - Less than 50 pounds - Occasional
- M. Bending - Occasional
- N. Stooping - Occasional
- O. Kneeling - Occasional
- P. Turning - Frequent
- Q. Hand Manipulation (Hand controls, simple grasping, power grasping, fine manipulation) - Frequently
- R. Operate Foot Controls - Frequent
- S. Visual Requirements - Ability to observe alarms, indicators and patient physical appearance. Ability to recognize and respond to safety issues.
- T. Auditory Requirements - Ability to hear and understand orders from a physician or supervising technologist. Ability to hear safety alarms and respond appropriately.

## SECTION VIII - CLINICAL FACILITIES/AFFILIATIONS

The Cardiovascular Technology Program at Grossmont College maintains clinical affiliations with the following hospitals/clinics in the San Diego area. Students are responsible for their own transportation to and from clinical sites.

<u>Clinical Site</u>	<u>Miles from College</u>	<u>Clinical Site</u>	<u>Miles from College</u>
ALVARADO COMMUNITY HOSPITAL 6655 Alvarado Road San Diego, CA 92120	3	SAN DIEGO CARDIAC CENTER 8010 Frost Street San Diego, CA 92123	12
DIAGNOSTIC IMAGING SYSTEMS, INC. 7020 Friars Road San Diego, CA 92123	10	SCRIPPS CLINIC & RESEARCH FOUNDATION 10666 North Torey Pines Road La Jolla, CA 92037	25
CHILDREN'S HOSPITAL 8001 Frost Street San Diego, CA 92123	12	SCRIPPS HOSPITAL - CHULA VISTA 435 H. Street Chula Vista, CA 92010	15
KAISER-PERMANENTE MEDICAL CENTER 4647 Zion Avenue San Diego, CA 92120	4	SCRIPPS HOSPITAL - ENCINITAS P.O. Box 230817 Encinitas, CA 92023	30
SCRIPPS - MERCY HOSPITAL & MEDICAL CENTER 4077 Fifth Avenue San Diego, CA 92103	10	SCRIPPS MEMORIAL HOSPITAL 9888 Genesee Avenue La Jolla, CA 92037	22
NAVAL MEDICAL CENTER, SAN DIEGO 34800 Bob Wilson Drive San Diego, CA 92134-5000	15	SHARP CABRILLO HOSPITAL 3475 Kenyon Street San Diego, CA 92110	28
PARADISE VALLEY HOSPITAL 2400 E. 4th Street National City, CA 92050	18	SHARP - GROSSMONT HOSPITAL 5555 Grossmont Center Drive La Mesa, CA 92041	3
PALOMAR MEMORIAL HOSPITAL 559 East Grand Avenue Escondido, CA 92025	33	SHARP MEMORIAL HOSPITAL 7901 Frost Street San Diego, CA 92123	12
POMERADO HOSPITAL 15615 Pomerado Road Poway, CA 92064	25	TRI-CITY MEDICAL CENTER 4002 Vista Way Oceanside, CA 92056	40
		UCSD MEDICAL CENTER, HILLCREST 200 West Arbor San Diego, CA 92103	12
		VETERANS' HOSPITAL 3350 La Jolla Village Drive La Jolla, CA 92037	20



# **APPENDIX 1**

**CARDIOVASCULAR TECHNOLOGY DEPARTMENT  
GROSSMONT COLLEGE**

## **COMPETENCIES FOR GRADUATION**

***CARDIOVASCULAR TECHNOLOGY***  
***GROSSMONT COLLEGE***



**COMPETENCIES FOR**  
**GRADUATION**

**May, 2008**

# Appendix 16

## CVT Program Brochure

## Admission to the Program

To apply for admission to the Cardiovascular Technology Program the following steps must be taken:

1. Schedule an appointment with the Counseling Office, if necessary, to discuss the program or general education requirements.
2. Complete an application for admission to the program and submit to the CVT Office. Applications are available in the Health Professions Office (Room 340B), the Counseling Center or can be downloaded and printed from our web-page. To receive one by mail, call or mail a request to the Cardiovascular Technology Department.
3. Submit official transcripts of any previous high school and college credit directly to the Cardiovascular Technology Department, and a copy of all college transcripts to the Admissions and Records Office.
4. Complete all admission requirements to Grossmont College.
5. Upon acceptance into the CVT Program, the student must submit a satisfactory physical and dental exam and evidence of essential immunizations. Forms are provided by the CVT Office.
6. Prior to entering clinical training at the end of the second semester the student must have a current background check and drug screening, CPR card, lab coat, and current malpractice insurance. Application forms for malpractice insurance are supplied by the program. The cost of the insurance is approximately \$20.00.

## Cost

Grossmont College is a part of the California Community College system and requires an enrollment fee for all students payable at the time of registration. All students are required to pay a health fee. A parking fee will be charged to all students using the parking facilities. A Student Benefit Card is optional. Students are required to purchase their own textbooks and supplies including a lab coat and name tag at an approximate cost of \$1,000.

## Structure of the Program

The Cardiovascular Technology curriculum covers four regular semesters and requires a six-week summer session between the first and second years of study. The first year of the program is composed of on-campus lecture and laboratory classes, offered primarily in the morning and early afternoon. The second year of the program is a series of on-campus lecture and laboratory courses combined with clinical experience in local hospitals. Students must provide their own transportation to the clinical sites. Some late afternoon and evening classes are required. See the Official Class Schedule for detailed information regarding scheduling.

## Accreditation

Grossmont College is accredited by the Western Association of Schools and Colleges, and is a member of the American Association of Community Colleges, the Community College League of California, and the National Commission on Accrediting. Appropriate courses are fully accepted on transfer by the University of California, the California State College system, and by private four-year colleges and universities.

The Cardiovascular Technology Program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Graduates are eligible to sit for national registry exams.

For additional information, contact:

GROSSMONT COLLEGE  
Cardiovascular Technology Department  
8800 Grossmont College Dr.  
El Cajon, CA 92020-1799  
**619-644-7302**

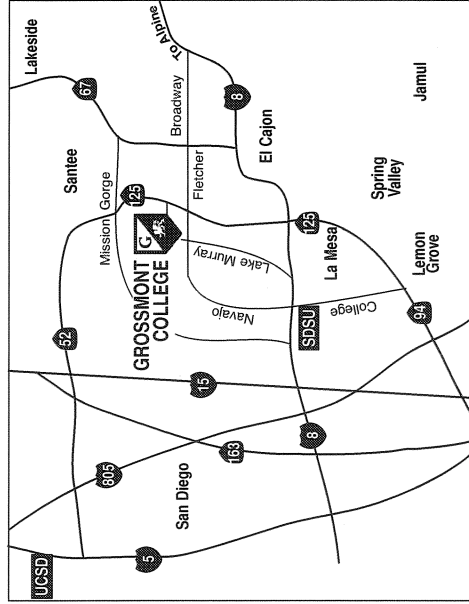
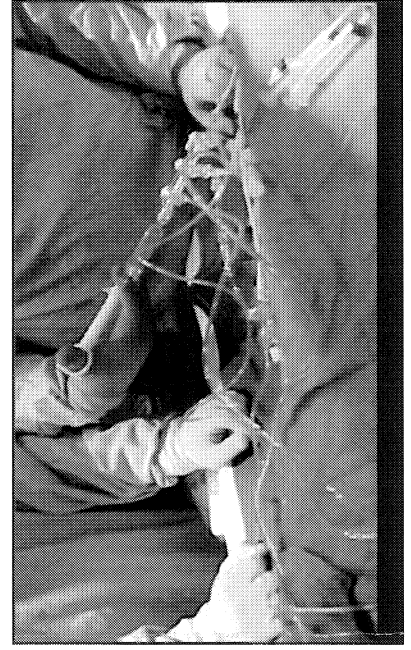
Fax: 619-644-7961 joann.faulise@gcccd.edu  
[http://www.grossmont.edu/cardiovascular\\_technology](http://www.grossmont.edu/cardiovascular_technology)



# Cardiovascular Technology



**Cardiac Ultrasound  
(Echocardiography)  
Diagnostic Vascular  
Ultrasound  
Cardiac  
Catheterization**



GOVERNING BOARD MEMBERS: Rick Alexander, Greg Barr, Timothy L. Caruthers, D.C., Bill Garrett, Deanna Weeks  
Student Members: Crystal Bernier-Sudano, Audrey Causnon  
CHANCELLOR: Omero Suarez, Ph.D.  
PRESIDENT: Sunita V. Cooke, Ph.D.

4/2008

The Grossmont-Cuyamaca Community College District does not discriminate on the basis of race, religion, creed, color, nationality, gender, age, or handicap in admission or access to, treatment of, or employment in, its programs and activities.



## The Cardiovascular Technology Program at Grossmont College

The cardiovascular technologist is the link between the physician and the patient by way of the sophisticated medical instrumentation currently utilized in the diagnosis and treatment of cardiovascular disease.

The Cardiovascular Technology Program at Grossmont College is a two-year course of study leading to an Associate in Science Degree, or Certificate of Achievement as elected by the student. Graduates enter the health care profession as Cardiovascular Technologists.

Students are educated in the theoretical concepts and clinical application of a broad spectrum of courses and techniques, including Cardiovascular Anatomy and Physiology, Physical Principles of Medicine, Medical Instrumentation/Electronics, and Clinical Practicum.

The program begins with a one-year core curriculum of courses followed by one year of concentrated study in one of three specialties within the field.

### 1. Invasive Cardiovascular Technology

Invasive cardiovascular technologists work in cardiac catheterization laboratories, operating rooms and surgical research labs. They assist the cardiologist or cardiac surgeon in performing intracardiac pressure measurements, oximetry determination, cineangi-cardiography, and the measurement and calculation of cardiac function indices. These data are then used by the physician in confirming diagnosis and designing treatment.

### 2. Noninvasive Cardiovascular Technology

Noninvasive cardiovascular technologists perform 2-Dimensional and Doppler echocardiograms, electrocardiograms, exercise stress tests, and ambulatory ECG monitoring. These tests are noninvasive examinations and provide information to the physician on both the anatomic structure and function of the heart.

### 3. Vascular Technology

Vascular technologists use ultrasound and other noninvasive techniques to diagnose disease of the vascular system. Tests include ultrasonic imaging and flow studies of the arteries and veins to detect problems in patients who are at risk for stroke, arterial occlusion, or venous disease.

Cardiovascular Technology is a challenging and rewarding career which demands individual initiative, clinical judgment, and a commitment to ongoing professional growth in the rapidly evolving field of cardiovascular diagnosis and treatment.

## Employment Opportunities

Graduates of the Cardiovascular Technology Program at Grossmont College are actively recruited by hospitals and clinics in the San Diego area and throughout the country. Employment opportunities are excellent and current trends indicate that demand exceeds supply now and for the foreseeable future.

## Prerequisites

1. High school graduation or equivalent.
2. Completion of prerequisite courses or equivalents:
  - a. Chemistry (one year high school or CHEM 115).
  - b. Anatomy and Physiology (BIO 144 and 145, 8 units; or BIO 140 and 141, 8 units) or equivalent.

The above classes must be completed with a grade of "C" or better within the past seven years. At least one prerequisite must be completed prior to submitting an application. All three prerequisites must be completed in order for your name to be placed on the selection list for entry into the Program in the Fall Semester. Acceptance is first-come, first-served based on when your file is complete here in the office.

## Certificate of Achievement

A Certificate of Achievement will be awarded on completion of the core curriculum plus the required units in one area of emphasis, three units of English (110 or 120), and three units of speech (120 or 122 or 125). An official request must be filed with the Admissions and Records Office prior to the deadline as stated in the Academic Calendar.

## Associate in Science Degree

In addition to the courses in the major, additional units in general education (GC) are required for graduation with the Associate in Science Degree. The Counseling Center will assist in identifying these general education courses.

## Course Sequence

All students complete the following courses in the first year of the program:

Courses	Title	Units
CVTE 100	Physical Principles of Medicine I	2
CVTE 101	Cardiovascular Physiology I	4
CVTE 102	Medical Instrumentation I	4
CVTE 103	Laboratory Practicum and Proficiency Testing I	2
CVTE 110	Physical Principles of Medicine II	2
CVTE 111	Cardiovascular Physiology II	4
CVTE 112	Medical Instrumentation II	4
CVTE 113	Laboratory Practicum and Proficiency Testing II	2
CVTE 114	CardioRespiratory Pharmacology	2
CVTE 120	Clinical Practicum I	3
<b>Total</b>		<b>29</b>

## Areas of Emphasis

### Invasive Cardiovascular Technology

Courses	Title	Units
CVTE 202	Diagnostic Procedures I, Invasive Cardiology	4
CVTE 205	Clinical Practicum II	5
CVTE 207	Invasive Medical Instrumentation I	2
CVTE 208	X-Ray Physics and Cardiovascular Angiography	2
CVTE 212	Diagnostic Procedures II, Invasive Cardiology	4
CVTE 215	Clinical Practicum III	5
CVTE 217	Invasive Medical Instrumentation II	2
CVTE 218	Intracardiac Electrophysiology	2
<b>Total</b>	<b>Total Required Plus General Education and Elective Requirements</b>	<b>26</b>

**Total**  
Total Required  
Plus General Education and  
Elective Requirements

### Noninvasive Cardiovascular Technology

Courses	Title	Units
CVTE 200	Medical Instrumentation III	3
CVTE 201	Diagnostic Procedures I, Noninvasive Cardiology	4
CVTE 205	Clinical Practicum II	5
CVTE 210	Medical Instrumentation IV	3
CVTE 211	Diagnostic Procedures II, Noninvasive Cardiology	4
CVTE 215	Clinical Practicum III	5
<b>Total</b>	<b>Total Required Plus General Education and Elective Requirements</b>	<b>24</b>

**Total**  
Total Required  
Plus General Education and  
Elective Requirements

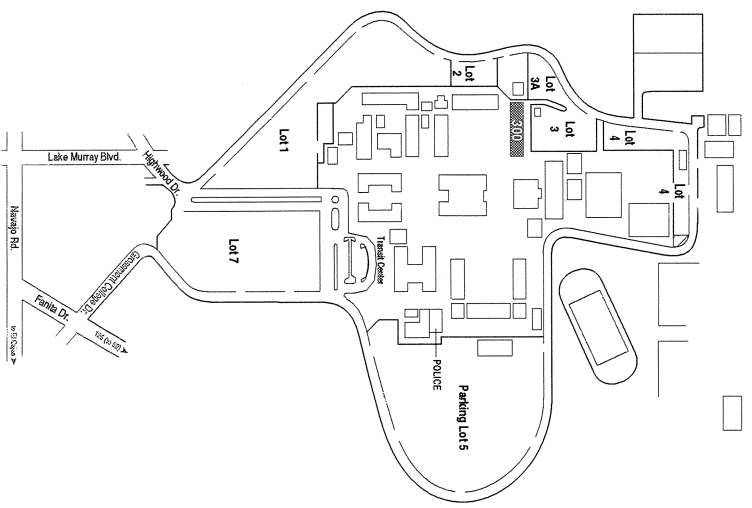
### Vascular Technology

Courses	Title	Units
CVTE 200	Medical Instrumentation III	3
CVTE 203	Diagnostic Procedures I, Vascular Technology	4
CVTE 205	Clinical Practicum II	5
CVTE 210	Medical Instrumentation IV	3
CVTE 213	Diagnostic Procedures II, Vascular Technology	4
CVTE 215	Clinical Practicum III	5
<b>Total</b>	<b>Total Required Plus General Education and Elective Requirements</b>	<b>24</b>

**Total**  
Total Required  
Plus General Education and  
Elective Requirements



# GROSSMONT COLLEGE CAMPUS MAP



For additional information contact  
**Cardiovascular Technology Department**  
 8800 Grossmont College Drive  
 El Cajon, CA 92020  
 Phone 619-644-7302  
 Fax 619-644-7961  
 E-Mail [JoAnn.Faulise@gcccd.net](mailto:JoAnn.Faulise@gcccd.net)

Visit the Cardiovascular Technology website at  
<http://www.grossmont.net/healthprofessions/CVTWebPage>



GROSSMONT COLLEGE  
 8800 Grossmont College Drive, El Cajon, CA 92020-1799 • 619-644-7000 • [www.grossmont.edu](http://www.grossmont.edu) •  
 Governing Board Members: Deanna Weeks, Richard Alexander, Timothy L. Caruthers, D.C.,  
 Bill Garrett, Student Members: Cathy Keyes, Pat Ardilla,  
 Chancellor: Omero Suarez, Ph.D., Grossmont College Interim President: Dean Colli, Ed.D.

# GROSSMONT COLLEGE Cardiovascular Technology



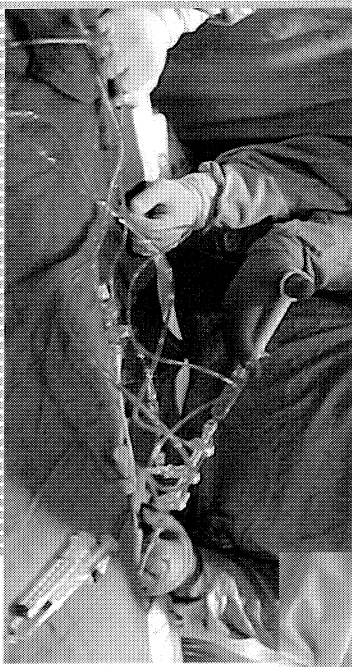
*High School  
 Graduation  
 to High-Tech  
 Medicine*



**Cardiac Ultrasound (Echocardiography)**



**Diagnostic Vascular Ultrasound**



**Cardiac Catheterization**

*Cardiovascular  
 Skills for a  
 Healthy Heart*



# GROSSMONT COLLEGE Cardiovascular Technology

Cardiovascular Technologists participate in the performance of diagnostic tests and procedures in three specialty areas:

- ◆ Cardiac Catheterization which utilizes invasive techniques to produce x-ray pictures of the heart and special devices to open blocked arteries and prevent heart attacks
- ◆ Cardiac Ultrasound (echocardiography) studies; and
- ◆ Diagnostic Vascular Ultrasound both of which utilize non-invasive techniques to produce pictures of the heart and blood vessels.

Cardiovascular Technologists assist physicians from a variety of specialties, such as cardiology, radiology, neurology, and cardiac and vascular surgery. Students participate in lectures and labs on campus as well as in clinical experience in local hospitals. The program is accredited by the Commission on the Accreditation of Allied Health Programs (CAAHEP).

Career opportunities are outstanding, offering excellent salaries and employment opportunities locally and throughout the nation.

Cardiovascular Technology is a challenging and rewarding career, and provides an opportunity to use the latest in diagnostic and therapeutic technology to help patients with cardiovascular disease.

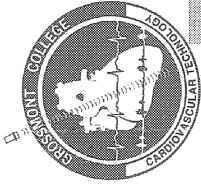
## Structure of the Program

The Cardiovascular Technology curriculum covers four regular semesters and requires a six-week summer session between the first and second years of study. The first year of the program is composed of on-campus lecture and laboratory classes, offered primarily in the morning and early afternoon. The second year of the program is a series of on-campus lecture and laboratory courses combined with clinical experience in local hospitals. Students must provide their own transportation to the clinical sites. Some late afternoon and evening classes are required. See the Grossmont College official Class Schedule for detailed information.

## Cost

Grossmont College is a part of the California Community College System and requires an enrollment fee for all students payable at the time of registration. All students are required to pay a health fee. A parking fee will be charged to all students using the parking facilities. A Student Benefit Card is optional. Students are required to purchase their own textbooks. Supplies, including a lab coat and name tag are required. The total cost of the program for a California resident is approximately \$2,000.

## Articulation Plan for High School Graduate to a Career in Cardiovascular Technology



### Course Sequence

High School Grades 11 & 12	Algebra I Fundamentals of Chemistry (Others)
Grossmont College 1st Semester	CVTE 104 – Electrocardiographic Theory CVTE 105 – Electrocardiographic Technique BIO 144 – Human Anatomy & Physiology I English 110 or 120 (per assessment) Elective GE
Grossmont College 2nd Semester	CVTE 106 – Advanced Arrhythmia Recognition Biology 145 – Human Anatomy & Physiology II Speech 120 – Interpersonal Communication
Grossmont College CVT Program 1st Semester	CVTE 100 – Physical Principles of Medicine, I (Applied Math & Physics) CVTE 101 – Cardiovascular Physiology I CVTE 102 – Medical Instrumentation, I CVTE 103 – Clinical Practicum & Prof. Testing, I
Grossmont College CVT Program 2nd Semester	CVTE 110 – Physical Principles of Medicine II (Applied Math & Physics) CVTE 111 – Cardiovascular Physiology II CVTE 112 – Medical Instrumentation, II CVTE 103 – Clinical Practicum & Proficiency II
Grossmont College CVT Program Summer – Between 1st & 2nd Year	CVTE 114 – Cardiovascular Pharmacology CVTE 120 – Clinical Practicum I
Grossmont College CVT Program 1st Semester, 2nd Year	Specialty Training – Invasive, Noninvasive or Vascular
Grossmont College CVT Program 2nd Semester, 2nd Year	Specialty Training – Invasive, Noninvasive or Vascular GRADUATION – End of Spring Semester

**NOTE:** CVTE 104, 105 and 106 are courses outside the CVT Major. They are designed to produce entry-level ECG Technicians and Telemetry Technicians. Beginning students who complete these courses have an opportunity to work in the field and earn income while attending the two year CVT program.

## **CARDIOVASCULAR TECHNOLOGY PROGRAM REVIEW**

Questions and Responses



**CARDIOVASCULAR TECHNOLOGY  
ACADEMIC PROGRAM REVIEW**

**Spring 2009**

**SECTION 1 – OVERVIEW**

**Department/program history, recent trends, response to last program review recommendations.**

**Concise History**

- 1.1 Introduce the self-study with a brief department/program history. Describe any unique characteristics, concerns or trends affecting the program and any significant changes or needs anticipated in the next three years. These may include items such as increases or decrease in numbers of full-time and adjunct faculty, sections offered, and growth or decline of the department/program. Remember that this is a broad general assessment versus the more detailed responses and recommendations covered in the following emphasis areas (1 page maximum.)**

The Cardiovascular Technology Program was founded in 1972 by Dr. Willard Dellegar. The initial curriculum was composed of a series of courses leading to an Associate Degree in Biomedical Technology which emphasized the repair of specialized medical electronic instruments. While graduates were obtaining employment in that field, feedback from employers and potential employers indicated a greater need for Allied Health Professionals who could assist physicians in the performance of sophisticated medical diagnostic and interventional tests such as cardiac catheterization and angiographic procedures, cardiac ultrasound studies and vascular duplex imaging. Dr. Dellegar enlisted the assistance of local technologists and the Naval Medical Center to revise the program, and over a two-year period the faculty was expanded to include staff from the clinical arena, and the curriculum was revised from a "Biomedical" orientation to a clinically-based, Cardiovascular Technology program.

The current curriculum is composed of a one-year plus one summer session, 29-unit Core Curriculum in mathematics, physics, advanced cardiovascular anatomy, physiology and pathophysiology, medical electronics and instrumentation, cardiovascular pharmacology, and clinical practicum. Prerequisite courses in Chemistry (4 Units) and Human Anatomy and Physiology (8 Units) are required for admission. Following completion of the Core Curriculum, students select one of three specialties in the scope of practice; Invasive Cardiovascular Technology, Noninvasive Cardiovascular Technology, or Vascular Technology. The first year of the program is composed of campus-based lectures and labs. The second year specialty training is composed of on-campus lectures and labs, and clinical experience in local hospitals.

Accreditation for Cardiovascular Technology education was established by the American Medical Association in 1986, and the Grossmont program was the first in the nation to be accredited. Graduates of the program can be found across the country, the Middle East, England, New Zealand and Australia. Most are hired prior to graduation. Hospitals recruit graduates offering salaries in the \$50,000 range, with excellent benefit packages, and sometimes with moving expenses and/or a signing bonus. Our records indicate 100% employment for graduates who want to work.

There is also a need to conduct a needs survey and explore the feasibility of incorporating an additional track into the CVT Program when resources are available. Instruction would be designed to provide certification in the area of Electrophysiology studies, another very specialized component of the scope of practice. Otherwise, the program is stable and no major changes are anticipated in the structure of the curriculum in the near future.

## **Department Program Goals**

### **1.2 Appendix 1 contains the most recent Educational Master Plan for the department/program. Make comments on the following:**

- **Which goals have been met?** Goal 1 (Recruit faculty) and Goal 2 (provide tutoring) have been met. Goals 3 (SLO's), Goal 4 (Assist ROP with Anesthesia Monitoring courses) and Goal 5 (Curriculum Review) have been addressed and all are on-going.
- **What actions have been taken in achieving these goals and objectives?** Two new full time faculty members have been recruited and hired and basic and advanced tutors have been recruited, trained and hired (Goals 1&2). Student learning outcomes have been identified for all courses in fall semester, first and second year levels, and methods of assessment have been standardized and will be published in student syllabi beginning in Fall 2009 (Goal 3). A series of 299 courses have been developed, adjunct faculty hired, and the first group of students entered the workplace as Anesthesia Monitoring Technicians at the end of summer 2007 (Goal 4). Curriculum review is an ongoing process for the department based on changes in the scope of practice and recommendations from the Joint Review Committee on CVT Education (JRC-CVT) and the program Advisory Committee (Goal 5).
- **What obstacles have been encountered?** The college policy of filling classes with adjunct instructors for one year prior to authorization to replace full time faculty was very disruptive to our curriculum and the stability of the program. Adjunct instructors are difficult to recruit and hire for the wages paid by our district. We were without a stable faculty for approximately 3 years until the Fall 08 semester.
- Full time instructors are even more difficult to recruit and hire for the wages paid by the district. Nation-wide searches have been conducted with little success, and when 2 qualified candidates were identified and offered positions, both refused the offer when they were informed of the salary to be paid. This situation has been somewhat temporarily alleviated by obtaining a grant from the Grossmont Healthcare District which was used to recruit and retain qualified instructors. The current coordinator retired at the end of Spring 2006 but has returned on a part-time basis until a new coordinator can be identified and trained to assume that responsibility.
- **How have these goals changed and why?** They have not changed.

### **1.2 Appendix 2 contains the most recent Program Review Committee recommendations for the department/program. Describe changes that have been made in the department/program in response to recommendations from the last review.**

**Here are the four recommendations and the response to each:**

**Recommendation #1 - Continue to work to develop a viable GE package that better meets the needs of your students.** *Response:* A GE package modeled on the Nursing and Respiratory Therapy programs was developed and approved by the Curriculum Committee in September, 2002.

**Recommendation #2 – With other health sciences, utilize campus and district resources for marketing and public awareness of the program in the community.** *Response:* The program is currently impacted and there is a waiting list of approximately two years. It appears that the community is aware of the existence of the program and the potential benefits associated with a career in Cardiovascular Technology.

**Recommendation #3 – Advance the planning process for the new and remodeled health science building.** *Response:* The department has been involved in all stages of the process for planning the new building. Both the coordinator, Rick Kirby and one full time faculty member, Don Ridgway, currently serve on that taskforce.

**Recommendation #4 – Seek general fund support for the tutoring program.** *Response:* The tutoring budget in the general fund and the Perkins VETA fund were both increased shortly after our last program review and are considered adequate for current enrollments.

#### **Advisory committee Recommendation**

**Some disciplines such as ESL and vocational program are required to have advisory committees. Answer this question if this is application to your department/program.**

The CVT Advisory Committee is composed of 2 physician medical directors, 6 physician specialists in cardiovascular medicine, 7 senior technologist/department managers from local hospitals, the CVT faculty, the Division Dean, and the Presidents of both the 1<sup>st</sup> and 2<sup>nd</sup> year classes. The committee meets annually in May to receive a report on the status of the program, review the program syllabus and recommend revisions to the curriculum.

**1.4 If appropriate, summarize the principal recommendations of the program advisory committee since the last program review. Describe how the department/program has responded to these recommendations. Include the date of the last meeting and frequency of meetings. List organizations represented.**

Recommendations from the committee have centered on maintaining the curriculum to the scope of practice and adequate staffing levels. Specific recommendations have been:

May 2007 – The curriculum was reviewed and found to be appropriate to the scope of practice. There was one recommendation from Drs. Otis and Ceretto that instruction on the evaluation of intimal-medial thickness be added to the Vascular Track curriculum. This topic was added to the course in Spring 2008.

May 2006 – The curriculum was reviewed and found to be appropriate to the scope of practice. There was discussion as to possible implications of a combination of diagnostic cardiology labs and interventional radiology sharing the scope of practice. There were no specific recommendations from the committees as to possible impact on the CVT curriculum or competencies.

May 2005 – The committee approved a proposal from the faculty to implement a pilot project to require students in the Invasive Track to sit for the national registry exam during finals week of their graduating

semester. The project was implemented and carried out for 2 years and then changed from a “requirement” to a recommendation. This action was due to inconsistencies in the faculty teaching the courses.

May 2004 – The committee approved the addition of the requirement that students enrolled in the Invasive Track be required to complete Advanced Cardiac Life Support (ACLS) as part of their course work. There was also discussion as to the implications of the pending retirement of Jerome Passman and the challenges to be faced associated with the hiring practices currently in force at the college/district.

May 2003 – There was discussion as to the allocation of specific amounts of time devoted to medical electronics and instrumentation, noninvasive techniques and increased emphasis on abdominal Doppler techniques. There were no specific recommendations from the committee.

#### **Local representation includes:**

William J. Ceretto, M.D. – Cardiologist (Co-Medical Director)

Shirley M. Otis, M.D. – Department Chair and Senior Consultant, Neurology Division and Director, Vascular Diagnostics Laboratory, Scripps Green Hospital (Co-Medical Director)

Howard Dittrich, M.D. – Chief Medical Officer, Sequel Pharmaceuticals and Clinical Professor of Medicine, UCSD Medical Center

Mary Kalafut, M.D. – Neurologist, Scripps Green Hospital

Vincent Guzzetta, M.D. Vascular Surgeon

James Mathewson, M.D., Pediatric Cardiologist, Children’s Hospital

Michael Botha, RCIS, Manager, Cardiac Catheterization Laboratory, Scripps Chula Vista

Dan Miller, RCIS, Manager, Cardiology Services, Scripps Mercy Hospital

Colin Ramsey, RCIS, Manager, Cardiology Services, Sharp Grossmont Hospital

Marylou Upton, RCS, Manager, San Diego Cardiac Center

James Phan, RCIS, RVT, RCS, MA, Management Team, Scripps Mercy Hospital

Raymond Schwend, RVT, Senior Technologist, Vascular Laboratory, Scripps Green Hospital

## **SECTION 2 – CURRICULUM, ACADEMIC STANDARDS, AND SUPPORT SERVICES**

**In Appendix 3, Catalog Descriptions, insert copies of your catalog descriptions from the most recent college catalog (see “Course of Instruction” section). If your program has an Associate Degree program, include the relevant pages for the catalog (see “Associate Degree” section).**

Complete – Please see Appendix 3

**To complete Appendix 4 Course Status, review your course outlines and complete the form in the appendix to reflect currency of the courses, offerings, and alignment status. The table is complete. Please see Appendix 4.**

**2.1 Review all course outlines and comment on where your department/program is in the process of maintaining currency. Verify that the course outline reflect the writing, reading, and problem-solving skills, quantitative reasoning, and critical thinking across the department/program’s curriculum.**

- Course Currency – CVTE 107, 120, 201, and 211 are due for review and updating. CVTE 201 and 211 have been reviewed in Fall 2007 and submitted to the Instructional Operations Office for action by the Curriculum Committee. The other courses will be submitted for review in the next academic year.

- All courses have been approved by the curriculum committee and reflect the required writing, reading and problem-solving skills, quantitative reasoning, and critical thinking across the CVT curriculum.

## 2.2 Describe how your department makes decisions related to the following:

a) **Identification of student learning outcomes** – Primary direction for student learning outcomes is provided by the “*Guidelines and Essentials of an Accredited CVT Program*” published by the Joint Review Committee on CVT Education. Additional guidance is provided by the CVT Advisory Committee and our clinical affiliates. A collaborative process among all full time members of the faculty is used to refine the input from these sources and then translate them into the curriculum. Curriculum issues are addressed in part via a biweekly CVT faculty meeting and department meetings which include adjunct faculty during Professional Development Week each semester.

### b) **Methods to demonstrate achievement of these learning outcomes.**

Assessment of learning outcomes is evaluated via a combination of written examinations, oral examinations, writing assignments, clinical performance tests, graduate success rates on national registry exams, and graduate placement.

#### **How do you use this information for course and program improvement?**

The information is used to identify areas of the curriculum in the scope of practice that require review and revision as appropriate.

## 2.3 Explain how the department/program maintains academic standards, integrity and consistency to assure that current curriculum adequately meets students’ needs (e.g., general education, prerequisites, job-specific training, transfer). Explain how the department/program ensures that all instructors teach to the official course outline.

a. **Academic Standards** - The courses in the CVT major contain highly technical content dealing with diagnostic and interventional cardiovascular medicine. Graduates of the program work with critically ill patients and there is little room for error in their care. The program requires all courses with the exception of two, to be completed with a minimum of 75% average. The two exceptions are clinical practicum courses and require an 85% average for a passing grade.

b. **Academic Integrity** – All CVT syllabi distributed to the students on the first day of class contain the following statement:

***Academic Integrity.*** *The Cardiovascular Technology profession demands the highest moral and clinical standards. Cheating will not be tolerated in the Program just as it will not be tolerated in clinical practice. The official Grossmont College policy on cheating is detailed in the Student Code of Conduct, which is available in the office of the Director of Student Affairs. In accordance with this policy, the CVT Department defines cheating as any one of the following:*

- *Talking to another student during an exam*
- *Copying (or attempting to copy) answers from another student’s paper during exams or Quizzes*
- *Plagiarism in connection with any academic process including submitting tracings, measurements/calculations, or reports which were prepared by anyone other than yourself*
- *Soliciting or assisting another student to any act which would violate this policy*
- *Duplicating any copyrighted material for any reason*

*Instructors have the authority to suspend any student suspected of cheating for the class meeting in which the incident occurs and one additional class meeting. Following a review of the incident, the college policy on student conduct prevails and the student may be denied future access to the Program. Refer to the Student Code of Conduct for additional information on this policy.*

This information is also published in the *CVT Student Information Booklet*. The policy is strictly enforced. In the past 2 years, 2 students have been expelled from the program and the college for committing plagiarism.

Consistency – The program began in 1972 and over the years the curriculum has been refined to insure the appropriateness of the prerequisite courses in preparing students to work at the required level of rigor they encounter in the program. The General Education requirement has been evaluated and modified as appropriate as indicated previously.

The curriculum is totally integrated, and theoretical concepts are often presented as part of one class and then clinical application accomplished in a different class (or lab). If an instructor does not teach to the official course outline, it quickly becomes evident to other members of the staff and corrections are made as appropriate. The issue is documented in the instructor's evaluation and if an adjunct instructor, they may not be assigned classes in the future OR in the case of a full time, non-tenured faculty member, this could be grounds to cease the tenure process and refuse to rehire. In either case, college policy is strictly adhered to. The CVT faculty historically has worked generally well to ensure continuity of the curriculum.

**2.4 Using Appendix 5, Grade Distribution Summary Report, comment on retention and grading variability figures. Discuss any specific courses that have unusual retention patterns or grading variances.**

Retention – Retention has been consistent in the program since the last program review. First year classes average 10-12% with a slight rise to 13% in Spring 2007. Second year class attrition averages 2-3%.

Grade Distribution – Analysis of the data provided indicates little change in grading patterns over the past 5 years. It should be noted that students accepted into the program average 27 years in age, have completed 12 units of course work in the sciences as prerequisites and are highly motivated to do well. The program does not issue "D" grades and there are few "C's". CVTE 205 and CVTE 215 are clinical practicum courses based in local hospitals and are essentially pass/fail. Grades are derived from student clinical log sheets and assigned clinical case reports.

**2.5 Describe strategies employed to ensure consistency in grading in multiple section courses (e.g., mastery level assessment, writing rubrics, departmental determination of core areas which must be taught).**

Multiple section courses in the department are clinical lab courses and use multiple measures to assess student competency. Paper and pencil tests, reading assignments, a comprehensive final examination, graded lab exercises, and clinical performance tests are examples. Course content is guided by the *Guidelines and Essentials* published by the accrediting agency (The JRC- CVT), the CVT Advisory Committee, and our clinical affiliates. Standardized grading sheets have been

developed by the faculty. In most cases the sheets are distributed to the students two weeks or more before the performance exams are conducted so that they are informed of exactly what the instructor will be grading and the points available for each section. Grading variance between instructors has not been an issue to date. Since the full-time CVT faculty is fairly small (four instructors), integration and consistency have been relatively easy to maintain.

**2.6 Describe how your department/program encourages students to extend learning outside of the formal classroom.**

- a. A 30-station computer center with state-of-the-art machines connected to the Internet is available for students to use in study, research and technical writing assignments.
- b. Attendance at local and regional seminars and conferences on cardiovascular medicine.
- c. Assignment to clinical experience in local hospitals which provides availability to a patient population with cardiovascular disease and millions of dollars in state-of-the-art medical diagnostic instrumentation not available on campus.
- d. Open lab times with trained tutors available to assist in the acquisition and refinement of clinical skills in diagnostic testing.
- e. An array of technical journals available in the LRC.

**2.7 Describe and give rationale for any new courses or programs you are developing or have developed since the last program review. How have current issues (environmental, societal, ethical, political, technological) been reflected in your curriculum.**

The program has participated in the development of courses designed to teach the principles of Anesthesia Technology. The courses were developed in response to a community request from area hospitals; they were unable to recruit and hire trained Anesthesia Technicians to work in their operating rooms. The program is being developed in conjunction with the ROP Office and the CVT coordinator assisted in the development of the initial 299 courses, interviewing and hiring faculty, and instructor evaluation. Ten courses have been developed, four instructors have been recruited and hired and the official course outlines were scheduled to go before the Curriculum Committee in Fall 08. These courses do not contain environmental, societal, ethical or political subject matter but are highly technical in scope.

**2.8 In Appendix 4, Course Status, list the courses in the department/program that are duplicated at Cuyamaca College and identify their alignment status. Comment on courses which have not been aligned and describe the plans for alignment.**

None. There are no CVT courses taught at Cuyamaca College at present. Grossmont has the only CVTE Program in the San Diego area and is one of only two accredited programs in the State of California.

**Innovation/Special Projects/Community Involvement**

**2.9 Describe instructional innovations and/or special projects undertaken by the department/program or individual faculty members, including the use of technology.**

Don Ridgway has authored a nationally-acclaimed textbook on Vascular Technology. *Introduction to Vascular Scanning*, from Davies Publications, is now in revision for the 4<sup>th</sup> edition. His textbook on vascular anatomy and physiology is due out later in the spring of 2009. Don has also published *Vascular Technology Review*, a collection of approximately 600 questions which is used as a tool for

preparation for the national vascular registry examination (also available in CD-ROM format to simulate the exam environment). He is also the Associate Editor of *Vascular Physics Review*, a similar review book for the ARDMS physics exam, and has another textbook on vascular anatomy and physiology nearing completion.

There are two online courses in the department. Both are structured to provide a comprehensive review prior to taking national registry exams.

Another innovation/special project undertaken by the department is the Anesthesia Technician program previously described.

**2.10 With the interest and needs of the community in mind, describe any outreach or community activities initiated by the department/program.**

The program coordinator holds a one-hour weekly orientation meeting each Tuesday at 9:00 AM. The meeting is open to members of the public and/or students in other courses at the college and provides a detailed overview of the Cardiovascular Technology profession and a tour of the CVT Laboratory.

The program participates in the Career Fair each fall semester and the Health Fair each spring semester.

Don Ridgway and the students enrolled in the Vascular Track of the program conduct a cardiovascular screening test for members of Club 65, a senior services group at Sharp Grossmont Hospital. Seventy-one patients were screened for evidence of lower-extremity disease in November 2007. Three patients were identified to have evidence of disease and were referred to their physicians for early intervention. Screenings for carotid artery disease and abdominal aortic aneurysm are held at Grossmont Hospital's cardiology department in the spring.

**2.11 Provide specific examples of departmental or individual efforts aimed at encouraging students to become actively engaged in the learning process.**

Students are required to work in a group of their peers (typically 4 students) as they acquire and refine their diagnostic skills such as blood pressure measurement, segmental pressure determination, electrical circuit analysis, echocardiography, aseptic technique and duplex ultrasound studies. The students are fully engaged in the instructional process and support/oversight is provided by a combination of CVT faculty and second year students.

**2.12 Explain the department/program's relationship to others on campus (e.g., fulfill prerequisites for other general education programs, cross-listing, interdisciplinary course offerings, learning communities.)**

The program relies on other departments on campus to provide prerequisite and general education courses. Special reliance is placed on the Chemistry and Biology departments and cooperation has been excellent in the past. There are no cross-listed interdisciplinary course offerings in the department.

**Campus Resources**



**2.13 Indicate what the department/program has done to formalize links with the following college support services:**

- **Learning Assistance Centers (Biology Learning Center, English Writing and Reading Centers, Math Study Center, Tutoring Center)** The only referral used routinely from CVT is the English Writing and Reading center when language deficiencies in our students are detected.
- **Technology Mall** – The department occasionally reserves a room to conduct online exams or projects.
- **Instructional Media (upstairs in the Library Technology Resource Center)** The department maintains an extensive collection of audiovisual material in Room 329A so little interaction occurs with IM Services.
- **Others** – n/a

**2.14 Evaluate and provide a summary of the current status of library resources related to the department/program. Use the subject-specialist librarian assigned to your department/program to assist in the evaluation. Consider books, periodicals and online resources.**

The following journals are available in the LRC and are considered adequate to the scope of practice and current enrollments.

<b>PUBLICATION</b>	<b>AVAILABILITY</b>
Circulation	1990 - Date
Index Medicus	1976 - Date
Journal of CV Surgery	1991 - Date
Journal of Invasive Cardiology	1989 - Date
Journal of the American Society of Echocardiography	1989 - Date
Journal of Ultrasound in Medicine	1990 - Date
Journal of Vascular Technology	1989 - Date

There is also a wide array of textbooks on Cardiovascular Disease. It has been noted that use of the materials in the LRC by our students has decreased in recent years since the majority rely heavily on the Internet for learning outside the classroom.

**2.15 Describe the working relationship between the department/program and the Counseling Department in terms of exchanging specific and current information about your department/program that counselors can use to help students develop education plans and make career decisions.**

The program coordinator attends the Counseling Center Staff meeting annually in March and in some cases during Spring and Fall semesters in order to provide an overview of the program, demand for graduates and request assistance in identifying students interested in technical careers in Allied Health. The department also reviews and updates the Planning Sheet on an annual basis which is used by the counseling staff when advising students as to courses required to enter and complete the program and Associate Degree.

**2.16 Comment on the results of the student survey, Appendix 6, regarding campus resources.**

**Assessment & Testing Center** – 81.6% of CVT students report that they rarely or never use this service. Of those who do, it is likely those who take assessment tests in Mathematics in order to enroll in the Chemistry prerequisite course for CVT or English to determine which course to take for the AS Degree or certificate.

**Career Center** – 98.5% of CVT students report that they rarely or never use this service. It should be noted that students entering the CVT Program have already selected the profession as a career path and completed 12 units of prerequisite course work. The program maintains an extensive listing of jobs available upon graduation. The Career Center has been supportive of the program in providing an outstanding workshop on resume preparation which was presented to the Classes of 2006, 2007 and 2008 by Nancy Davis.

**Counseling Office** – 97.1% of CVT students report that they rarely or never use this service. Students are encouraged early in the first year of the program to schedule an appointment with counseling in order to determine eligibility for their Certificate of Achievement or the Associate Degree.

**English Writing Center** – 95.4% of CVT students report that they rarely or never use this service.

**English Reading Center** – 98.4% of CVT students report that they rarely or never use this service.

**Health Services** – 96.0% of CVT students report that they rarely or never use this service. However, many of our students have used this service in the past to obtain physical examinations and immunizations prior to entering the program or being assigned to clinical practicum in local hospitals. Additionally, the program encourages second-year students to obtain flu shots, which is desirable in health-care workers. (Flu shots are likely to become mandatory for health sciences students in clinical sites in the near future.)

**LRC: Computer Lab (SETL)** – 52.1 % of our students report that they rarely or never use this service. The remaining students fall into the other two categories; often, 2-5 times/week (19.7%) or rarely (28.2%). It should be noted that CVT students have access to the Health Professions Computer Center, Room 352A which is located in the building 35 adjacent to the CVT Lab and provides access to the Internet in addition to a wide array of online learning resources.

**LRC: Instructional Media** – 16.9% of CVT students report that they sometimes use the video carrels in the LRC. They are likely used for study sessions in preparation for exams.

**LRC: Main Library** – 41.4% of CVT students report using the main library. As noted earlier the Internet has become the primary tool for research used by our students.

**Math Study Center** – 96.9% of CVT students report that they rarely or never use this service. Tutoring in mathematics and physics is provided by the CVT faculty as required.

**Student Affairs Office** – 93.6% of CVT students report that they rarely or never use this service.

**Tutoring Center** – 95.4% of CVT students report that they rarely or never use this service. Tutoring in CVT topics is not available in the Tutoring Center so this service is provided by a combination of 2<sup>nd</sup> year students and the CVT faculty.

**2.17 List courses that have been formally articulated with the high schools. Describe any articulation and/or collaboration efforts with K-12 schools.**

None of the CVT courses have been formally articulated with area high schools. A brochure is available which describes a pathway for a high school student to follow for entry into the CVT profession. It outlines the prerequisite courses, suggests high school courses for completion in the sciences and then gives an overview of the major courses. The brochure is distributed at career fairs and when high school students visit the campus and the CVT laboratories. A copy of the brochure is included at the end of this booklet.

**2.18 After reviewing ASSIST.org and the Grossmont College articulation website, please identify if there are any areas of concern or additional needs your department has about articulation with four-year institutions. Please describe how the department/program ensures that articulations with key four-year universities are current.**

The program is not officially articulated to any four-year institutions. The program provides competency in entry-level positions as Cardiovascular Technologists. Graduates who continue their education typically pursue degrees in related areas such as advanced physiology, computer science, education, administration, allied health care management, and research methodology. There is a program at National University that accepts our graduates at an advanced level should the students decide to pursue a degree in Medical Administration/Management.

### **SECTION 3 – STUDENT ACCESS AND SUCCESS**

**3.1 In addition to the innovations listed in 2.11, describe specific ways the department/program has adjusted or developed curriculum to foster student success (e.g., addition of pre-collegiate introduction courses, bridge courses, variable unit courses, on-line courses, honors courses, web enhanced learning).**

None other than those listed in detail in 2.11.

**3.2 Analyze Appendix 7, Statistical Data: Outcomes Profile, and comment on strategies utilized to address the needs of the various cohort groups. Provide specific strategies that have been used to meet the different needs of your students (e.g. re-entry, academically under prepared, working, disabled, limited English.)**

Students who enter the program have completed 4 Units of Chemistry and 8 Units of Human Anatomy and Physiology. The Chemistry course has a math prerequisite. The students are generally mature, (average age =27 years) highly motivated and accustomed to working at the level of rigor required in the CVT Curriculum. Some have Bachelor's and/or Master's Degrees and most classes have 1 – 2 foreign-trained physicians.

Students comment that the most helpful strategy to promote success is the provision of 2<sup>nd</sup> year students to serve as tutors to 1<sup>st</sup> year and especially in the labs where they acquire and refine their skills in performing specialized diagnostic medical tests.

In some cases students who struggle with the English language have been referred to the ESL department for assistance.

**3.3 If state of federal licensing/registration examinations govern the program, please comment on student success.**

Graduates sit for national registry exams administered by Cardiovascular Credentialing International, (CCI) for Invasive, Noninvasive and Vascular Technology, or the American Registry of Diagnostic Medical Sonography (ARDMS) for Noninvasive and Vascular Technology only. Graduates who pass the national registry typically have greater access to jobs and begin work at a higher level on the salary schedule.

Passing the national registry exam is not a requirement to enter clinical practice, so the numbers of students taking the exam each year varies. The exam is costly and rigorous, and some excellent students opt not to take the exam despite advice and encouragement from the faculty to do so. There is currently a national movement to accredit clinical labs (the same as educational programs) to ensure quality of practice; this will likely lead to mandatory registry or licensure of the profession in the future. For years prior to 2006, CCI did not report the national average for the Invasive registry so that data is not available.

The table below demonstrates graduate performance over the past three years and shows that Grossmont graduates generally exceed the national average pass rate.

YEAR	SPECIALTY	GRADUATES	TOOK EXAM	PASSED EXAM	GROSSMONT AVERAGE	NATIONAL AVERAGE
2006	Invasive CVT	18	18	12	66.7%	69.2%
2006	Adult Echo	16	10	10	100.0%	72.8%
2006	CV Physics	16	12	11	92.6%	56.0%
2006	Vascular Physics	10	1	0	0	60.3%
2006	Vascular Technology	10	1	0	0	56.7%
2005	Invasive CVT	17	17	8	47.1%	Not reported
2005	Adult Echo	16	11	10	90.9%	55.7%
2005	CV Physics	16	13	8	61.5%	53.5%
2005	Vascular Physics	12	12	10	83.3%	64.4%
2005	Vascular Technology	12	5	4	80.0%	57.0%
2004	Invasive CVT	16	1	0	0	Unknown
2004	Adult Echo	18	6	6	100%	61.2%
2004	CV Physics	18	8	7	87.5 %	55.1%
2004	Vascular Physics	10	8	2	25.0%	56.5%
2004	Vascular Technology	10	7	7	100%	86.2%

**3.4 Discuss strategies and/or activities that have been, can be, or will be used to promote/publicize the courses/department/program. Include activities your faculty have implemented to provide closer connections to primary, secondary and post secondary schools. Consider campus/district resources that have been useful. Using the Student Survey, comment on how students learned of this program.**

The department uses a color brochure, an entry in the *Class Schedule* each semester, and weekly orientation meetings to publicize and promote the program. The orientation meetings are held in the CVT Office and include a tour of the lab and overview of some of the equipment used in diagnostic cardiovascular technology. Analysis of the Student Survey reveals the following as to how students learn about the availability of the program:

N = 92 Students surveyed

Note: *Since students are able to select more than one option the total exceeds 100%.*

Friend & Family member	58.3%
Grossmont Webpage	30.6%
Work referral	13.9%
Grossmont Catalog	12.5%
Grossmont Counselor	9.7%
Grossmont Instructor	6.9%
Cuyamaca College Presentation	2.8%
Public Media	2.8%

**3.5 Referring to *Appendix 7, Statistical Data, Outcomes Profiles, Appendix 8, Efficiency Report, and Appendix 5, Grade Distribution Summary Report, comment on emerging trends of course completion, success, retention, and enrollments.***

**Course Completion** – Course completion rates average 94.1 percent and have been stable over the reporting period.

**Success** – Overall success rate for CVT students reported for gender, age and ethnicity is 91.7% and has been stable over the period reported.

**Retention** – The retention rate for CVT students when reported for gender, age and ethnicity is 94.1% and has been stable over the period reported.

**Enrollments** – Enrollments have remained stable since the program accepts the same number of students each year (54 Students) based on available lab stations, faculty, equipment and clinical sites available in San Diego County.

**3.6 Referring to *Appendix 9 if the department/program offers a major or certificate in the college catalog, comment on the trends regarding number of students who earn these degrees and/or certificates.***

The number of degrees and certificates awarded each year has remained relatively consistent over the past 5 years. Degrees awarded averages 27 and certificates average 39. It should be noted that students who satisfy the requirements for the degree automatically are qualified to receive the certificate and most apply for both.

#### **SECTION 4 – DEVELOPMENT OF HUMAN RESOURCES**

**In Appendix 10, complete Conference, Workshops, Staff Development and Sabbaticals forms.**

**4.1 Describe how participation in activities listed in *Appendix 10* have resulted in improvement in curriculum and instruction.**

Attendance at local, regional and national workshops, conferences and symposia is critical to maintaining the curriculum current to the scope of practice. These meetings feature national and international speakers who present the findings of their research; clinical cases reports and in some cases live demonstrations of new methods used in the diagnosis and treatment of cardiovascular disease. The information is then translated into the curriculum as appropriate.

#### **4.2 Forecast your staff development needs both within and outside of the institution.**

Within the Institution – Continued support as student learning outcomes are developed and incorporated into the curriculum. Campus support for instructors to incorporate online/hybrid classes into the CVT Curriculum.

Outside the Institution – Continued support to fund registration, travel and accommodations for at least two instructors to attend national meetings each year on a rotating basis.

#### **4.3 Describe how the members of the department/program are helping to shape the direction of the college (e.g., writing grants, serving on college/district committees, task forces, Academic representation, etc.).**

Don Ridgway serves on the Health Professions Building Taskforce and the Academic Senate. Rick Kirby serves on as a member of the Academic Senate, Council of Chairs and the Division Council of Career/Technical Education and Workforce Development. He is also a member of the building taskforce and the Grossmont Health Care District building taskforce.

The other 3 full time, CVT faculty members are on tenure track and are not encouraged to volunteer for committees until the 3<sup>rd</sup> year of the process. They are instead encouraged to concentrate on teaching strategies, classroom management, student clinical placement, and student assessment methods.

#### **4.4 Describe how the members of the department/program contribute to the community beyond the college, locally, statewide, and nationally.**

Don Ridgway – Author of 2 textbooks which are used nationally, associate editor and contributor to a third book and a 4<sup>th</sup> book to be published in Spring 2008. Don also provides leadership for his students in the Vascular Track of the program to conduct annual vascular screening exams for members of “CLUB 65,” a senior citizen’s group associated with Sharp Grossmont Hospital.

#### **4.5 Describe how decisions are made in your department/program.**

Through a collegial process which typically begins with discussion at a faculty meeting or during professional development week. In so far as possible and where applicable, all decisions are measured against the program Mission Statement, *“Academic Excellence through student-centered learning in a creative, supportive environment.”*

#### **4.6 Describe how computer resources, such as the Internet, department and faculty web pages, and emails are used by faculty in the department/program.**

The Internet is used extensively by the faculty to research the medical literature in course preparation, teaching materials acquisition and assignments for students. The department web page is used by perspective students to learn about the structure and policies of the department and to communicate with the program coordinator and the faculty. Email is widely used throughout the department.

#### **4.7 If your department/program has hiring equivalencies, explain the rationale and comment on alignment with Cuyamaca. Please list equivalencies in *Appendix 11*.**



The hiring equivalencies used by the department are modeled after those required by State Chancellor's Office and incorporate the recommendations of the *Guidelines & Essentials* published by the Joint Review Committee on CVT Education. The *Guidelines & Essentials* require that teachers in an accredited program demonstrate competency in the scope of practice by passing a national registry exam administered by Cardiovascular Credentialing International (CCI) or the American Registry of Diagnostic Medical Sonographers (ARDMS). The minimum qualifications and equivalencies are included in Appendix 11.

**4.8 List and describe the duties of classified staff, work study and student workers who are directly responsible to the department/program.**

JoAnn Faulise was the Health Professions Student Specialist for many years and provided administrative support to the CVT Program, the Orthopedic Technology Program and the Speech Language Pathology Program. Her duties were myriad and included:

- Providing secretarial support to three program coordinators
- Routine clerical duties (answering phones, typing, preparing correspondence, maintaining student files, maintaining clinical logs, mailing, processing and filing student assessment reports, preparing state and national reports, preparing accreditation documents)
- Providing information about the programs to the public by a variety of means (mailing brochures, answering telephone questions, greeting and answering questions for walk-ins, responding to email messages, preparing materials for presentations to students and the public)
- Development and maintenance of the Web pages for the 3 programs
- Accept and review student applications, transcripts and other information to determine compliance with program prerequisites.
- Accept and review student physical and dental forms to assure program compliance and verify that CPR, Tbc, Drug Screening and Criminal Background Checks and Malpractice Insurance compliance requirements are met and on file prior to student assignment to clinical practicum.

JoAnn passed away in November 2008 following a protracted illness, and her position is currently filled by Leslie Lacher who is a temporary employee. The position will be filled on a permanent basis when college resources permit.

The department also shares with the other Health Professions Programs in the support provided by two Health Professions Laboratory Technicians, Pat Murray and Dan Lopez. The technicians provide services which include:

- Preparing labs and equipment
- Providing instructional equipment such as projectors, computers, sound amplification equipment
- Training and supervising work-study students in the performance of their duties
- Performing routine maintenance on equipment
- Providing inventory control, ordering and stocking consumable supplies

The department also hires 2<sup>nd</sup> year students to serve as tutors to 1<sup>st</sup> year students in the acquisition and refinement of basic clinical skills and to work in the Health Professions Computer Center. The number of tutors employed varies semester-to-semester. There are currently 16 students employed.

- 4.9 Discuss your staffing factors that influence the effectiveness of the program. Does your department/program need to decrease, maintain, or increase the number of full-time faculty? Support your response with enrollment trends, future outlook for your department/program and any information related to changes in the economy, business or human services needs. Include discussion of part-time vs. full-time ratios and dependence on overloads.**

The optimal number of students for enrollment in the program each year is 54. This number is determined by the number of hospitals/clinical sites available in the San Diego area for clinical experience in the second year of the program and considers an attrition of approximately 10-12% in the first semester. Current staffing levels of 4 full time and 7 part time instructors are considered adequate for the instructional program at current enrollments.

Coordination of the program is a full time job but is routinely filled by a full time faculty member who also teaches classes in accordance with college policy. The CVT Coordinator is also responsible for coordinator support for the Telemetry Tech, Ortho Tech and Anesthesia Tech programs. While an increase in full time or part time faculty is not needed at this time, a full time position for the CVT Coordinator would be optimum for the overall effectiveness of the programs.

## **SECTION 5 – SCHEDULING EFFECTIVENESS AND ROOM UTILIZATION**

Refer to Appendix 7 for efficiency. Enrollment will come from Data on Demand; Appendix 5 has the sections and class sizes. Appendix 12 shows % of max.

- 5.1 Using Appendices 7 and 8, comment on student success figures since the last program review. How does this compare to the campus-wide figures?**

### Percent Student Success

- a. Gender – Overall success rate by gender over the past six years had a range of 88.9% - 94.8% and a mean of 91.4%. Retention of female students is slightly higher than males by less than 5 points in general.
- b. Age – Success by age in the same period demonstrated a range of 88.9% – 94.8% and a mean of 91.9%.
- c. Ethnicity – Success by ethnicity for the same period demonstrated a range of 88.9% - 94.8% with a mean of 91.8%.

The overall mean success rate for CVT courses is 91.7% which is significantly higher than that of the overall college average of 64.6%.

There is a general tendency that older students have higher success rates. The data indicates that students in the age range of 20-29 were most successful with regard to percent success.

Student success by ethnicity is listed in the following table:

Pacific Islander	100.0%
Asian	96.5%
White non-Hispanic	93.2%
Unknown	91.4%
Hispanic	90.8%
Other	89.4%
Filipino	86.9%
Black non-Hispanic	86.0%
American Indian-Alaskan Native	83.8%

### Course Retention

Course retention CVT students for the reporting period averaged 94.1 percent compared to a college average of 78.2%. Female retention rates are generally higher than males. The highest retention by age is 25 – 29 years group. Retention by ethnicity percent rates tend to follow those for student success with Asian students slightly higher than all other groups and Hispanic being slightly lower.

#### **5.2 Analyze and comment on any trends in enrollment, numbers of sections offered, average class size and efficiency.**

The number of students that can be enrolled in the program is determined by faculty and laboratory resources and the number of clinical sites available for placement of 2<sup>nd</sup> year students in the San Diego area as noted earlier. Fifty- four students are accepted to begin training each Fall Semester, and there is a waiting list. Enrollments, numbers of sections average class size and efficiency have remained stable since our previous Program Review.

#### **5.3 Comment on any sections that are historically under-enrolled and discuss strategies that might increase enrollment.**

Not applicable. Please see 5.3 above.

#### **5.4 Comment of the adequacy of facilities (e.g., does room size and configuration fit the teaching strategies?) and equipment for meeting instructional needs.**

Classrooms for lecture classes are adequate for current enrollments. Some sections of lab are crowded but manageable. There is inadequate room to store equipment throughout the 300 North building which has a negative impact on all Allied Health Programs. Construction of the new Health Science building will address that issue.

#### **5.5 How does room availability affect your enrollment?**

Please see item 5.2 above.

**5.6 Discuss alternatives your department/program has explored including off-site offerings.**

If assignment to students for clinical experience is included in off-site offerings, the program obviously relies heavily on local area hospitals and clinics to support our instructional program. It would not be effective or efficient to offer the majority of our major classes off-site since many are related to medical instrumentation located on campus. Although a class may be designated as “lecture” in scope, it is not unusual for an instructor to bring an electrocardiograph, ultrasound machine, pacemaker or other medical device into the classroom to enhance learning.

**5.7 Comment on the results of the Student Survey, Appendix 6, focusing on class times and facilities.**

**FACILITIES:**

Classrooms – 92.2% of student strongly agree or agree that the classrooms are clean and in good repair.

Equipment – 15.6% of students strongly agree, 42.9% agree and 15.6% are neutral on the availability and currency of equipment. 26% of the students agree or strongly disagree. It should be noted that the equipment consists of highly supplicated medical instrumentation and most is state-of-the-art and is deemed by the faculty to be adequate to current enrollments. The currency and state of the equipment is currently at the highest level in the history of the program. The current need for equipment in the lab is for additional monitors for the lab tables in Room 349 and will be a priority in our request for FY 2008.

Computer Technology – The Health Professions Computer Center has been upgraded by Instructional Media Services at the close of the Fall 07 semester. When the student survey was conducted 72.8% of students responded that computer technology was adequate and that number is expected to rise following the recent upgrade.

Class Times – The CVT curriculum tototally integrated, and all students must be fully enrolled in the Spring and Fall courses as appropriate. The labs are used extensively and shared with ROP and Anesthesia Technology classes, leaving little flexibility of altering the class schedule. Lectures and labs must also be scheduled in consideration of student assignment to local hospitals for clinical practicum.

**SECTION 6 – FISCAL PROFILE**

**6.1 Using Appendix 12, Subject WSCH Analysis Report: comment on trends reflected in the column “Earned WSCH/FTE(F)” for your overall department/program, and for specific courses over a five year period.**

The overall WSCH/FTEF for the fall semesters were evaluated and the following data obtained:

Semester/Year	WSCH/FTEF
Fall 01	284
Fall 02	360

Fall 03	366
Fall 04	384
Fall 05	356

Analysis: The WSCH/FTEF has remained relatively consistent over the years Fall 02 through Fall 05. The increase from 284 to 360 from Fall 01 to Fall 02 was due to an additional course being added to the Invasive Track of the program.

**6.2 Using Appendix 14, Fiscal Data; Outcomes Profile: analyze and comment on Earned WSCH/FTEF and Cost/FTES of the Department/Program.**

Total WSCH grew from 3,567 to 4,372 from FY 01/02 to FY 02/03 and has remained consistent over the past 5 years. The average for that period is 4472. Cost/FTES has declined from \$4,192.08 to \$3,436.13 over the same period. The average is \$3,626.

**6.3 If the department/program receives any outside financial support or subsidy, list those sources and the amount. Describe how the additional resources are used and how they relate to the regular college budget.**

The department was awarded a Bridge to Salary Grant for \$100,000 by the Grossmont Healthcare District in August 2008. The funds have been used to provide a \$1,000/month stipend to 4 full time CVT faculty members. The funding will be adequate for 2 years of stipends. The Grossmont Foundation has conducted a campaign to raise funds, resulting in approximately \$19,000 in donations. These funds will be used to recruit and retain qualified faculty. The fund-raising effort is on-going. In addition, the department receives VATEA funds to support the instructional process. A total of \$9,360 was received in VATEA funds for FY 07/08 and they were used for tutors, supplies and equipment.

**SECTION 7 – SUMMARY**

**7.1 Summarize department/program strengths and weaknesses in terms of:**

- **teaching and learning**
- **student access and success**
- **development of human resources**
- **fiscal stability**

Teaching & Learning – The Cardiovascular Technology faculty are highly motivated to excellence in their profession. They are outstanding mentors for our students and work hard to maintain currency to the scope of practice and in turn insure their courses are maintained on the cutting edge of medical diagnostics and intervention. Learning is student centered, uses current teaching methodology and equipment, and is designed to promote critical thinking, which is absolutely essential for a Cardiovascular Technologist in clinical practice. Our campus labs are equipped with state-of-the-art medical instruments and students have access to millions of dollars worth of equipment through our clinical affiliates that is not available on campus. A portion of our advanced clinical labs are conducted at local hospitals by practicing technologists where students receive virtually one-on-one instruction in invasive diagnostic and interventional cardiology, and cardiac and vascular ultrasound. There are two physicians that serve as our Medical Directors and an outstanding Advisory Committee to provide guidance as to curriculum content and currency. The program has support from the medical equipment industry, who provide discounts on equipment and in some cases provide expensive medical instruments for our students. The most recent example was the donation of a \$63,000.00 ultrasound machine by Biosound Esaote, Inc.

The biggest challenge to teaching and learning in the past 6 years has continued to be the difficulty in recruiting and maintaining qualified faculty. Graduates of the program typically begin their career as a Cardiovascular Technologist at a higher salary than a beginning college teacher. When an

experienced, qualified technologist is found who can also “teach,” the program is unable to compete with the salaries paid in clinical practice which can average \$80,000 to \$90,000 per year base, plus additional income for being on call for emergency cases.

The other major challenge to the program in recent years has been the lack of space to store equipment, but that will be eliminated when the new science building is completed.

Student Access & Success – Graduates of the program are recruited by hospitals and clinics nationwide. They obtain good jobs with excellent salaries and benefits and make a tremendous contribution to the diagnosis and treatment of patients with cardiovascular disease. Many go on to be managers, writers, teachers, medical researchers, and sales or applications reps in the medical equipment industry. These positions are stable with little threat of layoff during times of economic down-turn. The program has graduates throughout the United States, Australia, New Zealand, England, and the Middle East.

Access to the program follows a standardized process of first-come-first-served upon documentation of completion of the prerequisite courses. The number of students accepted is determined by available resources on campus and the number of clinical sites in San Diego County. There is an approximate 2 year waiting list to enter the program.

Development of Human Resources - Cardiovascular Technology is a very technical and ever-changing profession as new diagnostic and treatment modalities are incorporated into the scope of practice. In order for faculty to remain current in their specialty conference attendance where they can hear presentations on the latest findings in cardiovascular research, network with their peers and evaluate state-of-the-art instrumentation is essential.

One of the department activities for 2009/2010 focuses on exploring ways to develop selected components of the CVT curriculum in online or hybrid format and will require professional development for the faculty.

The current coordinator of the program has retired but returned to work until the faculty is stable at which time a new coordinator will be appointed and trained to assume the responsibilities of the department.

Fiscal Stability – The CVT budget is adequate for current enrollment provided an answer can be found with regard to faculty salaries. We have been fortunate to share in a series of block grants and donations that bring our labs and equipment to state-of-the-art status. The skills necessary in diagnostic medical imaging cardiac interventional procedures require small labs and tutor support, which makes the average CVT lab rather costly when compared to labs conducted on campus.

## SECTION 8 – CONCLUSIONS AND RECOMMENDATIONS

- 8.1 Make a rank-ordered list of department/program recommendations. These recommendations should be clearly based on the information included in Sections 1 through 7. Do not limit recommendations to only those dealing with resources.

Recruit and hire a replacement for the CVT Health Professions Specialist

Begin training a member of the CVT faculty to assume the Program Coordinator position  
Continue the provision of qualified tutors to assist students in the acquisition and refinement of basic and advanced skill in diagnostic testing  
Maintain the curriculum current to the scope of practice  
Explore ways of encouraging students to maintain contact with the program and to participate in national registry exams  
Complete the transition and physical relocation of the department to the new science building  
Develop selected components of the CVT curriculum into online or hybrid format  
Continue the existing and expand program linkages to the medical equipment industry in order to acquire state-of-the-art instrumentation to be used in lab practicum.



# **CARDIOVASCULAR TECHNOLOGY PROGRAM REVIEW**

## Summary Evaluation