Quick Chart

Oakton College

2025-2026 Dual Credit Courses at Maine South High School

Access the Maine Township course catalog via SchooLinks.

General Education (24 credit hours)	
EGL 101: Composition I (3 credit hours) EGL 102: Composition II (3 credit hours) SPE 103: Effective Speech (3 credit hours)	IAI Category: Communication
MAT 125: General Education Mathematics (4 credit hours) MAT 252: Calculus III (4 credit hours)	IAI Category: Mathematics
BIO 114: Basic Human Anatomy and Physiology (3 credit hours)	IAI Category: Science (Life)
EAS 101: Physical Geology (4 credit hours)	IAI Category: Science (Physical)
Career-Technical Education (39 Credit Hours)	
ATA 102: Introduction to Automotive Technology (4 credit hours)	Pathway: Automotive Technology
BNA 100: Basic Nurse Assistant Training (7 credit hours) BNA 105: Basic Nurse Assistant Job Training (1 credit hour)	Pathway: Basic Nurse Assistant Training
CAD 105: Industrial Design Engineering (4 credit hours) CAD 116: Basic AutoCAD (3 credit hours) CAD 210: Industrial Design Techniques (4 credit hours) CAD 220: Introduction to Building Information Modeling - Revit (4 credit hours)	Pathway: Computer-Aided Design
CNS 105: Networking Essentials (3 credit hours) CNS 170: Principles of Information Security (3 credit hours)	Pathway: Computer Networking and Systems
HIT 104: Medical Terminology (3 credit hours)	Pathway: Health Information Technology
MFG 111: Introduction to Computer Integrated Manufacturing (3 credit hours)	Pathway: Manufacturing Technology
Elective Options (20 Credit Hours)	
ACC 153: Principles of Financial Accounting (4 credit hours)	
ART 115: Beginning Photography (3 credit hours) ART 218: Advanced Black and White Photography (3 credit hours)	
MAT 140: College Algebra (4 credit hours) MAT 262: Ordinary Differential Equations (3 credit hours)	
MGT 160: Small Business Management (3 credit hours)	

Course Description

Oakton College

Maine South High School Dual Credit Course Guide

General Education (Gen. Ed.)

These are common 100-level college courses all students take and are accepted at other colleges/universities in Illinois as part of the Illinois Articulation Initiative (IAI). (Note: Many out-of-state colleges/universities also accept these courses but may have different general education requirements.) A combination of these courses across various subjects makes up the General Education Core Curriculum (GECC) and is required for all students seeking a college degree.

IAI Category: Communication

EGL 101: Composition I (3 credit hours)
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.

EGL 102: Composition II (3 credit hours)
Course introduces strategies for planning, writing, and revising advanced expository and argumentative essays and the college research paper. Content includes critical reading and analysis, the structure of argument, and the proper use of sources to avoid plagiarism.

SPE 103: Effective Speech (3 credit hours)
Course offers opportunities to develop and improve effective oral communication skills. Content includes rhetorical theory, organization and structure of ideas, techniques for general speaking and listening effectiveness, practical experience in individual and group presentations.

IAI Category: Mathematics

MAT 125: General Education Mathematics (4 credit hours)
Course focuses on mathematical reasoning and the solving of real-life problems. Topics include: mathematics of finance, counting techniques and probability, statistics and mathematical modeling. Calculators/computers used when appropriate.

MAT 252: Calculus III (4 credit hours)
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 integrated throughout.

IAI Category: Science (Life)

BIO 114: Basic Human Anatomy and Physiology (3 credit hours)
Non-laboratory survey course covers the structure and function of each body system. Content includes body planes, directional terms, quadrants, body cavities, the major organs in each body system and example disease states.

IAI Category: Science (Physical)
EAS 101: Physical Geology (4 credit hours)
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.

Career-Technical Education (CTE)

These courses are within the academic pathway of a career-focused certificate or degree program at Oakton and may transfer to other colleges/universities in various ways. They help students gain the knowledge and skills necessary to enter the workforce after high school graduation or continue their education journey beyond an Oakton certificate/degree.

ATA 102: Introduction To Automotive Technology (4 credit hours)
Introductory course to familiarize students with the history of the automobile. Students will learn basic service shop organizational skills, basic vehicle inspection, multi-meter use, light duty vehicle maintenance, proper vehicle lifting, proper use of hand and power tools required for entry level automotive positions, and how to navigate online service manual information. Students will also learn about career options within the automotive industry and how to write a resume.
Academic pathways: Automotive Technology A.A. S, Automotive Electrical Systems Certificate, Automotive Engines Certificate, Automotive Engine Performance and Emissions Certificate, Automotive Heating and Air Conditioning Certificate, Automotive Transmission and Powertrain Certificate, Automotive Under Car Certificate

BNA 100: Basic Nurse Assistant Training (7 credit hours)
Course offers a basic study of principles and procedures used by the nurse assistant in long term care, home health settings and hospitals. Content focus is on basic human needs and care of the elderly. Integration of skills and concepts is acquired through hands-on clinical experience at local health care facilities. This course is approved by the Illinois Department of Public Health (IDPH). Upon completion, students may apply to take the Illinois Nurse Assistant/Home Health Aide Competency Exam.
Academic pathways: Basic Nurse Assistant Training Certificate

BNA 105: Basic Nurse Assistant Job Training (1 credit hours)
Course expands understanding of today's health care workplace and the role of the CNA. Content focus is on gaining gain the job search techniques necessary to obtain employment in the health care field, e.g., hospitals, long term care and home health. Intended for those currently enrolled in BNA 100.
Academic pathways: Basic Nurse Assistant Training Certificate

CAD 105: Industrial Design Engineering (4 credit hours)
Course introduces industrial design and its place in the manufacturing process. Content includes design visualization, creation and application of three-dimensional (3D) computer-generated models in today's manufacturing, communication, and publishing industries; creating a 3D computer model component design from original idea, pencil sketching, concept analysis and use of surface and solid modeling software.
Academic pathways: General Design Certificate

CAD 116:Basic AutoCAD (3 credit hours)
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.
Academic pathways: Mechanical Design/ CAD A.A.S, Mechanical Design/ CAD Certificate, Industrial Design Engineering Certificate, Computer-Aided Design Certificate, General Design Certificate, Technical Communication Certificate

CAD 210: Industrial Design Techniques (4 credit hours)
Course teaches skills for creating prototypes of computer models using 3D modeling and prototyping software. Hands-on lab course involves critical thinking skills related to industrial design, digital prototyping and manufacturing. Content includes industrial design techniques using computer models for laser cutting, fasteners, 3D printing and production processes that employ computer-controlled machines and prototyping equipment.
Academic pathways: Industrial Design Engineering Certificate, General Design Certificate

CAD 220: Introduction to Building Information Modeling - Revit (4 credit hours)
Revit is a Building Information Modeling (BIM) software widely used by architects, engineers and contractors to create a unified model that all disciplines and trades can use to complete their work. Revit enables students to create full 3D architectural project models and place them in working drawings. Topics include creating floor plans, adding views, adding various building components, and creating sheets for plotting.
Academic pathways: General Design Certificate, Revit- Building Information Modeling (BIM) Certificate

CNS 105: Networking Essentials (3 credit hours)
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.
Academic pathways: Management of Information Systems (MIS) Certificate, Internet and Computer Core (IC3) Certificate, PC Support Specialist Certificate, Computer Networking and Systems A.A.S, Network Security Administrator Certificate, Windows Server Administration Certificate, Windows Support Technician Certificate, Network Security Administration A.A.S, Electronics and Computer Technology A.A.S, Electronics Technology Certificate, Supply Chain Automation A.A.S

CNS 170: Principles of Information Security (3 credit hours)
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.
Academic pathways: Management of Information Systems (MIS) Certificate, Computer Networking and Systems A.A.S, Windows Support Technician Certificate

HIT 104: Medical Terminology (3 credit hours)
Course presents medical terminology through study of medical word roots, prefixes and suffixes. Focus on relationships among symptomatic, disease, and procedural terms.
Academic pathways: Health Information Technology A.A.S, Radiography A.A.S Pathway, Surgical Technology A.A.S Pathway, Medical Assistant Certificate, Medical Coding and Billing Certificate, Phlebotomy Certificate, Physical Therapist Assistant A.A.S

MFG 111: Introduction to Computer Integrated Manufacturing (CIM) (3 credit hours)
Directed towards new students interested in careers in Manufacturing and CNC, the course introduces students to Computer Integrated Manufacturing (CIM). The main content introduces advanced manufacturing, industrial safety, print reading, ferrous and non-ferrous materials, precision measurements, fundamentals of CNC, and welding. Additional topics include an overview of fluid power principles, automation fundamentals, robotics and vision systems, and basics of logic controllers (PLC).
Academic pathways: Advanced Manufacturing Certificate Pathway, Welding Technician Certificate, Production Technician Certificate

Electives

These courses may count toward college certificate/degree programs in various ways. Each college certificate/degree program requires different electives; therefore, students should consider their potential college or career pathways when taking these types of courses.

ACC 153: Principles of Financial Accounting (4 credit hours)
Course covers preparation and analysis of financial information using generally accepted accounting principles. Content includes the accounting cycle, financial statement preparation, merchandise accounting, internal controls, cash, receivables, inventory, payables, property, plant and equipment, intangible assets, liabilities, stockholders' equity, cash flow statement, and financial statement analysis.
Academic pathways: Accounting Associate A.A.S, Associate of Arts (A.A) Business/ Accounting Pre-Major, Accounting Associate Certificate

ART 115: Beginning Photography (3 credit hours)
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.
Academic pathways: Graphic Design A.A.S, Photography Certificate

ART 218: Advanced Black and White Photography (3 credit hours)
Course refines darkroom technique of ART 115. Content includes issues of film exposure and development in order to produce "perfect" negatives, various films, developers, chemicals, papers and toners, and advanced studio lighting; medium and large format photography introduced. Focus is on student assignments and personal projects.
Academic pathways: Associates of Art, Associates of Science

MAT 140: College Algebra (4 credit hours)
Topics discussed in this course include functions and their graphs, polynomial and rational functions, exponential and logarithmic functions, systems of linear and nonlinear equations, matrices, sequences and series, and study skills. Applications and technology are integrated throughout.
Academic Pathways: Associates in Art, Associates in Science, Accounting Associate A.A.S, Associate of Arts (A.A) Business/ Accounting Pre-Major, Computers and Information Systems A.A.S, Electronics Technology Certificate

MAT 262: Ordinary Differential Equations (3 credit hours)
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.
Academic pathways: Associates in Art, Associates in Science

MGT 160: Small Business Management (3 credit hours)
Course presents the principles and problems of organizing a small business. Content includes 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.
Academic pathways: Associates in Art, Associates in Science