

# OCM BOCES

## Career and Technical Education (CTE) / New Visions

### Course Descriptions

CTE programs are designed to prepare students for either direct entry into employment upon graduation, or entry into a two year college. **Students begin these programs in their junior year**, and must be on track with their credits in order to enroll in BOCES. Unless otherwise noted, programs are located at the McEvoy BOCES in Cortland.

Each program is 3 credits per year, and students receive their third math and science credit in within the BOCES programs. Typically, students have time in their home school schedule for only the following classes: English, Social Studies and PE.

- *Automotive Collision Technology*
- *Automotive Technology NATEF*
- *Computer Technology*
- *Construction Technology*
- *Cosmetology*
- *Culinary Arts*
- *Graphic Communications*
- *Health Occupations Technology*
- *Welding Technology*
- *Early Childhood Education*
- *Physical Therapy Professions*

Prerequisites for BOCES enrollment in 11<sup>th</sup> grade include successful completion of:

- ❖ **2 Math credits**
- ❖ **2 Science credits**
- ❖ **2 English credits**
- ❖ **2 Social Studies credits**
- ❖ **1 Art/Music credit**
- ❖ **½ Health credit**

## New Visions Programs

New Visions programs are **senior year programs** which immerse students in the field on a daily basis. The programs are competitive in nature, and are designed to prepare students for entry into a 2 or 4 year college upon graduation. Students who meet the eligibility requirements typically have an 85 + avg. with excellent attendance.

- *New Visions Medical*
- *New Visions Environmental Science*

**AUTO COLLISION TECHNOLOGY** 2 years (Science Credit 11<sup>th</sup>, Math Credit 12<sup>th</sup>)

This is a program that prepares students for occupations in:

- ❖ the modern auto body collision repair industry,
- ❖ technical college, and
- ❖ repair occupations requiring exacting standards.

All areas of auto collision repair are covered in this two-year program, including:

- ❖ auto body materials,
- ❖ color matching,
- ❖ custom painting,
- ❖ paint products,
- ❖ hand and power tools,
- ❖ basic measurement skills,
- ❖ high-strength steels,
- ❖ plastic and composite part repair.

**AUTO TECHNOLOGY NATEF** 2 years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>)

The auto technology program is designed to provide students with basic mechanical knowledge and skills. The jobs range from a simple oil change to complex on board computer systems.

Automotive students will be responsible for work in:

- ❖ NATEF classroom theory, and
- ❖ NATEF applied Communications, Mathematics, and Science.

With a two-year course of study, four mandatory NATEF modules are covered;

- ❖ Brakes,
- ❖ Suspension/Steering,
- ❖ Electrical/Electronic Systems, and
- ❖ Engine Performance.

**CONSTRUCTION TECHNOLOGY** 2 Years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>)

The Construction Technology program stresses the development of skills in:

- ❖ rough carpentry,
- ❖ masonry,
- ❖ concrete work,
- ❖ residential electricity,
- ❖ plumbing and heating;
- ❖ finish carpentry (cabinet making), and
- ❖ roofing and siding.

Students will gain a variety of technical skills including:

- ❖ OSHA and NOCTI approved construction safety standards,
- ❖ residential construction,
- ❖ framing,
- ❖ roofing,
- ❖ siding,
- ❖ drywall finish,
- ❖ blueprint reading and drafting,
- ❖ cabinet installation,
- ❖ residential wiring,
- ❖ basic electrical;
- ❖ “Energy Star” approved insulating standards,
- ❖ site layout and
- ❖ trim carpentry.

**GRAPHIC COMMUNICATION** 2 Years (Science Credit 11<sup>th</sup>, Math Credit 12<sup>th</sup>)

Graphic Communications encompasses many areas of study in Graphic/Computer Design, and there is a photography component within this course as well. Projects include publications, book covers, logos, flyers, posters, Webpages, advertisements, and other commercial applications.

Students are able to digitally design and illustrate real life and simulated projects using:

- ❖ Adobe Photoshop Macromedia,
- ❖ I Movie, PageMaker and
- ❖ Freehand software.

**WELDING TECHNOLOGY** 2 years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>)

Students in this two-year program learn metal-working processes that include welding, cutting, grinding and custom fabrication.

Daily hands-on training exercises reinforce skills that enable students to reach entry-level proficiency in:

- ❖ stick welding,
- ❖ MIG and TIG welding,
- ❖ flame-cutting,
- ❖ plasma cutting,
- ❖ tool and equipment use
- ❖ shop math, and
- ❖ blueprint reading.

Safety practices and craftsmanship are priorities, and student projects are strongly encouraged. Second year students can enter the welding industry with the help of paid and unpaid internships. Graduating students are qualified and prepared to perform entry-level work in the field, or to attend post-secondary educational institutions.

**COSMETOLOGY** 2 Years (Science Credit 11<sup>th</sup>, Math Credit 12<sup>th</sup>)

The Cosmetology Program provides training in areas of hair, skin and nail analysis.

Product knowledge, technical application and procedures are taught in the areas of:

- ❖ shampooing,
- ❖ massage,
- ❖ styling,
- ❖ shaping,
- ❖ coloring,
- ❖ hair restructuring
- ❖ esthetics and
- ❖ nail specialists.

Curriculum is designed to provide 1,000 hours of interactive instruction and, those students who have completed 1,000 hours of training are eligible to take the written and practical examination to obtain a New York State license.

**CULINARY ARTS** 2 Years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>)

First year students will concentrate on:

- ❖ food service careers sanitation,
- ❖ safety tools,
- ❖ equipment,
- ❖ applied math,
- ❖ basic arts of baking,
- ❖ cold food and food preparation stations, and
- ❖ instruction in cooking and preparation skills.

Second year students will explore careers in related areas of:

- ❖ restaurant management,
- ❖ institutional facilities,
- ❖ franchise management,
- ❖ grocery purveyors and suppliers,
- ❖ public health department, and
- ❖ facilities layout and design.

They will also acquire certification in sanitation and beef. Project based portfolios will finalize the second year.

**HEALTH OCCUPATIONS TECHNOLOGY** 2 Years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>)

This course is offered to students who would like to explore options working with the elderly in the health care setting. Students will also have the chance to explore careers within the health care field, including nursing, nutrition, and physical and speech therapy.

The second year focuses on:

- ❖ Medical Terminology through a systems based approach.
- ❖ a chance to receive 3 credits from TC3 for a Medical Terminology class.
- ❖ The opportunity to sit for the NYS CNA Certification Test for students who have accrued enough clinical hours.

**PHYSICAL THERAPY PROFESSIONS** 2 Years (Science Credit Either Year) Offsite – Port Watson Street

This is a two year course offered to high motivated students who are interested in a career in physical therapy assistant or a related field. Students study the fundamentals of elements of movement, evaluation, treatment, anatomy and physiology. Students will shadow professional in the field, and will earn dual enrollment college credit. With further training, career opportunities include:

- ❖ Physical Therapy Asst.
- ❖ Athletic Trainer
- ❖ Occupational Therapist
- ❖ Rehabilitation Counselor

**COMPUTER TECHNOLOGY** 2 YEARS (Science Credit 11<sup>th</sup>, Math Credit 12<sup>th</sup>)

The first year of the program deals with repair and rebuilding of computers. Students may elect to receive 3 college credits from TC3 for each year of the program (total of 6 credits) by successfully completing the TC3 concurrent enrollment requirements.

The IT Essentials course is divided into two sections:

- ❖ core competencies in the latest hardware and
- ❖ software technologies, with emphasis on information security skills, safety and environmental issues and 21<sup>st</sup> Century Skills.

The second year prepares a student to be a support specialist in networking, and internships in the second year will also provide students with the business aspect of computer technology.

**EARLY CHILDHOOD EDUCATION** 2 Years (Math Credit 11<sup>th</sup>, Science Credit 12<sup>th</sup>) Off site – Port Watson

This program is for high school students who want to pursue a career working with young children. Students learn about the characteristics, needs and behaviors of three and four year olds and how to guide and teach them in a nursery school setting.

Students study child development through:

- ❖ Projects,
- ❖ Observations,
- ❖ Videos,
- ❖ Speakers, and
- ❖ Field trips.

Graduating students are immediately employable in the child care field.

**NEW VISIONS MEDICAL** (Cortland Memorial Hospital)

This is a one year program in senior year, offered to highly motivated students who are pursuing a career in the Health Care fields. Students experience firsthand work with nurses, physicians, technicians, and other professionals in the field. Students enrolling in the program must complete a medical clearance before they can start. Dual enrollment college credits are included.

**NEW VISIONS ENVIRONMENTAL SCIENCE** Lime Hollow Nature Center, Cortlandville)

This senior, one year course allows students to explore environmental issues in a real world setting on nearly 430 acres of forests, fields and streams. Students will study and research topics in:

- ❖ Forestry
- ❖ Fish and Wildlife
- ❖ Maple Production
- ❖ Environmental Issues
- ❖ Soil, Land and Water Use

Dual enrollment college credits are included.