



2018-19

ESSEX COUNTY SCHOOLS OF TECHNOLOGY

CTE PROGRAMS OF STUDY



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WEST CALDWELL TECH

ANIMAL SCIENCE

An instructional program that focuses on Animal Science and related sciences and that prepares individuals to apply specific knowledge, methods, and techniques to the management and performance of animal care related fields. Includes a Research and Development course and potential internships with local animal hospitals and veterinary clinics.

AGS101	AG, FOOD, NATURAL RESOURCES
AGS202	PRINCIPLES OF ANIMAL SCIENCE
AGS303	ANIMAL BIOTECHNOLOGY
AGS401	RESEARCH & DEVELOPMENT

CONSTRUCTION TRADES TECHNOLOGY

A program that prepares individuals to apply technical knowledge and skills to residential and commercial building construction and remodeling. Includes instruction in construction equipment and safety; site preparation and layout; construction estimating; blueprint reading; building codes; framing; masonry; heating, ventilation, and air conditioning; electrical and mechanical systems; interior and exterior finishing; and plumbing.

CON102	INTRO TO CONSTRUCTION TRADES
CON202	CONSTRUCTION TRADES TECHNOLOGY I
CON301	CONSTRUCTION TRADES TECHNOLOGY II
CON401	CONSTRUCTION TRADES TECHNOLOGY III

MUSIC TECHNOLOGY

A program that focuses on the creative aspects of the blending of music and technology; and that prepares individuals to apply technical knowledge and skills to the composition, recording, synthesis, and performance of music; audio-visual production; scoring for film and multimedia; and software and multimedia development.

MUS101	INTRO TO MUSIC TECHNOLOGY
MUS202	MUSIC TECHNOLOGY I
MUS302	MUSIC TECHNOLOGY II
MUS402	MUSIC TECHNOLOGY III

CULINARY ARTS

A program that prepares individuals to provide professional chef and related cooking services in restaurants and other commercial food establishments. Includes instruction in the management of restaurants and food service establishments.

CUL102	INTRO TO CULINARY ARTS
CUL105	GREENHOUSE MANAGEMENT & FOOD CITIZENSHIP
CUL203	FOUNDATIONS OF RESTAURANT MANAGEMENT
CUL202	FARM TO TABLE
CUL201	CULINARY ARTS II
CUL302	CULINARY ENTREPRENEURSHIP
CUL303	CULINARY ARTS III: BAKING & PASTRY
CUL301	CULINARY ARTS III: INTER. CUISINE
CUL401	CULINARY ARTS IV: ADV. INTER. CUISINE
CUL402	CULINARY ARTS IV: INTER. BAKING & PASTRY

COSMETOLOGY

A program that generally prepares individuals to cut, trim, and style scalp, facial, and body hair; apply cosmetic preparations; perform manicures and pedicures; massage the head and extremities; and prepares for practice as NJ State Licensed Cosmetologist.

COS103	INTRO TO COSMETOLOGY
COS201	COSMETOLOGY I
COS302	COSMETOLOGY II
COS402	COSMETOLOGY III

SPECIAL PRODUCTS MARKETING

A program that prepares individuals to perform marketing and sales operations connected with the promotion of special products, including floristry, food, and home and office products. Course includes instruction in principles of marketing research, advertising, media relations, and applicable technical and administrative skills.

MKT111	INTRO TO RETAIL CAREERS
MKT211	RETAIL CAREERS I
MKT311	RETAIL CAREERS II
MKT411	RETAIL CAREERS III

ROBOTICS

A program that prepares individuals to apply technical knowledge and skills to design robotics for a purpose using various computer languages, tools, and equipment. Includes cutting edge technology that allows students to not only design any type of robot they want, but also allows them to manufacture it onsite.

EGN103	INTRO TO ROBOTICS
EGN206	FUNDAMENTALS OF JAVA
EGN207	ROBOTICS: DESIGN PRINCIPLES
EGN304	ADVANCED ROBOTICS
EGN305	ROBOTICS: ADOBE 2D DESIGN

AUTOMOTIVE MECHANICS TECHNOLOGY

A program that prepares individuals to apply technical knowledge and skills to repair, service, and maintain all types of automobiles. Includes instruction in brake systems, electrical systems, engine performance, engine repair, suspension and steering, automatic and manual transmissions and drive trains, and heating and air condition systems.

TDL113 INTRO TO AUTOMOTIVE TECHNOLOGY
TDL211 AUTOMOTIVE TECHNOLOGY I
TDL312 AUTOMOTIVE TECHNOLOGY II
TDL411 AUTOMOTIVE TECHNOLOGY III

PAYNE TECH

Programs that prepare individuals to apply technical knowledge and skills to residential and commercial applications, equipment and safety for Carpentry, Electrical, HVAC/R, Plumbing, and Architectural Drafting.

CARPENTRY

CON111 INTRO TO CARPENTRY
CON211 CARPENTRY I
CON311 CARPENTRY II
CON411 CARPENTRY III

ELECTRICIAN

CON121 INTRO TO ELECTRICAL CONSTRUCTION
CON221 ELECTRICAL CONSTRUCTION I
CON321 ELECTRICAL CONSTRUCTION II
CON421 ELECTRICAL CONSTRUCTION III

PLUMBING

CON151 INTRO TO PLUMBING
CON251 PLUMBING I
CON351 PLUMBING II
CON451 PLUMBING III

MASONRY

CON161 INTRO TO MASONRY
CON261 MASONRY I
CON361 MASONRY II
CON461 MASONRY III

CONSTRUCTION TRADES TECHNOLOGY

A program that prepares individuals to apply technical knowledge and skills to residential and commercial building construction and remodeling. Includes instruction in construction equipment and safety; site preparation and layout; construction estimating; blueprint reading; building codes; framing; masonry; heating, ventilation, and air conditioning; electrical and mechanical systems; interior and exterior finishing; and plumbing.

CON102	INTRO TO CONSTRUCTION TRADES
CON202	CONSTRUCTION TRADES TECHNOLOGY I
CON301	CONSTRUCTION TRADES TECHNOLOGY II
CON401	CONSTRUCTION TRADES TECHNOLOGY III

GRAPHIC & FASHION DESIGN

This hands-on, college preparatory, creative/technical program is for students who thrive on using technology, love design, drawing, photography, and computers, are curious about color, typography and imagery. Study how design interacts with people on a daily basis

The fashion design coursework has a rich, hands-on curriculum focusing on design skills and a broad array of transferable garment construction techniques. Every student will experience all aspects of garment construction and design starting at entry level with no prior experience required. As students continue through this program, they will perfect their skills in advanced garment construction, computerized garment design and creative embroidery design using advanced technology to simulate industry standards.

In both fields, student will learn and create with the Adobe Creative Suite software (Illustrator, Photoshop, After Effects, InDesign). Through a combination of project work, site visits, field trips and career work experience, students are immersed in the industry. Students create professional portfolios and may earn the certification awarded by Adobe Associates Software Certification.

DAC 142	INTRODUCTION TO ART & DESIGN
DAC241	GRAPHICS ART I
DAC261	FASHION DESIGN I
DAC341	GRAPHIC ARTS II
DAC471	FASHION DESIGN III
DAC561	AP STUDIO ART 2D DESIGN

ENTERTAINMENT AND PRODUCTION ARTS

This program focuses on all aspects of the ever growing entertainment industries. Students will have the opportunity to learn about the latest advancements in digital music production, music theory, broadcast television production, and digital filmmaking and performing arts.

Our state of the art facilities will house a full television studio, digital filmmaking lab, two digital music production classrooms with built in sound proof recording booths, and 800 person auditorium with professional lighting and audio.

DIGITAL FILMMAKING AND TELEVISION PRODUCTION

DAC 111	INTRODUCTION TO TELEVISION BROADCASTING
DAC 112	INTRODUCTION TO DIGITAL FILMMAKING
DAC 211	DIGITAL FILMMAKING I
DAC 242	TELEVISION BROADCASTING I
DAC 311	TELEVISION BROADCASTING II
DAC 313	DIGITAL FILMMAKING II
DAC 412	ADVANCED DIGITAL FILMMAKING
DAC 413	ADVANCED TELEVISION BROADCASTING

MUSIC TECHNOLOGY

MUS101	INTRO TO MUSIC TECHNOLOGY
MUS202	MUSIC TECHNOLOGY I
MUS302	MUSIC TECHNOLOGY II
MUS404	AP MUSIC THEORY AND PRODUCTION

PERFORMING ARTS

THE100	EXPLORATORY THEATER ARTS
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ACCOUNTING TECHNOLOGY

A program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.

BUS223	INTRODUCTION TO FINANCE
BUS221	INTRODUCTION TO ACCOUNTING
BUS322	INTERMEDIATE FINANCE
BUS323	INTERMEDIATE ACCOUNTING
BUS424	COLLEGE ACCOUNTING

MARKETING

A program that generally prepares individuals to undertake and manage the process of developing consumer audiences and moving products from producers to consumers. Includes instruction in buyer behavior and dynamics, principle of marketing research, demand analysis, cost-volume and profit relationships, pricing theory, marketing campaign and strategic planning, market segments, advertising methods, sales operations and management, consumer relations, retailing, and applications to specific products and markets.

BUS120	BUSINESS ESSENTIALS
BUS220	INTRODUCTION TO MARKETING
BUS222	PROFESSIONAL COMMUNICATION STRATEGIES
BUS228	INTRODUCTION TO MEDICAL BILLING
BUS333	BUSINESS ORGANIZATION AND MANAGEMENT
BUS233	BUSINESS ORGANIZATION AND MANAGEMENT
BUS224	INTRODUCTION TO OFFICE PROCESURES
BUS321	BUSINESS COMMUNICATIONS AND ENTERTAINMENT
BUS324	INTRODUCTION TO ECONOMICS
BUS325	MARKETING
BUS326	ENTREPRENEURSHIP
BUS425	E-COMMERCE
BUS426	INTRODUCTION TO LAW
BUS427	ECONOMICS
8802	INTRODUCTION TO BUSINESS
BUS232	GLOBAL LOGISTICS I
BUS334	GLOBAL LOGISTICS I
BUS336	GLOBAL LOGISTICS II
BUS430	INTEGRATED BUSINESS CAPSTONE
BUS431	GLOBAL BUSINESS AND BANKING

ENGINEERING

A program that prepares individuals to apply technical knowledge and skills to solve problems while implementing the engineering design process. Students will be prepared to enter an engineering major at a college or university upon completion of this program.

EGN102	FOUNDATIONS OF TECHNOLOGY
EGN203	TECHNOLOGICAL DESIGN
EGN204	INTRO TO AUTOCAD
EGN205	INTRO TO ROBOTICS

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WEB DESIGN

A program that generally prepares individuals to design, build and maintain websites. Students are considered for highly competitive and sought after internships as part of this program.

GAME DESIGN

A program that prepares individuals in the skills of 2D and 3D animation, coding, and interactive media design. Students are able to create their own games and apps.

WEB102	INTRO TO WEB DESIGN
CIS105	INTRO TO MEDIA DESIGN AND PRODUCTION
WEB202	BASIC WEB DESIGN
WEB302	INTERACTIVE MULTIMEDIA DESIGN APPS
WEB306	INTERNET CONCEPTS
WEB310	ENHANCED COMP LAYOUT AND DESIGN

WEB403	WEB MASTER
CIS203	3D MODELING MEDIA DESIGN AND DEVELOPMENT
CIS351	ANIMATION MEDIA DESIGN
CIS354	C SHARP
CIS403	MEDIA DESIGN AND PRODUCTION CAPSTONE

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

A program that prepares individuals for law enforcement services as well as other aspects of the Judicial System. Includes instruction in Forensic Science and Criminal Law.

LPS102	LPS I: INTRO. TO CRIMINAL JUSTICE
LPS103	LPS I: POLICE CONCEPTS & SKILLS
LPS202	LPS II: LAW
LPS204	LPS II: CRIME SCENE INVESTIGATION
LPS203	LPS II: FORENSICS
LPS201	LPS II: POLICE
LPS501	AP UNITED STATES GOV & POLITICS
LPS502	AP COMPARITIVE GOV. & POLICIES
LPS301	LAW AND PUBLIC SAFETY III
LPS302	LAW AND PUBLIC SAFETY III: PRINCIPLES OF FIREFIGHTING
LPS511	AP UNITED STATES GOV & POLITICS AP COMPARITIVE GOV. & POLICIES
LPS512	AP COMPARITIVE GOV. & POLICIES
LPS402	LAW AND PUBLIC SAFETY IV: SORA
LPS400	LAW AND PUBLIC SAFETY IV
LPS403	LPS4:EMERG MAN & FIRE

NEWARK TECH

ACCOUNTING TECHNOLOGY

A program that prepares individuals to provide technical administrative support to professional accountants and other financial management personnel. Includes instruction in posting transactions to accounts, record-keeping systems, accounting software operation, and general accounting principles and practices.

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HEALTH CAREERS ACADEMY

A program that focuses on the aspects in the field of Health Sciences. Includes instruction in principles and practices of Nursing and Medical Assisting.

HCA220	INTRO TO HEALTH CAREERS
HCA221	INTRO TO MEDICAL ASSISTING
HCA222	INTRO TO NURSING
HCA223	DYNAMICS OF HEALTH CARE
HCA301	ANATOMY & PHYSIOLOGY I
HCA303	ANATOMY & PHYSIOLOGY II
HCA310	KINESIOLOGY

HCA320
HCA322

FUNDAMENTALS OF EMERGENCY CARE
MEDICAL ASSISTANT I

CABINETMAKING

A program that focuses on the aspects in the field of Manufacturing. Includes instruction in principles and practices of Cabinetmaking.

MAN121	INTRO TO CABINETMAKING
MAN221	CABINETMAKING I
MAN321	CABINETMAKING II
MAN421	CABINETMAKING III

WELDING

A program that focuses on the aspects in the field of Manufacturing. Includes instruction in principles and practices of Welding.

MAN111	INTRO TO WELDING
MAN211	WELDING I
MAN311	WELDING II
MAN411	WELDING III

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