

## OAKTON DUAL CREDIT COURSES

## MAINE SOUTH

OAKTON COURSE	COURSE NAME	SEMESTER HOUR OF CREDIT	COURSE DESCRIPTION
ACC 100	Accounting Procedures	3	Course introduces fundamental accounting procedures to complete the accounting cycle, including business transactions, adjusting entries, financial statements, and closing procedures. Also integrated are reconciliation of bank statements, examination of internal controls, and payroll procedures. This non-transfer course is intended for those students who want to learn basic accounting or for those who need preparation before enrolling in ACC 153.
ART 115	Beginning Photography	3	Course explains basic photography. Student, using their own cameras, explore basics of film exposure, development and printing. Focus is on realizing camera's ability to record fine delineation of tone and detail using black and white materials. Content includes use of studio cameras, studio lighting, brief history and basic aesthetics of photography. Studio work outside of regular class time required.
BIO 114	Basic Human Anatomy & Physiology	3	Non-laboratory survey course covers the structure and function of each body system. Content includes body planes, directional terms, quadrants, body cavities, and the major organs in each body system.
CAD 105	Industrial Design Engineering	4	Course introduces industrial design, and its place in the manufacturing process. Content includes design visualization, creation, and application of 3-D computer-generated models in today's manufacturing, communication, and publishing industries; creating a 3-D computer model component design from original idea, pencil sketching, and concept analysis, to use of surface and solid modeling software; use of Boolean operations in model construction and editing, display commands, detailing, geometric translation, rendering and presentation.
CAD 116	Basic AutoCAD	3	Course is first of three in drafting and design using AutoCAD software. Content includes setting up a drawing electronically; drawing and editing; construction techniques; display commands; effective layering; dimensioning and detailing; using blocks, and plotting.
CAD 210	Industrial Design Engineering Techniques	4	Course continues CAD 105, to increase skills for creating prototypes of computer models using 3-D modeling software. Hands-on lab course involves critical thinking skills related to industrial design and manufacturing. Content includes industrial techniques such as extrusions, laser cutting, fasteners, welding, sheet metal production, injection molding, and stereo lithography; production process utilizing computer controlled machining centers and prototyping equipment.
CAD220	CAD Introduction to Building Systems-Revit	4	Revit enables students to create full 3D architectural project models and place them in working drawings. Class focuses on the basic tools that the majority of users will need to work with. Topics include creating floor plans, adding views, adding various building components, and creating sheets for plotting.
CNS 105	Networking Essentials	3	Course introduces the technologies, terminology, and skills used in the world of data networking. Emphasis is on practical applications of networking and computer technology to real-world problems. Students gain the knowledge necessary to design and install a local area network. Topics include network hardware and software requirements, and network architecture.
CNS 170	Principles of Information Security	3	Course presents balance between security management and technical components of security. Focus is on Security Systems Development Life Cycle (SecSDLC). Topics include structured methodology as supportive framework to guide students through examination of components of information domain of Information Security Network; preparation for appropriate Network or Information Security Certification examinations. Prerequisite: CNS 105 or consent of instructor, coordinator or program chair
EAS 101	Physical Geology	4	Course introduces earth materials and the physical and chemical processes that sculpt earth's surface. Content includes rocks, minerals, earthquakes, volcanoes, glaciers, groundwater, coastal processes, geologic time, structural geology, and topographic maps. IAI General Education: P1 907L

<b>EGL 101</b>	<b>Composition I</b>	<b>3</b>	Course introduces strategies for planning, writing, and revising expository essays based on experience and reading. Content includes purpose, context, genre, and the rhetorical situation as elements in the writing process, as well as critical reading and analysis as the basis for essay writing. The first course in a two-course sequence with EGL 102. IAI General Education: C1 900
<b>EGL 102</b>	<b>Composition II</b>	<b>3</b>	Course introduces strategies for planning, writing, and revising advanced expository essays and the college research paper. Content includes critical reading and analysis, the structure of argument, and the use of sources. Prerequisite: EGL 101 with a minimum grade of C. IAI General Education: C1 901R
<b>HIT 104</b>	<b>Medical Terminology</b>	<b>3</b>	Course presents medical terminology through study of medical word roots, prefixes and suffixes. Focus on relationships among symptomatic, disease, and procedural terms.
<b>MAT 125</b>	<b>General Education Math</b>	<b>4</b>	Course focuses on mathematical reasoning and the solving of real-life problems. Topics include: counting techniques and probability, logic, set theory, and mathematics of finance. Calculators/computers used when appropriate. IAI General Education: M1 904
<b>MAT 252</b>	<b>Calculus III</b>	<b>4</b>	Course surveys topics of calculus for multivariable functions. Content focus is on vectors, functions of several variables, curves and surfaces, differentiation, partial derivatives, multiple integrals, and line integrals. Technology is integrated throughout. IAI General Education: M1 900-3
<b>MAT 262</b>	<b>Ordinary Differential Equations</b>	<b>3</b>	Course presents the solution of ordinary differential equations with applications, power series, Laplace transformations, systems of linear differential equations and numerical methods. Technology will be used when appropriate. Prerequisite: MAT 252 with minimum grade of C.
<b>MGT 160</b>	<b>Small Business Management</b>	<b>3</b>	Course presents the principles and problems of organizing a small business. Content includes an analysis of entrepreneurial qualifications and skills; capital resources and requirements; forms of ownership; and financial analysis and planning. Focus is on tax and legal considerations, staffing and learning to identify profit opportunities using market analysis; bringing products to market through effective advertising, personal selling and distribution methods and practices. Includes franchises, availability of government assistance through the Small Business Administration (SBA), evaluation of an existing business for purchase and special opportunities granted to small businesses in selling to government agencies.