

# 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  
Advanced Fashion Construction and Design  
Consumer Mathematics and Culinary Arts

## **Engineering: Project Lead The Way (PLTW)**

Introduction to Engineering Design  
Principles of Engineering  
Biotechnical Engineering  
Digital Electronics  
Maker Space: Industrial Design

## **Architecture, Design, and Interior Design**

Interior Design  
Introduction to Architecture  
Urban Design & Development  
Architectural Models  
Architectural Studio  
Maker Space: Industrial Design

## **Technology Education**

Introduction to Design Technology/Introduction to  
Computer Coding

Automotives 1 & 2

Geometry, Design, and Construction  
Wood & Metal Design  
Furniture Making and Design

Skilled Trades and Emerging Careers 1 & 2

### 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. It is a core value that our studios, labs, and spaces foster inclusion and belonging for all students. We like to think we are a "scaled-down version of the real thing" and are adaptive to in-demand trends and the future of work and education. **Together, students and instructors create, make, solve, build, analyze, and grow.**

All courses in the Applied Arts Department can be used to fulfill the graduation requirement for fine and/or practical arts.

### 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 career.

### APPLIED ARTS ON THE WEB

Visit our website: <http://www.newtrier.k12.il.us/appliedarts>

### DUAL COLLEGE 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. College credit is transferable to many universities. This option will be presented to students during the first week of school.

#### Dual College Credit Course options:

- Architectural Models (4 college credits)
- Architectural Studio (4 college credits)
- Automotives 1 (4 college credits)
- Urban Design & Development (4 college credits)
- Digital Electronics (3 college credits)
- Interior Design (4 college credits)
- Introduction to Architecture (3 college credits)
- Introduction to Engineering Design (4 college credits)
- Principles of Engineering (4 college credits)
- Wood and Metal Design (3 college credits)
- Skilled Trades and Emerging Careers (3 college credits)
- Introduction to Design Technology (3 college credits)

4-Year Sequence in Applied Arts			
Freshman	Sophomore	Junior	Senior
Introduction to Design Technology/ Introduction to Computer Coding			
	Interior Design*	Interior Design*	Interior Design*
Fashion Construction*	Fashion Construction* Advanced Fashion Construction and Design	Fashion Construction* Advanced Fashion Construction and Design	Fashion Construction* Advanced Fashion Construction and Design
Introduction to Architecture*	Introduction to Architecture* Urban Design & Development Architectural Models Architectural Studio Interior Design*	Introduction to Architecture* Urban Design & Development Architectural Models Architectural Studio Interior Design*	Introduction to Architecture* Urban Design & Development Architectural Models Architectural Studio Interior Design*
Introduction to Engineering Design (PLTW)**	Introduction To Engineering Design (PLTW)** Principles of Engineering (PLTW)** Biotechnical Engineering Digital Electronics (PLTW)** Maker Space: Industrial Design	Introduction To Engineering Design (PLTW)** Principles of Engineering (PLTW)** Digital Electronics (PLTW)** Biotechnical Engineering (PLTW) Maker Space: Industrial Design	Introduction To Engineering Design (PLTW)** Principles of Engineering (PLTW)** Digital Electronics (PLTW) ** Biotechnical Engineering Maker Space: Industrial Design
	Automotives 1*	Automotives 1*, 2	Automotives 1*, 2
Creative Cuisine	Gourmet	Gourmet Culinary Arts and Hospitality Consumer Mathematics and Culinary Arts	Real-World Cooking for Seniors Culinary Arts and Hospitality Consumer Mathematics and Culinary Arts
	Human Growth & Child Development 1*	Human Growth & Child Development 1*, 2	Human Growth & Child Development 1*, 2
Geometry, Design, and Construction	Geometry, Design, and Construction Wood & Metal Design Skilled Trades and Emerging Careers* Maker Space: Industrial Design	Geometry, Design, and Construction Wood & Metal Design Furniture Making and Design Skilled Trades and Emerging Careers* Skilled Trades and Emerging Careers 2 Maker Space: Industrial Design	Geometry, Design, and Construction Wood & Metal Design Furniture Making and Design Skilled Trades and Emerging Careers* Skilled Trades and Emerging Careers 2 Maker Space: Industrial Design

\* Course is a Prerequisite  
Highlighted areas = Sequential courses

Applied Arts Department Courses and College, Career, and Exploratory Paths		
Areas of Interest	Courses Offered at Northfield	Courses Offered at Winnetka
<b>Architecture</b>	Introduction to Architecture	<ul style="list-style-type: none"> <li>• Introduction to Architecture</li> <li>• Urban Design &amp; Development               <ul style="list-style-type: none"> <li>• Architectural Studio</li> <li>• Architectural Models</li> <li>• Interior Design</li> </ul> </li> <li>• Maker Space: Industrial Design</li> <li>• Furniture Making and Design</li> </ul>
<b>Interior Design</b>	Introduction to Architecture	<ul style="list-style-type: none"> <li>• Interior Design               <ul style="list-style-type: none"> <li>• Architectural Studio</li> <li>• Architectural Models</li> <li>• Wood &amp; Metal Design</li> <li>• Furniture Making and Design</li> <li>• Urban Design &amp; Development</li> <li>• Maker Space: Industrial Design</li> </ul> </li> </ul>
<b>Engineering</b>	Introduction to Engineering Design (PLTW)	<ul style="list-style-type: none"> <li>• Introduction to Engineering Design (PLTW)               <ul style="list-style-type: none"> <li>• Principles of Engineering (PLTW)</li> <li>• Biotechnical Engineering</li> <li>• Digital Electronics (PLTW)</li> <li>• Maker Space: Industrial Design</li> </ul> </li> </ul>
<b>Automotives</b>		<ul style="list-style-type: none"> <li>• Automotives 1               <ul style="list-style-type: none"> <li>• Automotives 2</li> </ul> </li> </ul>
<b>Applied Design and Technology</b>	Introduction to Design Technology/ Introduction to Computer Coding  Geometry, Design, and Construction	<ul style="list-style-type: none"> <li>• Geometry, Design, and Construction</li> <li>• Wood &amp; Metal Design               <ul style="list-style-type: none"> <li>• Furniture Making and Design</li> </ul> </li> <li>• Skilled Trades and Emerging Careers               <ul style="list-style-type: none"> <li>• Skilled Trades and Emerging Careers 2</li> </ul> </li> <li>• Maker Space: Industrial Design</li> </ul>
<b>Fashion and Sewing</b>	Fashion Construction	<ul style="list-style-type: none"> <li>• Fashion Construction               <ul style="list-style-type: none"> <li>• Advanced Fashion Construction and Design</li> </ul> </li> </ul>
<b>Human Growth</b>		<ul style="list-style-type: none"> <li>• Human Growth &amp; Child Development 1               <ul style="list-style-type: none"> <li>• Human Growth &amp; Child Development 2</li> </ul> </li> </ul>
<b>Culinary and Hospitality</b>	Creative Cuisine	<ul style="list-style-type: none"> <li>• Gourmet (Sophomores, Juniors)               <ul style="list-style-type: none"> <li>• Culinary Arts and Hospitality (Juniors, Seniors)</li> </ul> </li> <li>• Real-World Cooking for Seniors</li> <li>• Consumer Mathematics and Culinary Arts</li> </ul>
<b>Highlighted areas = Sequential courses</b>		
<p><b>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.</b></p>		

# Family and Consumer Sciences Courses

## Creative Cuisine

OPEN TO FRESHMEN  
PREREQUISITE: NONE

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, homemade pasta, and cinnamon rolls. *This course fulfills the graduation requirement for fine and/or practical arts.*

## Gourmet

OPEN TO SOPHOMORES AND JUNIORS  
PREREQUISITE: NONE

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

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

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 either consumer education or fine and/or practical arts.**

## Human Growth and Child Development 1

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

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 arts.*

## Human Growth and Child Development 2

OPEN TO JUNIORS AND SENIORS  
PREREQUISITE: HUMAN GROWTH AND CHILD DEVELOPMENT 1

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

In this studio environment, we will explore and discover many aspects of fashion, including the history of fashion trends, design, sketching, career pathways, industry environmental issues, and construction methods and techniques. Students will be engaged in hands-on clothing design and construction studio. Projects include but are not limited to: zippered pouch, multi-purpose bag, lounge pants, beanies or ear warmers, colored shirt, and a vintage redesign. *This course fulfills the graduation requirement for fine and/or practical arts.*

## Advanced Fashion Construction and Design

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: FASHION CONSTRUCTION

This studio environment will build off of prior discovery and add advanced creative projects and fashion design study. Students engage in topics such as: how culture influences fashion, the textile industry, the ethical and environmental impacts of the fashion industry, and various types of fashion careers. Project themes will include: working with the elements and principles of design, pattern drafting, creating original garments with influence from current trends and designers, working with a variety of materials, developing a personal clothing label, and choice projects. *This course fulfills the graduation requirement for fine and/or practical arts.*

## Consumer Mathematics and Culinary Arts

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

This interdisciplinary course, taught out of the Culinary Court, provides students an opportunity to apply consumer skills to real life scenarios through opportunities such as budgeting, meal planning, and grocery shopping. Additionally, students will have the opportunity to practice practical math skills through preparation of basic meals. This course will also meet the Consumer Graduation requirement.

## Engineering Courses

### Introduction to Engineering Design (PLTW)

OPEN TO: FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

An engaging, fun, real-world hands-on studio, students from all backgrounds use a design-thinking approach to think, discover, and design like an engineer. Together, we will dig deep into the engineering design process and be prompted with hands-on projects like designing a new toy or improving an existing product. The ability to problem-solve and think differently will be an asset for ANY future endeavor or study. Our approach will be to learn by doing and thinking through building and prototyping everything! Engineering CAD software, prototyping tools, laser cutters, and 3D printers will be used to create real, authentic engineered products. In addition to innovating products and projects with working parts, we will develop a mindset that enhances engineering through teamwork, creativity, and communication. **Students who earn qualifying grades may be eligible to receive engineering dual 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

Through real-world problems that engage and challenge, students explore a broad range of engineering topics, including mechanisms, the strength of structures and materials, programming and automation. Students develop skills in problem-solving, research, and design while discovering strategies for the design process, collaboration, and presentation. This hands-on inclusive environment allows students to discover how "things" work and how to make "things," in a variety of engineering fields. Themes and concepts expose students to what they will encounter in a postsecondary engineering course of study. 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 dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Biotechnical Engineering levels 9 & 4

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: INTRODUCTION TO ENGINEERING DESIGN AND BIOLOGY (MAY BE TAKEN CONCURRENTLY)

Biological and biomedical engineering careers are emerging and making the world a better place. Together we examine numerous engineering fields connected to biotechnology through hands-on projects including food engineering, genetic engineering, biomedical engineering, biological engineering, and environmental engineering. You will learn about the interconnectedness of these fields by investigating and creating biomedical devices, bioremediation, biofuels, improving human health, and discussing bioethics. For example, you will design and produce a novel food product, medical devices, environmental systems, learn from industry experts, and develop engineering solutions for your community. The biotechnical engineering course is designed to challenge students by critically thinking about current problems and designing solutions in a project-based environment. *This course fulfills the graduation requirement for fine and/or practical arts.*

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

OPEN TO SOPHOMORES, JUNIORS AND SENIORS  
PREREQUISITE: INTRODUCTION TO ENGINEERING DESIGN OR ANY COMPUTER SCIENCE COURSE OR DEPARTMENTAL APPROVAL

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 flip-flops. 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 dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Maker Space: Industrial Design

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: ANY APPLIED ARTS COURSE

In today's world, the ability to imagine something and make it rapidly is becoming a core skill set. This class will devote a semester to learn the fundamentals of industrial design through the use of design tools and digital fabrication processes. You will discover through hands-on project-based learning how to go from sketch to product. Throughout the year, students will be engaged in a Makerspace using all types of high-tech technology and power tools. The second semester will focus on student choice research and design and developmental projects. This class will bring together diverse creative interests and backgrounds to learn how you can make anything through technology, research, and design. Students will maintain a portfolio that tracks their progress and will develop a final project presentation that will be shared with a professional panel. **This course qualifies for dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

# Architecture, Design, and Interior Design Courses

## Interior Design

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

This course introduces students to the field of **interior design** and the type of thinking, planning, and development of interior environments. Interior design students are engaged in studio work and authentic design challenges where decisions are made based on human needs, aesthetics, space conditions, and potential design opportunities. Students will be challenged, just like on HGTV, to create innovative design solutions for kitchens, bathrooms, bedrooms, great rooms, vacation homes, coffee shops and more. In addition to space design, students will also design and build palette signs, chairs and custom tables. **This course qualifies for dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Introduction to Architecture

OPEN TO FRESHMEN, SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

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 college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Urban Design & Development

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

In this studio-based course, students will design future cities and land development plans. Discovery will be focused on the structure of urban planning and how policy, sustainability, economics, humanities, technology and social relationships come together in urban design. Together, we will also investigate, through hands-on projects, how existing cities, suburbs, and metropolitan areas have changed over time and ways communities are being revitalized or totally reimaged from the ground up in emerging parts of the country. Using understanding and synthesize, students will ideate and prototype new urban concepts, developments and/or planned communities. Designs will be communicated through CAD programs, design proposals and physical modeling and prototyping. **This course qualifies for dual college credit.** *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

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 qualifies for dual college credit.** *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

This course provides students with a full range of skills to be successful in the art of architecture at the collegiate level. Students will learn about current architectural trends, different techniques in both drawing, model building, analyses of precedents, and the exploration of progressive design concepts. Students are challenged to create structures based on design principles like positive and negative space, rhythm, repetition, form and function. Discussions about architecture's role in culture, nature, and technology help students develop an architectural vocabulary and a better understanding of design in society. All work created in this course can be used for a personal portfolio. **This course qualifies for dual 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

This exploratory hands-on course uses an integrated approach to computer coding, technology, and design. As a freshman computer coding opportunity, students code drones, raspberry pies, and robotics to learn fundamental computer science concepts and languages such as python. In addition to coding, students will learn different design tools and techniques that use Laser Cutters, 3D Printers, and prototyping power tools. Students who earn qualifying grades may be eligible to receive college credit. **This course qualifies for dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Skilled Trades and Emerging Careers 1

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

Have you ever wondered how to build, create or repair something in your home yourself? Everyone needs to learn about home repair! Our lab environment is inclusive to all students, and we use a hands-on approach to discover how to create residential carpentry, wiring, plumbing, manufacturing, and green technology projects. We have a goal to expose students to the DIY and career aspect of the mentioned careers. Students will also have the potential to earn an industry certification prior to leaving high school. **Open to all students, no experience required. This course qualifies for dual college credit in Residential Wiring.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Skilled Trades and Emerging Careers 2

OPEN TO JUNIORS AND SENIORS  
PREREQUISITE: SKILLED TRADES AND EMERGING CAREERS 1

Skilled Trades and Emerging Careers 2 will be an opportunity for year two students to dive deeper into projects and become team leaders and project managers. Furthermore, students will be exposed to advanced techniques and the commercial side of carpentry, electrical wiring, manufacturing, printing, and green technology. An emphasis will also be placed on emerging career opportunities and trends. *This course fulfills the graduation requirement for fine and/or practical arts.*

## Geometry, Design, and Construction-Team Level 9, 4

OPEN TO FRESHMEN AND SOPHOMORES  
PREREQUISITE: ALGEBRA 1  
MATH DEPARTMENTAL APPROVAL REQUIRED

This is a team-taught, double-period course that fulfills both math and elective graduation credit. In our studios, students learn plane geometry concepts and apply them to designing and building projects in an integrated hands-on approach connecting math to real-world application. Together we will create and make take-home furniture, a variety of useful products, art using wood/metal/concrete, and large-scaled builds such as gazebos, exhibits, and kiosks. In addition to using

power tools, 3D printers, laser cutters, and CNC machines, students also develop important 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.*

## Wood and Metal Design

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

**Make** projects from wood and/or metal through hands-on experiences in this class. Students develop skills in working with both materials, such as **wood working**, turning and tinkering, through the use of tools that enable them to design and build a wide variety of DIY projects ranging from charcuterie boards 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 qualifies for dual college credit.** *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

Learn how to design and create your own furniture! Students will develop ideas and concepts and make them using the woodshop and our CNC lab. The furniture you make can be used in your future residence. *This course fulfills the graduation requirement for fine and/or practical arts.*

## Automotives 1

OPEN TO SOPHOMORES, JUNIORS, AND SENIORS  
PREREQUISITE: NONE

Ever wonder how an electric or gas vehicle works? Do you have a curious interest in just getting to know about a car from a consumer standpoint? Do you have an interest in discovering how to repair, fix, and work on vehicles that are both electric and gas? Students from all backgrounds will work on hands-on projects that involve building an electric go-kart, working on automotive components, common repairs, routine maintenance, rebuilds, small engines and even welding. This collaborative and inclusive environment allows all students regardless of experience or knowledge to explore, play, and discover. **This course qualifies for dual college credit.** *This course fulfills the graduation requirement for fine and/or practical arts.*

## Automotives 2

OPEN TO JUNIORS AND SENIORS  
PREREQUISITE: AUTOMOTIVES 1

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.

### Northfield Campus

Fashion Construction.....	N121138
Creative Cuisine.....	N121238
Intro Design Tech/Coding.....	N140138
Intro to Architecture.....	N141138
Intro Engineer Design (PLTW) .....	N143338
Design/Construct: Geom/Design/Const-T.....	N140239
Design/Construct: Geom/Design/Const-T.....	N140234

### Winnetka Campus

Fashion Construction.....	W121138
Advanced Fashion Construction & Design.....	W121338
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 to Architecture.....	W141138
Architect Studio.....	W142238
Architect Models .....	W142338
Intro Engineer Design (PLTW) .....	W143338
Principles Engineer (PLTW).....	W143439
Principles Engineer (PLTW).....	W143434
Biotech Engineer.....	W143639
Biotech Engineer.....	W143634
Digital Electronics (PLTW) .....	W143739
Digital Electronics (PLTW).....	W143734
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 1 .....	W147138
Skilled Trades and Emerging Careers 2.....	W147238
Maker Space: Industrial Design.....	W147538
Geometry, Design, and Construction-Team.....	W140239
Consumer Mathematics and Culinary Arts.....	W146438
Consumer Mathematics and Culinary Arts.....	W146439
Urban Design & Development.....	W141238