



University of Maryland
University College



Bachelor of Science in Computer and Information Science

STUDENT DATA:

NAME: ROADMAP'S DEGREE

SSN: 000-00-0000

**Credit Potential
Required Credit**

Introduction to Writing (ENGL 101) [EN024B]

3.00

Practice in effective writing and clear thinking at all levels, including the sentence and paragraph, with emphasis on the essay and research report. Specific steps reviewed within the writing process include formulating purpose, identifying an audience, and selecting and using research resources and methods of development.

(ENGL 101 must be completed within the first 15 semester hours. A placement test may be required. This may not be earned through credit by examination.)

Another Writing Course

3.00

(CLEP General English with or without essay may apply here. No more than 3 semester hours of writing credit may be earned through credit by examination. All 3-credit COMM courses apply, except COMM 300, 380, 400, 486, A or B & 493. In addition, ENGL 102, 278F, 291, 294, 303, 391, 391X, 480, 482, 483, 485, & 493 apply. Additional courses include JOUR 201 and LGST 401.

{DANTES Code = 11.07.00}

Speech Communication or a Third Writing Course

3.00

(All 3-credit COMM and SPCH courses may apply, except COMM 486A & COMM 486B; and in addition the following apply: ENGL 102, 278F, 281, 281X, 291, 294, 303, 384. 391, 391X, 480, 482, 483, 485, & 495 or JOUR 201 apply.

{DANTES Code = 04.10.00 or 04.10.01}

Upper Level Intensive Writing

3.00

(Recommended courses COMM 393, 393X, 394 or ENGL 391)

{DANTES Code = some 11.08.00}

Arts and Humanities: One course each in two disciplines

6.00

(College credit by examination may apply. One course is required in two disciplines -- History and a course such as Art, Humanities, Music, Philosophy, Theater, Dance, Literature, or a Foreign Language.)

{DANTES Code = any 08.XX, any 11.XX, or some 04.XX series}

Behavioral & Social Sciences: One course each in two disciplines

6.00

(College credit by examination may apply. One course is required in two disciplines, such as Anthropology, Behavioral Science, Criminology and Criminal Justice*, Economics, Geography, Gerontology {Except GERO 341, 342,

351, and 353}, Government and Politics, Psychology, and Sociology. *Note: Not all Criminology and Criminal Justice courses apply. Eligible courses are CCJS 100, CCJS 105, 330, 350, 360, 432, 451, 452, 453, 454, & 461.)
{DANTES Code any 20.XX.XX series}

Biological / Physical Science with Laboratory 4.00

(A science lecture course, 3 sh, with related laboratory course, 1 sh, or a science course combining lecture and laboratory, 4 sh. Courses from the following discipline may apply: Astronomy, Biology, Biological Science, Chemistry, Geology, Natural Sciences, Physics, Botany, Entomology, General Science, and Zoology.)

Biological / Physical Science Elective 3.00

(College credit by examination may apply. Courses from the following discipline may apply: Astronomy, Biology, Biological Science, Chemistry, Geology, Natural Sciences, Physics, Botany, Entomology, General Science, and Zoology.)
{DANTES Code = 16.13.00 or 16.99.00 or most 16.XX.XX series}

College Algebra (MATH 107) [MH048B] 3.00

An introduction to equations, inequalities, and absolute values and a study of functions and their properties, including the development of graphing skills with polynomial, rational, exponential, and logarithmic functions. (Must be completed within the first 15 semester hours. A placement test may be required.)
{DANTES Code = 14.01.00}

Information and Research Methods (LIBS 150) 1.00

An introduction to the research process and methods for retrieving information in a library or through online sources. Experience in approaching research, selecting a topic, and retrieving information on topics of professional or personal interest is provided. Focus is on developing the following information literacy skills: understanding the research process; selecting relevant print and electronic sources to answer research questions; effectively using Web search engines and UMUC Information and Library Services' electronic resources to find information; and evaluating, organizing, and correctly citing the information found.

International Perspective 3.00

(Select from any foreign language, any Asian Studies course, ACCT 425, ANTH 102, ANTH 344, BMGT 392, ENGL 454, GVPT 200, HUMN 351, MRKT 454 or SPCH 482 only. College credit by examination may apply.)
{DANTES Code = 20.07.06. or 20.07.07 or 20.07.08 or 20.07.10}

Civic Responsibility 3.00

(College credit by examination may apply. Select from BMGT 496, ENGL 406, GVPT 100 or 403, HUMN 311, IFSM 304, NSCI 396 or 362, PHIL 140 or SPCH 426 only. Visit the UMUC website to view this lisitng.)
{DANTES Code = see 20.08.XX series}

Introduction to Problem Solving and Algorithm Design (CMIS 102) 3.00

A study of techniques for finding solutions to problems through structured programming and step-wise refinement. Topics include principles of

programming, the logic of constructing a computer program, and the practical aspects of integrating program modules into a cohesive whole. Algorithms are used to demonstrate programming as an approach to problem solving, and basic features of a modern object-oriented language are illustrated.

Introductory Programming (CMIS 141) [CS011B] 3.00

A study of structured and object-oriented programming using the Java language. Discussion covers the discipline, methodologies, and techniques of software development. Algorithms and simple data structures are developed and implemented in Java; object-oriented concepts are applied. {DANTES Code = 05.03.01 or 05.03.05}

Discrete Mathematics for Computing (CMIS 160) [MH064B] 3.00

An introduction to discrete mathematical techniques for solving problems in the field of computing. Basic principles from areas such as sets, relations and functions, logic, proof methods, and recursion are examined. Topics are selected on the basis of their applicability to typical problems in computer languages and systems, databases, networking, and software engineering. {DANTES Code = 14.14.00}

Data Structures and Abstraction (CMIS 241) [CS009B] 3.00

A study of program design and the implementation of abstract data types in Java. Topics include data structures such as stacks, queues, lists, and trees and algorithms used for sorting and searching.

Computer Systems and Architecture (CMIS 310) [CS031B] 3.00

A study of the fundamental concepts of computer architecture and factors that influence the performance of a system. Topics include data representation and the design and analysis of combinational and sequential circuits. Focus is on how basic hardware components (multiplexers, decoders, memories, arithmetic logic units, etc.) are built. Discussion covers hard-wired and micro-programmed design of control units and concepts such as pipelining and memory hierarchy.

Upper-Level Supplemental Courses 15.00

(Select any three UL CMIS courses for 9sh and any two 400-level CMIS (except 486A/B) for 6 sh. Visit the UMUC website for more information on these courses.)

Free Electives 49.00

(College credit by examination may apply. At least 45 semester hours of UL credit is required for the entire degree.)

Excess or Duplicate Credit

TOTAL 120.00 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 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 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.

University of Maryland University College General Information

Disclaimer from University of Maryland University College (UMUC): This Degree Plan is prepared by counseling staff not affiliated with UMUC for informational purposes only regarding educational options. Although this document contains information about UMUC courses, programs and policies and procedures, UMUC did not develop this document and therefore makes no representations or warranty regarding the accuracy or completeness of the information contained herein. The information contained in this Degree Plan is not intended to substitute UMUC admission and transfer requirements and should not be relied upon as acceptance by UMUC that the information contained satisfies UMUC requirements. Reference herein to any University trade name or mark does not constitute or imply the University's endorsement or recommendation. Students are urged to contact UMUC to discuss specific admissions requirements as they relate to each individual and UMUC welcomes all such contact.

University of Maryland University College (UMUC), one of 11 accredited, degree-granting institutions in the University System of Maryland, is the second largest university in the state, offering programs and services tailored for working adults. The university currently has more than 80,000 students worldwide, nearly 15,000 of whom are Maryland residents. In 1949, UMUC began providing educational services to U.S. military overseas. Today, UMUC is the leading education provider for the U.S. military, serving more than 47,000 service members worldwide at more than 100 locations. UMUC holds the highest honor given in Web education: the Sloan Consortium Award for Excellence in Institution-Wide Asynchronous Learning Network Programming. The university has won many other awards for online programming as well, most recently for having the Best Distance Education course as determined by

the Maryland Distance Learning Association.

A total of 45 semester hours of Upper Level credit is required for this degree. Lower Level credit in courses that may apply to courses in which a 300 or 400 course number at UMUC is specified as long as the content is compatible and the total number of Upper Level credit is still attained.

Half of the major program of study must be taken through UMUC. Except for the required foundation course (ENGL 303), students may apply three 1-credit courses within a single category toward the required 9 sh, not to exceed a total of six 1-credit courses for the entire major.

Tuition per course: (subject to change)
\$221 per semester hour active duty military
\$221 per semester hour in-state
\$407 per semester hour out-of-state

Employees of government agencies, corporations, and private business may be eligible for military tuition rates if they are members of any of the seven Military Reserve or National Guard components. Check with the admissions office to determine eligibility if applicable.

To discuss your next step toward earning this degree with UMUC, contact:

UMUC Enrollment Team
3501 University Blvd. East
Adelphi, MD 20783-8060
Phone: 1-800-888-UMUC
E-mail: enroll@umuc.edu
Website: <http://www.umuc.edu>

POLICY NOTES:

Transfer credit accepted by UMUC may include up to 30 semester hours of non-traditional credit for an Associates Degree or 60 semester hours for a Bachelor's Degree (military credit or college level testing). The remaining 30 semester hours for an Associates Degree or 60 semester hours for a Bachelor's Degree must be taken through colleges (15 semester hours for an Associates Degree or 30 semester hours for a Bachelor's Degree must be taken through UMUC).

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: 07 June 2007