# Applied Arts

## **Family and Consumer Sciences**

Creative Cuisine
Gourmet
Real-World Cooking for Seniors
Culinary Arts and Hospitality
Human Growth and Child Development 1 & 2
Fashion Construction

## Pre-Engineering: Project Lead The Way (PLTW)

Introduction to Engineering Design Principles of Engineering Civil Engineering and Architecture Biotechnical Engineering Digital Electronics

## **Technology Education**

Introduction to Design Technology/Introduction to
Computer Coding
Interior Design
Introduction to Architecture
Architectural Models
Architectural Studio
Automotives 1 & 2
Geometry, Design, and Construction
Wood & Metal Design
Furniture Making and Design
Skilled Trades and Emerging Careers
Research, Design, and Digital Fabrication

#### APPLIED ARTS PHILOSOPHY

Applied Arts is a department that engages students in hands-on, real-world experiences in architecture, engineering, design technology, automotives, culinary, and child development. Students develop essential problem-solving and leadership skills by creating innovative solutions to real-life challenges. Together, students and instructors create, make, solve, build, analyze, and

#### **HOMEWORK**

In the Applied Arts Department, homework can be an integral part of the learning process. Depending on class format, curriculum, equipment, and software used, course homework varies from zero assignments per week to a few assignments per week. Every applied arts course has a policy and expectations about projects and assignments that are not finished during class time. When work is not completed during class time, the expectation is that students will complete unfinished projects and assignments at home or during non-scheduled class time. Assigned homework will vary based on a student's enrollment in a course for major credit or for elective credit. Please note that students taking an applied arts course for elective credit do not take a final examination at the end of each semester. Students taking an applied arts course for major credit will be required to complete

#### PROJECT LEAD THE WAY (PRE-**ENGINEERING) COLLEGE CREDIT**

Project Lead the Way (PLTW) is a sequential engineering program that can potentially lead to college credit transferable to universities such as Purdue, Bradley, Milwaukee School of Engineering, and the University of Illinois. Students may take one or all of the proposed courses during their high school

#### APPLIED ARTS ON THE WEB

Please visit our website for department objectives, course videos, and additional information: http://www.newtrier.k12.il.us/ page.aspx?id=1024

#### **DUAL CREDIT (NEW TRIER AND OAKTON COMMUNITY COLLEGE) \***

Students who take the below courses may elect to receive college credit from Oakton Community College in addition to credit towards graduation from New Trier. In-order to qualify for dual credit, students must be enrolled in one of these courses for a full year and must earn a C or higher each semester. This option will be presented to students during the first week of school. \* - Indicates Oakton Community College credit can be earned by students that have successfully completed each designated course

4-Year Sequence in Applied Ar	ts		
Freshman	Sophomore	Junior	Senior
Introduction to Design Technology/Introduction to Computer Coding Fashion Construction	Interior Design Fashion Construction	Interior Design Fashion Construction	Interior Design Fashion Construction
Introduction to Architecture	Introduction to Architecture Architectural Models Architectural Studio Interior Design	Introduction to Architecture Architectural Models Architectural Studio Interior Design	Introduction to Architecture Architectural Models Architectural Studio Interior Design
Introduction to Engineering Design (PLTW)*	Introduction To Engineering Design (PLTW)* Principles of Engineering (PLTW) Civil Engineering and Architecture (PLTW)	Introduction To Engineering Design (PLTW)* Principles of Engineering (PLTW) Digital Engineering (PLTW) Biotechnical Engineering Civil Engineering and Architecture (PLTW)	Introduction To Engineering Design (PLTW)* Principles of Engineering (PLTW) Digital Engineering (PLTW) Biotechnical Engineering Civil Engineering and Architecture (PLTW)
	Automotives 1*	Automotives 1*	Automotives 2
Creative Cuisine	Gourmet	Gourmet Culinary Arts and Hospitality	Real-World Cooking for Senior Culinary Arts and Hospitality
	Human Growth & Child Development 1*	Human Growth & Child Development 1* Human Growth & Child Development 2	Human Growth & Child Development 1* Human Growth & Child Development 2
Geometry, Design, and Construction	Geometry, Design, and Construction Wood & Metal Design Skilled Trades and Emerging Careeers Research, Design, and Digital Fabrication	Geometry, Design, and Construction Wood & Metal Design Furniture Making and Design Skilled Trades and Emerging Careers Research, Design, and Digital Fabrication	Geometry, Design, and Construction Wood & Metal Design Furniture Making and Design Skilled Trades and Emerging Careers Research, Design, and Digital Fabrication

Applied Arts Department Courses and College, Career, and Exploratory Paths				
Areas of Interest	Courses Offered at Northfield	Courses Offered at Winnetka		
Architecture	Introduction to Architecture	<ul> <li>Introduction to Architecture</li> <li>Architectural Studio</li> <li>Architectural Models</li> <li>Interior Design</li> <li>Civil Engineering and Architecture (PLTW)</li> <li>Research, Design, and Digital Fabrication</li> </ul>		
Interior Design	Introduction to Architecture	<ul> <li>Interior Design</li> <li>Architectural Studio</li> <li>Architectural Models</li> <li>Wood &amp; Metal Design</li> <li>Furniture Making and Design</li> <li>Research, Design, and Digital Fabrication</li> </ul>		
Engineering	Introduction to Engineering Design (PLTW)	<ul> <li>Introduction to Engineering Design (PLTW)</li> <li>Civil Engineering and Architecture (PLTW)</li> <li>Principles of Engineering (PLTW)</li> <li>Biotechnical Engineering</li> <li>Digital Electronics (PLTW)</li> <li>Research, Design, and Digital Fabrication</li> </ul>		
Automotives		Automotives 1     Automotives 2		
Applied Design and Technology	Fashion Construction  Introduction to Architecture Introduction to Design Technology/ Introduction to Computer Coding  Geometry, Design, and Construction	<ul> <li>Introduction to Architecture</li> <li>Geometry, Design, and Construction</li> <li>Wood &amp; Metal Design <ul> <li>Furniture Making &amp; Design</li> </ul> </li> <li>Fashion Construction</li> <li>Skilled Trades and Emerging Careers</li> </ul>		
Human Growth		Human Growth & Child Development 1     Human Growth & Child Development 2		
Culinary and Hospitality	Creative Cuisine	Gourmet (Sophomores, Juniors) Culinary Arts and Hospitality (Juniors, Seniors) Real-World Cooking for Seniors		

Highlighted areas = Sequential courses

Project Lead the Way (PLTW) is a national organization that has developed, in conjunction with professional engineers, an innovative pre-engineering curriculum for high school students. Similar to Advanced Placement courses, PLTW has an end-of-course exam. If students successfully complete the course and pass requirements on the exam, they can be eligible for university credit and/or scholarship opportunities. Please see our website for more information.

# **Family and Consumer Sciences Courses**

#### **Creative Cuisine**

OPEN TO FRESHMEN PREREQUISITE: NONE .5 ELECTIVE CREDIT

This course teaches the basic techniques used in the preparation of food. Students work together in the culinary lab to plan, prepare, and cook food every day. Students learn to prepare breads, appetizers, soups, sauces, pies, eggs, poultry, and meat. Course favorites include crepes, pizza, stir-fry, and homemade pie. This course fulfills the graduation requirement for fine and/or practical arts.

#### Gourmet

OPEN TO SOPHOMORES AND JUNIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

In this cooking class, students with or without experience explore the hows and whys of preparing delicious foods. Students work together in the culinary lab to plan, prepare, and serve food every day. Student input is an invaluable component of this course, and students propose recipes of their own to add to the curriculum. Course favorites include homemade pasta, brownie parfaits, steak tacos, dumplings, and pumpkin spice lattes. In addition, current food trends, cooking methods, and nutrition are discussed. This course fulfills the graduation requirement for fine and/or practical arts.

# **Real-World Cooking for Seniors**

OPEN TO SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course is designed to prepare seniors for living independently post-high school; whether it be in a college dorm or first apartment. The focus of this course is to prepare healthy, nutritious meals on a budget within a limited amount of time. Cooking labs will consist of preparing dishes in the microwave, grill, oven and stovetop. Students will prepare and eat a variety of meals or snacks almost every day of the week. Course favorites include: Breakfast sandwiches, Chocolate Mug Cakes, Barbecue Chicken Nachos, Grilled Shrimp Alfredo, Tacos and Sushi. This course fulfills the graduation requirement for fine and/ or practical arts.

## **Culinary Arts and Hospitality**

OPEN TO JUNIORS AND SENIORS PREREQUISITE: CREATIVE CUISINE OR GOURMET 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

In this course, students learn about the multiple facets of the culinary industry, including the preparation of food, knife skills, creative presentation, daily restaurant operations, and customer relations. At the end of the year, students display their knowledge and skills by designing and operating a one-day, pop-up restaurant. In addition, students have the opportunity to earn a ServSafe Certificate, an important industry credential. Please visit our website for more information. This course fulfills the graduation requirement for fine and/or practical arts.

# **Human Growth and Child Development 1**

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course explores the social, emotional, physical, and intellectual development of young children. The first semester concentrates on families, the decision to parent and parenting readiness, conception, and prenatal development through birth; the second semester concentrates on a child's development through age 5. Guest speakers present on a variety of topics (e.g. adoption, birthing decisions) and child-centered careers (labor and delivery nurse, genetic counselor, speech therapist). Students study human development through the use of technology, including programmable baby simulators and an empathy belly. This course fulfills the graduation requirement for fine and/or practical

#### **Human Growth and Child Development 2**

OPEN TO JUNIORS AND SENIORS PREREQUISITE: HUMAN GROWTH AND CHILD DEVELOPMENT 1 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course explores the social, emotional, physical, and intellectual development of children from ages 5 to 13. The first semester concentrates on child development from ages 5 to 10; second semester concentrates on development from ages 10 to 13. Classes meet for one period three days a week and for a double period two days a week. During the double-period classes, students have the opportunity to work at the New Trier Child Care Center. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Fashion Construction**

OPEN TO FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This hands-on lab course introduces students to the world of fashion. Through an integrated approach, the course combines machine work to construct clothing as well as personal and household items with the study of textiles, history, and trends in fashion. Students complete five projects throughout the course; the final project is the student's choice. This course fulfills the graduation requirement for fine and/or practical arts.

# **Pre-Engineering** Courses

# Introduction to Engineering Design (PLTW)\*

OPEN TO: FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

Through a hands-on, design-thinking approach, students learn to think like engineers in this introductory Project Lead the Way (PLTW) pre-engineering course. The major focus of IED is on the engineering design process, introduced through activities that provide experience with brainstorming, technical sketching, computer-aided design (CAD) software techniques, and technical documentation. Students learn how to use 3D printers and scanners, laser cutters, and various other tools to bring their ideas to prototype and products to life; they create personal engineering notebooks to document their skills and designs. In addition, teamwork and technical communication skills are developed through group projects. Students who earn qualifying grades may be eligible to receive engineering college credit. This course fulfills the graduation requirement for fine and/or practical arts.

# **Principles of Engineering (PLTW)\*** levels 9 & 4

OPEN TO: SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: INTRODUCTION TO ENGINEERING DESIGN OR DEPARTMENTAL APPROVAL 1.0 MAJOR CREDIT

In this course, students learn about engineering and technology by creating solutions for actual engineering problems. They must apply their knowledge, research, and design skills to each challenge and explain their work to their peers and professional engineers. Strong emphasis is placed on group work and communication, essential skills for future engineering students. Each unit includes an in-depth group project; at the end of the year, groups work together on one large class project. The course gives students the opportunity to work on projects in a variety of engineering fields. Students who earn qualifying grades may be eligible to receive engineering college credit. This course fulfills the graduation requirement for fine and/or practical arts.

# **Biotechnical Engineering** levels 9 & 4

OPEN TO JUNIORS AND SENIORS PREREQUISITE: PRINCIPLES OF ENGINEERING AND BIOLOGY (MAY BE TAKEN CONCURRENTLY) 1.0 MAJOR CREDIT

Biotechnical Engineering is a specialized course that requires students to apply engineering skills learned in Introduction to Engineering Design and Principles of Engineering to problems in a diverse set of biotechnical engineering fields, including biomedical devices, orthopedic prosthetics, genetic engineering in agriculture and medicine, bioremediation, biofuels, and bioethics. The Biotechnical Engineering course is designed to challenge students in unstructured problem solving within a project-based format in a lab setting. This course fulfills the graduation requirement for fine and/or practical arts.

# Civil Engineering and Architecture (PLTW)\* levels 9 & 4

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: INTRODUCTION TO ENGINEERING DESIGN OR A CAD COURSE 1.0 MAJOR CREDIT

In this course, students learn about various aspects of civil engineering and architecture. Students will design and develop residential and commercial properties. To design these structures, students will use 3D software to design and document solutions for major course projects. Solutions to these unique design problems will be presented to their peers and professionals. Course topics include, but are not limited to, building components and systems, structural design, road construction and design, stormwater management, site design, utilities and services, cost estimation, and energy efficiency. Students who earn a qualifying grade may be eligible to receive engineering college credit. This course fulfills the graduation requirement for fine and/or practical arts.

# Digital Electronics (PLTW)\* levels 9 & 4

OPEN TO JUNIORS AND SENIORS PREREQUISITE: PRINCIPLES OF ENGINEERING OR DEPARTMENTAL APPROVAL 1.0 MAJOR CREDIT

Digital Electronics is a pre-engineering course for students interested in computer engineering, electrical engineering, and/ or computer science. In this course, students learn the systematic approach used by engineers to design and create the electronics we use every day. They also become familiar with the engineering design and troubleshooting techniques used in the electronics field through designing circuitry and building with fundamental components, such as transistors, gates, and flipflops. Later in the course, students design, code, and build machines controlled by programmable logic devices, such as Arduino and Raspberry Pi microcomputers. In all of these projects, students develop an understanding of how machines "think." Students who earn qualifying grades may be eligible to receive engineering college credit. This course fulfills the graduation requirement for fine and/or practical arts.

# **Technology Education Courses**

# Introduction to Design Technology/ **Introduction to Computer Coding**

OPEN TO FRESHMEN PREREQUISITE: NONE .5 ELECTIVE CREDIT

This exploratory hands-on course introduces students to two areas: computer coding and design technology. In the semester of computer coding, students use drones, robots and raspberry pies to learn fundamental computer science concepts by creating programs that solve problems, interact with users, and perform complicated calculations. While students are learning how to code they concurrently being introduced to design technology. Students will be exposed to technologies such as Autocad, Fusion 360, Laser Cutters, 3D Printers, and power tools. This course fulfills the graduation requirement for fine and/or practical arts.

# **Skilled Trades and Emerging Careers**

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: ANY APPLIED ARTS COURSE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This introductory course will expose students to established and emerging in-demand careers and occupations. Using a hands-on approach, site-visits, and guest speakers, students will work on carpentry and welding projects, electrical and plumbing systems, manufacturing projects, and green technology installations. Other careers such as, but not limited to, technology, health care, and other emerging technical professions will also be explored. Students will also have the potential to earn an industry certification prior to leaving high school. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Interior Design\***

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This project-based course introduces students to the field of interior design and the current 3D computer-aided design (CAD) software used by interior designers. Students are given design projects similar to those featured on HGTV. Units include room design (kitchens, great rooms and foyers), commercial and house redesign, and furniture and lighting design. Through class discussions, group work, hands-on experiences, guest presenters, and field trips to the Merchandise Mart, students gain an understanding of interior design concepts and encounter the challenges that interior designers face. Interior design is integrated with CAD software, design principles, construction, and presentation techniques. This course qualifies for dual credit at Oakton Community College. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Introduction to Architecture\***

OPEN TO FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

Design your own house plans like an architect! In a scaled down version of an architectural firm and studio, students will develop design skills as they imagine, discover and create 3D and 2D drawings and physical models. Students will also explore the latest industry software like Revit, Google Sketchup, Illustrator and AutoCAD to use as a tool to communicate their designs. Throughout the year, students will build their design portfolios with outside-the-box work and will eventually design their own energy efficient sustainable home. Other projects include design-thinking creative solutions for healthy environments, community gathering spaces, new experiences, and Chicago Architecture Foundation projects. This course qualifies for dual credit at Oakton College. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Architectural Models\***

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: INTRODUCTION TO ARCHITECTURE OR INTERIOR DESIGN 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course focuses on the creation of studio models through the process of developing architectural designs and responding to challenges presented by the instructor. Students learn architectural processes and develop design skills using different materials, software, technologies, and building techniques. Students are challenged to create spaces based on positive and negative space, form and function, and design principles. All methods, concepts, and technologies taught are currently utilized by architecture firms and universities. Architectural models is a course for students interested in a future that includes architecture and interior design. All work created in this course can be used for a personal portfolio. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Architectural Studio\***

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: INTRODUCTION TO ARCHITECTURE OR, FOR SENIORS, DEPARTMENTAL APPROVAL 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course introduces students to a full range of design concepts, current trends, and architectural techniques through drawing exercises, analyses of precedents, and exploration of design methods. Design skills are developed by conceptualizing and representing architectural theories through sketching, drawing on board, and abstract models. Discussions about architecture's role in culture, nature, and technology help students develop architectural vocabulary. In the second semester, students develop a "green" architectural structure, following LEED standards. All work created in this course can be used for a personal portfolio. This course qualifies for dual credit at Oakton College. This course fulfills the graduation requirement for fine and/or practical arts.

# Geometry, Design, and Construction-Team Level 9

OPEN TO FRESHMEN AND SOPHOMORES PREREQUISITE: ALGEBRA 1 MATH DEPARTMENTAL APPROVAL REQUIRED 1.0 MAJOR CREDIT IN MATHEMATICS AT LEVEL 9 1.0 MAJOR CREDIT IN APPLIED ARTS AT LEVEL 9

In this team-taught, double-period course, students learn plane geometry concepts by applying real-world construction concepts through Computer Aided Design as they create and build small projects, such as playhouses and gazebos. Throughout the course, students develop skills in teamwork, problem solving, and project management. This course covers all necessary plane geometry concepts and will prepare students to enter an Algebra 2 course in the following year. Prior experience in woodworking is not required. This course fulfills the graduation requirement for mathematics and fine and/or practical arts.

# Research, Design, and Digital Fabrication

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT IN APPLIED ARTS AT LEVEL 9

In today's world, the ability to imagine something and make it is rapidly is becoming a core skill set. The ability to work productively in a multidisciplinary team and performing human-centered design research is a must for innovation. This class will devote a semester to learn about the evolving digital fabrication field and close gaps between digital technologies, tinkering, and fabrication processes. The second semester will focus on research and design projects using design thinking, being a T-professional, and multidisciplinary teamwork. Both semesters will bring together diverse creative interests and backgrounds to learn how you can make anything through technology, research and design. Students will also learn how to curate sustainable design solutions that contributes to a healthy and supportive environment for the intended user. Cross-curricular opportunities will be encouraged. Students will maintain a portfolio that tracks their progress and will develop a final project presentation that will be shared with a professional panel.

#### Wood and Metal Design\*

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

In this course, students learn how to design and construct projects made from wood and/or metal through hands-on experiences. Students develop skills in working with both materials, such as wood turning and welding, through the use of tools that enable them to design and build a wide variety of DIY projects ranging from candlesticks to decorative boxes to furniture. The skills acquired in this course can be applied to hobbies, home improvement projects, and careers in design, architecture, and engineering. This course fulfills the graduation requirement for fine and/or practical arts.

## **Furniture Making and Design**

OPEN TO JUNIORS AND SENIORS PREREQUISITE: WOOD & METAL DESIGN OR A CAD COURSE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

In this course, students increase the depth of their skills by designing and making their own furniture projects. They learn how to create their own individual plans of procedure for design projects. Projects are developed from concepts learned in Wood and Metal Design. New technologies such as a CNC Router and CNC Plasma CAM are used in this course. This course fulfills the graduation requirement for fine and/or practical arts.

#### Automotives 1\*

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS PREREQUISITE: NONE 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

Have you ever wondered how an electric or gas vehicle works? This introductory course is designed for anyone who has general interest and curiosity in the automotive industry or intends to own and maintain his/her own vehicle. Everyday, students will work on hands-on projects that focus on: engine fundamentals, operation of automotive components, preventative maintenance, and consumer awareness. Labs and projects are broken down into working on gas vehicles, construction of electric go-kart, and small engines; students develop diagnostic techniques, fabrication skills, problem-solving skills, and teamwork skills that students will use throughout their lives. This course fulfills the graduation requirement for fine and/or practical arts.

#### **Automotives 2**

OPEN TO JUNIORS AND SENIORS PREREQUISITE: AUTOMOTIVES 1 1.0 MAJOR CREDIT AT LEVEL 9 / .5 ELECTIVE CREDIT

This course is a continuation of Automotives 1. Additional theory is provided along with a strong emphasis on hands-on lab activities. Students refine their diagnostic and repair skills in a lab setting and have the opportunity to spend additional time working on personal or extended projects. In the classroom a variety of technical topics are covered, including high performance systems, alternate fuels and energies, and fabrication. Automotive careers within the automotive field are explored and discussed. Careers examined range from technician, engineering and design, to sales and marketing. This course fulfills the graduation requirement for fine and/or practical arts.

# **APPLIED ARTS Course** Classifications

Each course has a six-digit number. The fifth digit, "3" identifies the semester(s) the course is offered; full-year courses are assigned a "3" to represent both semesters. The sixth digit indicates the level. Students who want to take a course offered at the Winnetka campus for major credit may complete the Contract for Applied Arts Major form during the first two weeks of the semester.

Fashion Construction	N121138
Fashion Construction	.W121138
Creative Cuisine	. N121238
Human Growth/Child Dev 1	.W122338
Human Growth/Child Dev 2	.W122438
Gourmet	W123338
Real-World Cooking for Seniors	.W123438
Culinary Arts and Hospitality	.W124338
Intro Design Tech/Coding	
Intro to Architecture	N141138
	.W141138
Architect Studio	.W142238
Architect Models	.W142338
Intro Engineer Design (PLTW)	N143338
Intro Engineer Design (PLTW)	.W143338
Principles Engineer (PLTW)	.W143439
Principles Engineer (PLTW)	.W143434
	.W143539
Civil Engineer/Architect (PLTW)	.W143534
Biotech Engineer	.W143639
Biotech Engineer	.W143634
Digital Electronics (PLTW)	.W143739
Digital Electronics (PLTW)	.W143734
Design/Construct-T: Geom/Design/Construct	N140239
Design/Construct-T: Geom/Design/Construct	.W140239
Wood/Metal Design	.W145238
Furniture Making/Design	.W145338
Interior Design	.W146238
Automotives 1	.W148338
Automotives 2	.W148438
Skilled Trades and Emerging Careers	.W147138
Research, Design, and Digital Fabrication	.W147439