



Cameron University



**Bachelor of Science in Computer Science**

**STUDENT DATA:**

**NAME:** ROADMAP'S DEGREE

**SSN:** 000-00-0000

**Credit Required**    **Potential Credit**

**English Composition I (ENGL 1113)**

**3.00**

Regular practice in reading and interpreting college-level texts and in writing expository essays that synthesize, incorporate and document the use of those texts to develop proficiency in critical thinking, reading, and writing.

{DANTES Code = 11.07.00}

**English Composition II (ENGL 1213)**

**3.00**

Continued training and practice in composition and introduction to literature through the writing of multiple essays, at least one of which is a documented research paper using MLA style. Prerequisite: ENGL 1113.

{DANTES Code = 11.07.00}

**Fundamentals of Speech (COM 1113)**

**3.00**

An introductory course designed to acquaint the student with the basic theory of the art of public speaking and to provide experience in the preparation and delivery of oral presentations.

{DANTES Code = 04.10.00}

**Mathematics Electives**

**3.00**

Select one of the following: MATH 1513, MATH 1613, MATH 1715, MATH 1813, MATH 2215, MATH 2713. Some major programs specify the course to be selected. Refer to the major to determine which course is specified.

NOTE: Mathematics courses numbered lower than 1513 do not apply toward degree requirements.

{DANTES Code = any 14.XX.XX series}

Visit the Cameron University website for a description of the above courses.

**Science Electives**

**8.00**

Select two courses from the below list.

- a. BIOL 1005 or BIOL 1364
- b. ESCI 1135 or CHEM 1004 or CHEM 1364/1361 or CHEM 1474/1471 or PHYS 1004 or PHYS 1115 or GEOL 1014 or PSCI 1055 or ASTR 1104.

{DANTES Code = 16.13.00 or 16.99.00 or most 16.XX.XX series}

One course must be a laboratory science.

<b>American Federal Government (PS 1113)</b>	<b>3.00</b>
A study of the American government system. The American experiment in federalism and democracy; origin and development of the United States Constitution; federal-state relations, civil liberties, the individual as a citizen; political parties; governmental services. {DANTES Code = 20.08.01}	
<b>US History to 1865 (HIST 1483) or US History since 1865 (HIST 1493)</b>	<b>3.00</b>
HIST 1483 - Introductory survey from European backgrounds through the Civil War.  HIST 1493 - A survey of the development of the United States from 1865 to the present. {DANTES Code = 20.07.05}	
<b>Humanities Electives</b>	<b>6.00</b>
To be selected from the following with no more than one course from the discipline in which the student is majoring.  1. Interdisciplinary Humanities Courses: HUM 2113, HUM 2223, HUM 2513 2. ART 1013, ART 2613, ART 2623 3. THTR 1103, FNAR 1013 4. ENGL 2013, ENGL 2053, ENGL 2313, ENGL 2323, ENGL 2343 5. FREN 1113, FREN 1223, FREN 2113, FREN 2223, GERM 1113, GERM 1223, GERM 2113, GERM 2123, ITAL 1113, ITAL 1223, LATN 1113, LATN 1223, LATN 2113, LATN 2223, SPAN 1113, SPAN 1223, SPAN 2113, SPAN 2223. 6. HIST 1113, HIST 1123, HIST 2143, HIST 3353 7. MUSC 1013, MUSC 1023, MUSC 1413 8. PHIL 1113, PHIL 2213 {DANTES Code = 08.06.00 or most 08.XX.XX series}	
Visit the Cameron University website for a description of the above courses.	
<b>Behavioral Science Electives</b>	<b>3.00</b>
Select one from the following: FAMS 1123, PSY 1113, SOCI 1113 {DANTES Code = 20.10.00 or 20.09.00}	
Visit the Cameron University website for a description of the above courses.	
<b>Economics Electives</b>	<b>3.00</b>
Select one from the following: AGRC 1334, ECON 2013, GEOG 3023, CRM 3603 {DANTES Code = 20.05.00 or 20.05.06}	
<b>Physical Education Activity</b>	<b>4.00</b>
1. Any physical education activity course(s) or HLTH 1012 2. Intramural sports (not to exceed 1 course) 3. Intercollegiate athletics (not to exceed 1 course) 4. Any of the following Military Science courses: MSL 1012, MSL 1022, MSL 2012, MSL 2002, MSL 3013, MSL 3023, MSL 4013, MSL 4023 (Each of which will satisfy one hour of the Physical Education	

activity requirement)

\*Not required if student:

1. is 30 years of age or older, or
2. is recommended by a medical doctor for waiver of the requirement, or
3. is awarded credit based on one year of active full-time military service

If you have already fulfilled this requirement the 4 credit hours will be required to be fulfilled in the Liberal Arts Electives.

**Liberal Arts Electives** **8.00**

No more than 6 hours of these electives in any one department.

{DANTES Code = 08.XX or 11.XX or 13.XX or 16.XX or 17.XX or 20.00 series}

**Operating System Utilities I (CS 1301)** **1.00**

The basic commands of the operating system currently in use. Corequisite: CS 1313.

**Introduction to Computer Science I (CS 1313)** **3.00**

An introduction to an object oriented programming language and its use in solving simple problems. Corequisite: CS 1301. Prerequisites: MATH 1513, concurrent enrollment in MATH 1513 or departmental permission.

{DANTES Code = 05.02.00}

**Operating System Utilities II (CS 1501)** **1.00**

Continuation of CS 1301. Corequisite: CS 1513. Prerequisite: CS 1301.

**Introduction to Computer Science II (CS 1513)** **3.00**

A continuation of CS 1313. Corequisite: CS 1501. Prerequisite: CS 1313.

{DANTES Code = 05.02.00}

**Discrete Math (CS 1523)** **3.00**

Fundamental mathematical concepts and algebraic structures. Introduction to the theory of graphs and trees. Emphasis on examples and applications rather than mathematical rigor. Prerequisites: MATH 1513 and CS 1313.

{DANTES Code = 14.14.00}

**Operating System Utilities III (CS 2401)** **1.00**

Continuation of CS 1501. Corequisite: CS 2413. Prerequisite: CS 1501.

**Data Structures (CS 2413)** **3.00**

An introduction to elementary data structures (stacks, queues, linked lists and trees) and their applications. A brief survey of sorting techniques.

Corequisite: CS 2401. Prerequisites: CS 1513 and CS 1523.

**Computer Organization and Architecture (CS 2513)** **3.00**

An introduction to the computer system, central processing unit, control unit, and parallel organization. Current architectural directions will be discussed. Prerequisites: CS 1513.

<b>Network and Distributed Computing (CS 3013)</b>	<b>3.00</b>
Concepts of multiprocessing and interprocess communication, networking protocol architecture, construction of client/server software using low and high level system calls. Introduction to parallel/distributed computing. Prerequisite: CS 2513.	
<b>Operating Systems (CS 3513)</b>	<b>3.00</b>
Overview of hardware and software, process management, storage management, processor management, and auxiliary storage management. Prerequisite: CS 2513.	
<b>Algorithm Analysis (CS 3713)</b>	<b>3.00</b>
A mathematical analysis of common algorithms: common searches and sorting, graphs, and string matching. An introduction to the notion of complexity. Prerequisites: CS 2413 and MATH 2235.	
<b>Parallel Computing (CS 3813)</b>	<b>3.00</b>
Parallel algorithms and implementations for sorting, searching, matrix processing and other problems. Efficiency issues of parallel algorithms on different architectures. Prerequisite: CS 2513.	
<b>Software Engineering (CS 4203)</b>	<b>3.00</b>
Acquisition of the skills necessary to control complex programming projects. Prerequisites: CS 2413 and senior standing.	
<b>Seminars</b>	<b>4.00</b>
Select from the below courses.	
CS 2001-3*, CS 3001-3, CS 3100, CS 4001-3, CS 3183	
*No more than 2 hours at the 2000 level.	
Visit the Cameron University website for a description of the above courses.	
<b>Computer Science Electives</b>	<b>3.00</b>
Select one course from the below list:	
CS 3343, CS 3443, CS 3573, CS 4013, CS 4223	
Visit the Cameron University website for a description of the above courses.	
<b>Calculus and Analytic Geometry I (MATH 2215)</b>	<b>5.00</b>
Limits, derivatives with applications, the definite integral with applications. Prerequisites: MATH 1513 and 1613 or MATH 1715 or equivalent. {DANTES Code = 14.04.00 or 14.04.01}	
<b>Calculus and Analytic Geometry II (MATH 2235)</b>	<b>5.00</b>
Techniques of integration, applications of integration, polar coordinates, sequences and series, vectors. Prerequisite: MATH 2215. {DANTES Code = 14.04.00 or 14.04.01}	

**Matrix Algebra (MATH 4433)** 3.00  
 Elementary operations with matrix algebra, determinants, inverse of a matrix, rank and equivalence, linear dependence, vector spaces and linear transformations, characteristic equations of a matrix; bilinear, quadratic and Hermitian forms. Prerequisite: MATH 2215 or departmental permission.

**Introductory Probability and Statistics I (STAT 3013)** 3.00  
 Descriptive statistics including graphical representation of data, elementary probability and combinatorial methods, binomial and normal distributions, statistical inference including point estimates of mean, variance and proportion, confidence intervals, test of hypotheses. Prerequisite: MATH 1513 or equivalent.  
 {DANTES Code = 14.09.00 or 14.09.06}

**Minor** 21.00  
 A minor for Bachelor of Arts and Bachelor of Science Degree programs consists of a minimum of 18 semester hours in an approved subject area. Defined minors are those for which a specific set of courses is recommended. Other approved minor programs are structured through the advisement process subject to the approval of the chair of the department which offers the courses. Minors which include courses from multiple departments are approved by the dean of the school which offers the majority of the program. Transfer students may use credits earned at other institutions to fulfill minor requirements. A transfer student who desires to minor in an area not listed below may do so, providing Cameron University offers at least 8 semester hours in the subject area. A student may not minor in Education.  
 Visit the Cameron University website for a complete listing of approved Minor Programs.

**Free Electives** 1.00

**Excess or Duplicate Credit**

**TOTAL** ..... 128.00 0.00

Thank you for requesting support from the U.S. Coast Guard Institute (CGI). Whereas we serve as an activity in support of your unit Educational Services Officer (ESO), you are encouraged to seek assistance from your local ESO in your academic endeavors. The following information is provided to help you understand what is presented in this degree plan:

This document is an UNOFFICIAL Degree Plan to provide you with a preliminary assessment of how your prior learning experiences might fit into the specified degree program for this academic institution. If you choose to pursue this degree option, you must present it to a college representative, who will review it for the following:

- o Accurate representation of the college's degree program requirements, including course numbers and titles, credit hours for each course, lower- and upper-level course requirements, and the total number of credits needed for the degree.
- o Appropriate assignment of ACE Guide-recommended credit at the lower or upper

level for military service schools and occupations, CLEP, DSST, and other tests, transfer credit for courses from other colleges and universities, certification programs, etc.

o Appropriate assignment of SOC Course Category Codes from the SOC Handbook Transferability Tables. The SOC Degree Program Handbooks can be obtained from the SOC web site at: [www.soc.aascu.org](http://www.soc.aascu.org) should you wish to learn more about the course transfer guarantees among SOC network institutions.

IMPORTANT NOTE: When you are ready to seek admission into this degree program, please contact the USCG Institute at 1-405-954-7241. Your advisor will send the college or university an official U.S. Coast Guard Institute transcript, a copy of the degree plan, and a ready-for-signature SOC Student Agreement which, when signed by a college official, becomes a contract for degree completion committing the college or university to supporting you in your academic endeavors.

Credit for all courses you have taken must be reflected on official transcripts sent directly to this college from the administrative offices of the colleges you previously attended. This degree plan is often used for information purposes by college counselors pending receipt of the official transcripts from the source colleges.

This degree plan is not intended to compete with your local college or university. Keep in mind, you are allowed to transfer in a significant amount of the degree requirements to this institution. As such, credit from local colleges, college level examination programs, or advanced military training may be applied to this degree. You may also complete the courses necessary from this college either in residence (on campus or possibly on a military base at a campus extension in the Education Center) or through distance delivery of the courses. If you have questions, please contact the college counselor or your advisor listed at the bottom of this Degree Plan.

#### DEGREE PLAN LEGEND:

SH = Semester hours  
VOC = Vocational, not relative to an academic degree  
LL = Lower Level, i.e. courses at the Freshman/Sophomore level  
UL = Upper Level, i.e. courses at the Junior/Senior level  
GL = Graduate Level (sometimes recommended by ACE for very complex courses)  
[#] such as [EN024A] or [EN024B] = SOC Course Category Codes\*  
{#} such as {DANTES Code = 01.02.03} = DANTES Academic Codes \*\*

\* SOC Course Category Codes: Service members Opportunity Colleges (SOC) is a consortium of over 1,600 accredited colleges and universities seeking to provide degree opportunities to the military. Over 170 of these institutions participate in network degree programs developed for the Army, Navy, Marine Corps, and Coast Guard. A SOC course category number beside a course from one of these institutions, such as [EN024A] or [EN024B] for English Composition, indicates that courses from other degree program institutions with the same code may be taken to satisfy the degree requirement. See the SOC Degree Programs Handbooks at <http://www.soc.aascu.org/>

\*\* DANTES Academic Codes: The Defense Activity for Non-Traditional Education

Support (DANTES) publishes the DANTES Independent Study Catalog (DISC) annually, which lists more than 6,000 courses from dozens of regionally accredited colleges and universities. Because this is a degree from a SOC affiliated college, the academic residency requirements are limited, thereby allowing students to transfer in a significant portion of the degree, as mentioned above. If the course you desire to take is not offered by this institution when you want to take it, consider the opportunities the courses in the DISC present. For more information, visit [http://www.dantes.doded.mil/dantes\\_web/distancelearning/disc/front/cont.htm](http://www.dantes.doded.mil/dantes_web/distancelearning/disc/front/cont.htm) Keep in mind, you should always check with the counselor or academic advisor at this institution before enrolling in a course listed in the DISC to ensure it will be accepted in transfer toward this degree.

#### Cameron University: General Information

The history of Cameron University corresponds to the history of the area it serves in Southwest Oklahoma. It was founded by the Oklahoma Legislature in 1908 as Cameron State School of Agriculture, one of six agricultural high schools in the state and placed under the jurisdiction of the State Commission of Agriculture and Industrial Education. The institution was named for E. D. Cameron, first State Superintendent of Schools.

Cameron added junior college work in 1927 when local needs demanded access to higher education. With the changed function came the name Cameron State Agricultural College. It became solely a college in 1941 when the Oklahoma State System of Higher Education was formed, and joined the group of institutions governed by the Board of Regents for Oklahoma A&M Colleges.

Baccalaureate degrees were authorized in 1966 by the Oklahoma State Regents for Higher Education, following action by the Legislature. In May of 1970, the first bachelors degrees were awarded. The institution's name was changed to Cameron College in 1971, and was further amended to Cameron University in 1974.

In 1988, the State Regents expanded Cameron's functions to include offerings at the masters degree level. This change in function was the first granted to an Oklahoma institution since Cameron was given authority to offer bachelors degrees more than 20 years earlier. The first masters degrees were awarded to forty-one graduates in May of 1990.

In May of 1992, an act of the legislature transferred the governance of Cameron University to the board which had previously governed only the University of Oklahoma. This new relationship with the University of Oklahoma has been hailed as the opportunity to underscore the emergence of Cameron as an interactive multi-purpose University. Both universities are committed to cooperative efforts to assure that the need for higher education programs and services are met throughout Southwest Oklahoma. Cameron will continue as the higher education center of Southwest Oklahoma and is now better positioned to fulfill the requirements of its interactive philosophy and mission.

#### Tuition and Fees (Non-Resident)

Tuition and mandatory fees (\$27.60) per credit hour  
\$242.00 for undergraduate courses  
\$290.00 for graduate courses

Tuition and Fees (Resident) (Includes Active Duty Military or Dependents stationed in Oklahoma)

Tuition and mandatory fees (\$27.60) per credit hour

\$100.00 for undergraduate courses

\$121.00 for graduate courses

For more information concerning this degree please contact:

Charles Wolfe

Assistant Director of Admissions

Cameron University

2800 West Gore Boulevard

Lawton, OK 73505-6377

(580) 581-2798

Fax: (580) 581-5514

email: [charlesw@cameron.edu](mailto:charlesw@cameron.edu)

<http://www.cameron.edu>

This college is rated as one of the nation's best in U.S. News & World Report's "America's Best Colleges" issue.

Evaluation completed by: Charles Morrison

On: 05 June 2007