# SABIN-SCHELLENBERG PROFESSIONAL TECHNICAL CENTER 

## 50 YEARS OF EXCELLENCE THROUGH APPLICATION




for Oregon

## 2023-2024 COURSE CATALOG

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## Take Charge of YOUR Future at Sabin-Schellenberg Professional Technical Center where students learn..."Excellence through Application"

## Professionalism Matters at SSC



## OUR VISION:

The Sabin-Schellenberg Professional Technical Center vision "Excellence through Application" is evident in all our programs. Students learn industry level skills and knowledge within a selected career area, then apply them using software, equipment and activities that mirror those in the world of work. Additionally, students in all programs practice and improve their professionalism skills such as productivity, teamwork, problem solving, and communication. Students may explore multiple career pathways by participating in a different program each semester or year, or students may choose to build skills and knowledge in one specific area of interest by taking a series of increasingly complex courses within one program of study.

## OUR MISSION:

Educating passionate leaders through creative and relevant professional experiences

## WE BELIEVE:

- All students can be successful
- Students need and want to be challenged
- Students need relevance to engage in their learning
- Sabin-Schellenberg helps students find themselves
- Students need a safe environment to learn
- Hands-on, performance-based learning fosters success for diverse learners
- Building today's and tomorrow's leaders is important work
- Sabin-Schellenberg can prepare each and every student to be career and college ready
- Career and Technical Education builds thriving communities


## WE OFFER:

- Quality instruction in 17 career programs
- Meaningful and sequential focused programs of study
- An opportunity to earn college and high school credit at the same time in our programs
- Custom-designed career training that meets the needs and standards of business, industry and today's labor force
- Internships: available in some programs at advanced levels


# College and Career-Ready with Oregon Pathways 

Sabin-Schellenberg Professional Technical Center is learning that works. SabinSchellenberg Center offers career and technical education courses where students explore career interests, develop technical skills, grow academically and gain the realworld experience necessary for high-skill, high-demand, high-wage careers. SSC programs reinforce students' use of critical creative thinking skills, problem solving and teamwork while strengthening and advancing their technical skills.

SSC courses listed in this Course Catalog are organized into six distinct Career Pathways which provide context for academic, technical, and career learning for students:

Agriculture, Food \& Natural Resources (p. 9)
Arts, Information \& Communications (p. 13)
Business \& Management (p. 20)
Health Sciences (p. 27)
Human Resources (p. 30)
Industrial \& Engineering Systems (p. 37)

Each Career Pathway section in this catalog lists activities you might like to do and a sampling of high wage, high demand careers in the Pathway to get you started. Check them out!

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## Course Prerequisites

Advancement into upper level courses is based on demonstration of proficiency in identified technical skills and application of industry-based safety and sanitation protocols. Prerequisites listed in this catalog using a course name (for example: "Prerequisites: Animal Science $1^{\prime \prime}$ ) require that the student must have demonstrated proficiency in the technical skills, drawn from the Oregon Skills Sets, that have been identified for that course by industry advisors and SSC instructors.

## Advanced College Credit

Did you know that you could earn college credit while attending High School?
Check with your instructor regarding application for college credit from one of the regional community colleges. Information will be mailed in October to students in SSC courses eligible for college credit.

## SSC has established agreements with:

- Clackamas Community College
- Lane Community College
- Linn-Benton Community College
- Mt. Hood Community College
- Portland Community College


## To apply for Advanced College Credit:

- Visit the Sabin-Schellenberg Center website for information and registration directions: https://sites. google.com/nclack.k12.or.us/college-credit/home. Complete application and registration for the ACC course by term deadlines. (Fall, Winter or Spring)


## Internships

Internships are for 11th and 12th grade students who are placed at a school or community work site based on the instructor's recommendation. The internships are for at least one grading period, but may vary based on the work site needs and the student. Students sign an agreement that lists expectations and provide their own transportation to and from work sites. Internship sites may require a criminal background check, drug screen and/or vaccinations/immunizations prior to placement.

## Credit for Proficiency

Students may earn credit in academic core subjects, e.g. science or language arts, while enrolled in SSC courses by demonstrating proficiency in the approved subject area. They will be required to submit a collection of work that documents learning experiences and shows their proficiency level. Students will earn credit and an A-F grade for demonstration of their knowledge and skills, as well as a reflection on their learning. A final presentation may be required.
Courses with approved Credit for Proficiency are marked with "CFP."

# Student Leadership Organizations 

Sabin-Schellenberg Center students may participate in organized leadership opportunities. Membership fees may apply.

## ACE Mentor

ACE Mentor program gives high school students an exciting and informative way to learn about career possibilities in Architecture, Construction and Engineering. Students work in collaborative teams under the mentorship of experienced professionals. The program's mission is to enlighten and increase the awareness of high school students to career opportunities in architecture and engineering and related areas of the design and construction industry through mentoring; and to provide scholarship opportunities for students in an inclusive manner reflective of the diverse school population.

## DECA

DECA is an international student leadership association for students interested in marketing, management, restaurant management and entrepreneurship. Participation in DECA builds self-confidence, problem-solving skills and professionalism. Students can explore careers in business, finance, entrepreneurship, hospitality and tourism, sports marketing, restaurant and quick serve restaurant management, food marketing and marketing sales and service. Students adopt the association's four core values of social intelligence, civic consciousness, leadership development and vocational understanding. DECA members participate in community service, conferences and competitions.

## FFA

The National FFA Organization is dedicated to making a positive difference in the lives of students by developing their potential for premier leadership, personal growth and career success through agricultural education. The North Clackamas FFA and Sabin-Schellenberg FFA Chapters engage students in real world learning activities ranging from exhibiting livestock to competing in a variety of leadership Career Development Events. The studentrun organization strives to develop the whole student by encouraging participation in hands-on classroom learning, community service activities and completion of a Supervised Agricultural Experience project. Emphasized activities include but are not limited to:

- Agri-Science Research Projects
- Agricultural Sales
- Forestry Management
- Job Interview Skills
- Public Speaking
- Agribusiness Management


## Robotics Club

Students interested in science, technology and robotics are welcome to join our Robotics Team. Students work in teams to build and program a robot to perform specific tasks against a field of other competitors. Design components or mechanisms, project management, programming, teamwork, cooperation and strategic thinking skills are learned. Students may qualify for college scholarships.

## Future Natural Resource Leaders

Future Natural Resource Leaders (FNRL) is a student-run leadership organization that is responsible for the Forestry program's intra curricular activities. Officers are elected and regular meetings are held using parliamentary procedures. Activities include forestry competitions, field trips and fund raisers.

## Scrub Club

Scrub Club is a student-run leadership program for Health Sciences level 1 students. Every month students gather to explore a variety of careers in the medical field. Guest speaker health care professionals share their career experiences and provide hands-on activities for students from the Health Services program. Scrub Club emphasizes career opportunities, expectations, and professional qualities that are essential for success in the medical field.

## SkillsUSA

SkillsUSA is a national nonprofit leadership organization serving middle, high school and college students who are preparing for careers in trade, technical, and skilled service occupations. This partnership of students, teachers and industry representatives work together to ensure America has a skilled work force. It helps each student excel.
SSC Programs that participate in SkillsUSA include:

- Automotive Service Technology
- Cosmetology
- Culinary Arts
- Electronics Technology
- Law Enforcement
- Manufacturing \& Engineering

Agriculture

| Pg \# | Course \# | Course Name | Grade | Frequency | Length | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10 | 180011910 | Animal Science 1 | 9-12 | 2 Per/Every other day | Year | 2.0 |
| 10 | 181011910 | Animal Science 2* | 10-12 | 2 Per/Every other day | Year | 2.0 |
| 10 | 183041910 | Animal Science 3* | 11-12 | 2 Per/Every other day | Year | 2.0 |
| 11 | 180021910 | Adv Ag Research* | 12 | 2 Per/Every other day | Year | 2.0 |
| 11 | 181481920 | Ag Intern* | 11-12 | Varies | Semester | Varies |

## Architecture \& Design

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 38 | 211021910 | Architecture \& Design 1 | $9-12$ | 2 Per/Every other day | Year |  |
| 38 | 211031910 | Architecture \& Design 2* | 2.0 |  |  |  |
| 38 | 211032910 | Architecture \& Design 3* | $10-12$ | 2 Per/Every other day | Year |  |
| 38 | 211034910 | Architecture \& Design 4* | 2.0 | $11-12$ | 2 Per/Every other day | Year |

## Automotive Service Technology

| Pq \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 39 | 201031910 | Automotive Service Technology 1 | $9-12$ | Credit |  |
| 39 | 201041910 | Automotive Service Technology 2* | $10-12$ | 2 Per/Every other day | Year |
| 39 | 201061910 | Automotive Service Technology 3* | 1.0 |  |  |
| 40 | 201032920 | Auto Upkeep | $11-12$ | 2 Per/Every other day | Year |
| 39 | 201071910 | Diesel Technology \& Maintenance* | $10-12$ | 1 Per/Every other day | Year |
| 40 | 201042910 | ASE Student Certification* | $11-12$ | 2 Per/Every other day | Year |

## Broadcasting \& Social Media

| Pq \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 14 | 110514920 | Radio Broadcasting | $9-12$ | Credit |  |
| 14 | 110515920 | Sports Broadcasting | $9-12$ | 1Per/Every other day | Semester |
| 16 | 111013920 | Journalism | 0.5 | Semester | 0.5 |
| 16 | 111012910 | Advanced Journalism* | $10-12$ | 1 1Per/Every other day | 1Per/Every other day |
| 15 | 110511910 | Broadcasting \& Social Media 1 | Semester | 0.5 | Year |
| 15 | 110512910 | Broadcasting \& Social Media 2* | 1.0 | Year |  |
| 15 | 110513910 | Broadcasting \& Social Media 3* | 2.0 | 1 Per/Every day | Year |

## Building Construction

| Pg \# | Course \# | Course Name | Grade | Frequency | Length | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | 020725910 | Geometry in Construction | 9-12 | 2 Per/Every other day | Year | 2.0 |
| 41 | 170041910 | Building Construction 1 | 9-12 | 1 Per/Every other day | Year | 1.0 |
| 41 | 170042910 | Building Construction 2* | 10-12 | 2 Per/Every other day | Year | 2.0 |
| 42 | 170043910 | Building Construction 3* | 11-12 | 2 Per/Every other day | Year | 2.0 |
| 42 | 170491410 | Building Construction 4* | 12 | 2 Per/Every other day | Year | 2.0 |

## Business \& Management/Sports Marketing

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 21 | 121041910 | Accounting 1 | $10-12$ | 1 Credit |  |
| 21 | 121042910 | Accounting 2* | 1.0 | Yer/Every other day | Year |
| 22 | 121641910 | Business \& Management 1 | $11-12$ | 1 Per/Every other day | Year |
| 22 | 121661910 | Business \& Management 2* | 1.0 |  |  |
| 24 | 120521910 | Sports \& Entertainment Marketing 1 | $10-12$ | 1 Per/Every other day | Year |
| 24 | 120522910 | Sports \& Entertainment Marketing 2* | 1 Per/Every day | Year |  |
| 22 | 121991920 | Business \& Mgmt Intern* | 2.0 | 1.0 | 1 Per/Every other day |
| 23 | 120523910 | Adv Bus/Mgmt Projects* | $10-12$ | 1 Year | 1.0 |
| 23 | 120531910 | Entrepreneurship: Business Incubator (EBI)* | $11-12$ | 1 Per/Every other day | Year |

## Cosmetology

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 31 | 191491920 | Cosmetology Concepts | $9-12$ | 1 Credit |  |  |
| 31 | 191041910 | Cosmetology 1 | $10-12$ | 2 Per/Every other day | Semester | 0.5 |
| 31 | 191491910 | Cosmetology 2* | $11-12$ | 2 Per/Every other day | Year |  |
| 31 | 191492910 | Cosmetology 3* | 2.0 | Year |  |  |

## Culinary Arts

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 25 | 160531920 | Intro: Culinary | $9-10$ | Credit |  |
| 25 | 160532920 | Intro: Culinary JS | $11-12$ | 1Per/Every other day | Semester |
| 25 | 160011910 | Culinary Arts 1* | 0.5 |  |  |
| 26 | 160571910 | Culinary Arts 2* | $10-12$ | 2 Per/Every other day | Semester |
| 26 | 160521910 | Culinary Arts 3* | 0.5 | 2.0 |  |
| 26 | 160522920 | Culinary Intern* | $11-12$ | 2 Per/Every other day | Year |

## Digital Design

| Pg \# | Course \# | Course Name | Grade | Frequency | Length | Credit |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | 102021920 | 2D Animation | $9-12$ | 1 Per/Every other day | Semester | 0.5 |

[^1]
## Digital Design

| 17 | 111551910 | Graphic Design 1 | $9-12$ | 1 Per/Every other day | Year |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 17 | 111552910 | Graphic Design 2* | $10-12$ | 2 Per/Every other day | Year |
| 18 | 111553910 | Graphic Design 3* | $11-12$ | 2 Per/Every other day | Year |
| 18 | 111541920 | Advanced Studio Intern* | $11-12$ | Varies | Semester |

## Education

| Pg\# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 32 | 191531920 | Survey of Children, Youth \& Families | $9-12$ | 1 Credit |  |
| 32 | 190511910 | Working w/Children \& Youth | $10-12$ | 1 Per/Every other day | Semester |
| 32 | 190521910 | Child \& Family Services Practicum* | 0.5 | Year | 2.0 |
| 33 | 191521910 | Elementary Education Practicum* | $11-12$ | 2 Per/Every other day | Year |
| 33 | 191512910 | Middle \& High School Practicum* | $11-12$ | 2 Per/Every other day | Year |
| 34 | 190981910 | Ed Intern: Child \& Family Services* | $11-12$ | 2 Per/Every other day | Year |
| 34 | 191981910 | Ed Intern: Elementary Education* | 2.0 |  |  |
| 34 | 191982910 | Ed Intern: Middle \& High School* | 12 | 2 Per/Every other day | Year |

## Electronics Technology

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 42 | 171011920 | Intro: Electronics Technology | $9-12$ | 1 Per/Every other day | Semester |
| 42 | 171012910 | Exploring Electronics | 0.5 |  |  |
| 43 | 171061910 | Electronics Technology 1* | $9-12$ | 1 Per/Every other day | Year |
| 43 | 171491910 | Electronics Technology 2* | $10-12$ | 1 Per/Every day | Year |
| 43 | 171492910 | Electronics Technology 3* | $11-12$ | 1 Per/Every day | Year |

## Fire Science

| Pg\# | Course \# | Course Name | Grade | Frequency | Length | Credit |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 35 | 151521910 | Fire Protection 1 | $11-12$ | 2 Per/Every other day | Year | 2.0 |
| 35 | 151522910 | Fire Protection 2* | 12 | 2 Per/Every other day | Year | 2.0 |

## Forestry \& Natural Resources

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 12 | 185021910 | Forestry 1 | $10-12$ | 2 Per/Every other day | Year |
| 12 | 185041910 | Forestry 2* | $11-12$ | 2 Per/Every other day | Year |
| 12 | 185042910 | Forestry 3* | 2.0 | 12 | 2 Per/Every other day |

## Health Services

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 28 | 140012910 | Survey of Health Sciences | $9-10$ | 1 Per/Every other day | Year |
| 28 | 140011920 | Health Care Trends | $10-12$ | 1 Per/Every other day | Semester |
| 28 | 140021910 | Health Sciences 1 | 0.5 | $11-12$ | 1 Per/Every day |
| 29 | 149992910 | Health Sciences 2: Seminar* | 12 | 2 Per/Every other day | Year |
| 29 | 149991910 | Health Sciences 2: Internship* | 2.0 | 12 | 2 Per/Every day |

## Law Enforcement

| Pg \# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 36 | 150011910 | Law Enforcement 1 | $10-12$ | 1 Per/Every other day | Year |
| 36 | 152021910 | Law Enforcement 2* | $11-12$ | 2 Per/Every other day | Year |
| 36 | 150531910 | Law Enforcement 3* | 12 | 2 Per/Every other day | Year |
| 36 | 150532920 | CSI | $11-12$ | 1 Per/Every other day | Semester |

## Manufacturing \& Engineering

| Pg \# | Course \# | Course Name | Grade | Frequency | Length | Credit |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 44 | 132031920 | Survey of Manufacturing \& Engineering | 9-12 | 1 Per/Every other day | Semester | 0.5 |
| 44 | 210091910 | Engineering Robotics 1 | 9-12 | 1 Per/Every other day | Year | 1.0 |
| 44 | 210092910 | Engineering Robotics 2* | 10-12 | 1 Per/Every other day | Year | 1.0 |
| 44 | 132032910 | Manufacturing \& Engineering 1 | 9-12 | 2 Per/Every other day | Year | 2.0 |
| 47 | 132022910 | Manufacturing \& Engineering 2 : Fab/Weld* | 10-12 | 2 Per/Every other day | Year | 2.0 |
| 47 | 132073910 | Manufacturing \& Engineering 3 : Fab/Weld* | 11-12 | 2 Per/Every other day | Year | 2.0 |
| 48 | 132074910 | Manufacturing \& Engineering 4: Fab/Weld* | 12 | 2 Per/Every other day | Year | 2.0 |
| 48 | 132081910 | Manufacturing \& Engineering: Welder Qualification* | 11-12 | 2 Per/Every other day | Year | 2.0 |
| 45 | 211062910 | Manufacturing \& Engineering 2: Machining* | 10-12 | 2 Per/Every other day | Year | 2.0 |
| 45 | 132043910 | Manufacturing \& Engineering 3: Machining* | 11-12 | $2 \mathrm{Per} /$ Every other day | Year | 2.0 |
| 46 | 132044910 | Manufacturing \& Engineering 4: Machining* | 12 | 2 Per/Every other day | Year | 2.0 |
| 48 | 132481920 | Manufacturing \& Engineering Intern* | 11-12 | Varies | Semester | Varies |

## Programming \& Coding

| Pg\# | Course \# | Course Name | Grade | Frequency | Length |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 19 | 101601920 | Intro to Programming \& Coding | $9-11$ | 1 Per/Every other day | Semester |
| 19 | 101561910 | Programming \& Coding 1 | 0.5 |  |  |
| 19 | 101562910 | Programming \& Coding 2* | $9-12$ | 1 1Per/Every other day | Year |

## Sabin-Schellenberg Programs

| Agriculture/Food \& Natural Resources | - Agriculture <br> - Forestry \& Natural Resources |
| :---: | :---: |
| Arts, Information \& Communications | - Broadcasting \& Social Media <br> - Digital Design <br> - Programming \& Coding |
| Business \& Management | - Business \& Management <br> - Sports \& Entertainment Marketing <br> - Culinary Arts |
| Health Sciences | - Health Services |
| Human Resources | - Cosmetology <br> - Education <br> - Fire Science <br> - Law Enforcement |
| Industrial \& Enyineering Systems | - Architecture \& Design <br> - Automotive Service Technology <br> - Building Construction <br> - Electronics Technology <br> - Manufacturing \& Engineering |

## AGRICULTURE, FOOD \& NATURAL RESOURCES

## Agriculture, Food \& Natural Resources

## HIGH WAGE HIGH DEMAND CAREERS

## If you enjoy...

- Working outdoors with plants, animals, or nature
- Helping others understand and enjoy their natural surroundings
- Learning about and managing our forests, parks, and wildlife.
- Growing plants or animals to supply people with food
- Observing, investigating, analyzing, or solving problems related to plants, animals or nature


## Agriculture Educator Animal Nutritionist <br> Crop Production Agronomist <br> Farm \& Ranch Manager <br> Zoologist <br> Veterinarian <br> Wildilife Biologist

Tree Trimmer \& Pruner Arborist Forester
Logging Equipment Operator Environmental Scientist Conservation Scientist

## Animal Science 1

180011910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |

Introduces the management of farm animals including recognizing animal behaviors, feeding, recognizing signs of health issues and identifying breeds. Plant science as it relates to food and landscaping is studied. Agriculture classes are taught on a 10 acre school farm that includes barns, livestock, greenhouses, an orchard and pastures. Animals and facilities are used extensively in instructional activities. Participation in the FFA organization provides students with leadership and career skills such as communication, teamwork and positive attitudes and introduces Supervised Agricultural Experience projects. A safety contract and outdoor clothing are required.

Animal Science 2
181011910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| Prerequisite: | Animal Science 1 |

Focuses on animal care and veterinary practice skills such as restraining animals, giving injections, and feeding animals. Biological systems, comparative anatomy, laboratory procedures, soil and plant sciences are also learned. Record keeping, sales and agribusiness management skills are included in the curriculum. Participation in FFA Career Development Events is encouraged. Supervised Agriculture Experience projects reinforce career skills. A safety contract and outdoor clothing are required.

Animal Science 3
183041910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| Prerequisite: | Animal Science 2 |
| College Credit: | Yes |
| CFP: | Science |

Develops a deeper understanding of food, animal and plant production cycles. Students study and conduct research in animal food and nutrition, genetics and reproduction, biotechnology, and animal health. Students present a portfolio of Technical Skills to business and industry representatives. Safety contract and outdoor clothing are required. Credit for proficiency requires completion of Animal Science 3 and Adv. Ag Research.

## 66

> Animal Science has given great academic and real-life growth opportunities, and it has made me feel more prepared for a career surrounding agriculture and animals.
> -- Shayla CHS, 11 --


Advanced Agricultural Research 180021910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| Prerequisite: | Animal Science 3 or instructor approval |
| College Credit: | Yes |
| CFP: | Science |

Students learn business management skills and computer applications used in the agriculture industry: decision making, goal setting, budgeting, financial analysis, sales, marketing, and research. Safety contract and outdoor clothing are required. Credit for proficiency requires completion of Animal Science 3 and Adv. Ag Research.

Ag Intern
181481920

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | Varies |
| Course Length: | Semester |
| Credits: | Varies |
| Prerequisite: | Animal Science 1 and instructor approval |

Students apply teamwork, communication, problem solving, time management, employment foundations, and career development. Students may apply for internship opportunities at the school farm or off site. Requires instructor recommendation, interview and approval.

66
The best part about this class is that the diverse curriculum creates future scientists, agriculturists, teachers, entrepreneurs, business leaders, and premier professionals in many career fields. Personally, my participation in this class and in the FFA has made me a better leader and taught me many career skills that I will use to become a veterinarian.
-- Isabelle CHS 12 --

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## Forestry 1

185021910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| College Credit: | Yes |

Introduces a wide range of natural resources careers. Course instruction includes how to climb trees, operate forestry related tools and equipment, including chainsaws, identify tree species, use navigation tools and read maps. Students discover the importance of balancing economic, social and environmental needs with finite natural resources. Students may participate in log rolling, axe throwing, crosscut saw, and navigation competitions. Leadership opportunities through the Future Natural Resource Leaders (FNRL) and the FFA include debate, community service, and public speaking. Coursework takes place in a classroom, outdoors, and off-site. Outdoor clothing is required.

Forestry 2
185041910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| Prerequisite: | Forestry 1 |

Continues to develop skills learned in Forestry 1, with added emphasis on theory and scientific principles. The majority of class instruction is outdoors and hands-on. Students learn from and work with natural resources and forestry industry professionals, both on and off campus. Students participate in the Sabin-Schellenberg Future Natural Resource Leaders and FFA with an emphasis on leadership and career skills. Outdoor clothing is required.

Forestry 3
185042910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 15$ |
| Prerequisite: | Forestry 2 |
| Internship: | Yes |

Advanced Forestry 3 students demonstrate learning in a supervised simulated work environment, applying previously learned techniques. Working with industry professionals, students engage in self-directed projects. Students participate as leaders in the Sabin-Schellenberg Future Natural Resource Leadership organization and FFA, focused on premier leadership, personal growth and career success. Outdoor clothing is required.

66
"Forestry showed me a lot about myself and taught me many valuable career skills in my three years with the program, all while I made some of the best memories of my life."
-- Austin MHS 12--

## ARTS, INFORMATION \& COMMUNICATIONS

## Do you like...

- Expressing ideas and feelings visually, verbally, musically, or physically
- Speaking or perfoming in front of others
- Creating through use of multiple platforms
- Using your imagination or creativity for work
- Playing music, acting, creative design, photography, writing, and/or making videos


## Arts, Information \&

 Communications
## HIGH WAGE HIGH DEMAND CAREERS

## Producer \& Director

Public Relations Specialist Technical Writer
Multimedia Artist

Art Director
Animator
Graphic Designer Web Developer

Computer Programmer Software Developer Game Developer App Developer

Radio Broadcasting
110514920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

Students produce their own radio show and broadcast over the internet. As producers, they plan their own format, chose their own music, decide their listener base, and plan how they will make a profit running their own radio show. Students use Garageband and iTunes to create their own commercials for radio while learning how to promote their station. Students will create personal podcasts. Team projects include producing an old time radio show where character voices are created. Successful completion of this course will prepare students for Broadcasting \& Social Media 1.

## Sports Broadcasting

110515920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

Working in teams, students learn play-by-play announcing using NFL Madden and NBA2K on a Playstation. Students cover home sporting events with digital cameras and learn to edit and produce a sportscast. Students will create their own sports show broadcast live out of the KNCB television studio with sports packages created by fellow sportscasters. Successful completion of this course will prepare students for Broadcasting \& Social Media 1.

I realize how much I have grown as a leader. I had to step up and take charge on a couple projects and take responsibility for issues and any mishaps that may have happened. Now with the many projects I have been a part of, leadership has been something I have continued to grow over the years and I plan on being a leader throughout the rest of my life.
-- Zack CHS 12 --


## BROADCASTING

## \& SOCIAL MEDIA

## Broadcasting \& Social Media 1110511910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Theater, Radio or Sports Broadcasting is <br> recommended |

This entry-level course offers students the opportunity to learn the basics of virtual reality while engaging with Oculus 2 headsets. Social media engages students into better understanding the world around them. The course gives students training to produce music videos, produce live soap opera pilots in the television station, and gain experience as radio news reporters for the broadcasting station. Student learn 3-D animation techniques.

## Broadcasting \& Social Media 2110512910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Broadcasting \& Social Media 1 |
| College Credit: | Yes |

Students become independent producers working with DSLR cameras, 360 cameras and audio equipment to produce films, tackle major documentaries and television shows while learning about social media and the impact on society. Virtual Reality becomes more of a focus with use of state-of-the-art equipment preparing students for careers in communications, the media and broadcasting. Projects air on the district cable television channel, YouTube channel and are submitted into national competitions for scholarships and awards.


## Broadcasting \& Social Media 3110513910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Broadcasting \& Social Media 2 |
| College Credit | Yes |
| Internship: | Yes |

Students become producers as Levels 2 and 3 work together in making a feature-length film, tackle video projects for various companies, non-profits and others. Using our green screen, students produce their own video projects, preparing them for college and careers in media. Internships are available during second semester.


Journalism
111013920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

Students are active journalists in this class, uncovering and reporting on stories that have meaning to them. This class is for those who love writing to learn how to communicate through interviews with newsmakers. Basic journalism skills enable students to understand how important an independent press truly is for a democracy. By working in teams and then as individuals, journalists will gain new skills in writing, asking questions, setting up interviews, and how that will translate into providing new information via our on-line news source, The Compass. Those interested in photojournalism, sports, or video news reports will also have opportunities to learn new techniques. Class may be repeated for credit.



Advanced Journalism
111012910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Prerequisite: | Journalism or instructor approval |
| College Credit: | Yes |

Students take on the leadership positions for the district's online newspaper, The Compass. Students in this class will become the editors in areas of the newspaper and will become members of the editorial board. Each student will learn more about student rights and responsibilities, the First Amendment, the Student Press Law Center, and ethics in journalism. Students will work independently and should expect to work outside of class while meeting deadlines. Class may be repeated for credit. Student professionalism is expected.

## 2D Animation

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

2D Animation is a course for storytellers and artists of all levels. Through digital art and design we explore the same animation techniques used by professional animators. Make a character walk, a ball bounce and more using Adobe Animate. Students will learn how to apply tweens, use panning effects, create scene transitions, and rig a character. For their final project, students develop storyboards, backgrounds, and characters as they build their own animated short film. 2D Animation students learn the tools they need to bring images and stories to life, and expand their understanding of design, digital illustration, and visual communication.

Graphic Design 1
111551910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Prerequisite: | Art is recommended |
| College Credit: | Yes |

Create visual solutions to communication problems. Students learn and use Adobe Illustrator, InDesign and Photoshop to create graphic layouts, posters, logos, signage, and a variety of other projects. Process is emphasized in this course through the exploration of a variety of design challenges replicating a design based work environment.


Graphic Design 2
111552910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Graphic Design 1 |
| College Credit: | Yes |

Students continue to explore the field of digital $\&$ graphic design by working on a combination of independent and team based projects. They will develop skills in different types of design applications using vector and pixel based formats to develop various products such as stickers, textiles, 3-D printing and web applications. Students will work with real clients and have the opportunity to interact with and receive feedback from practicing design professionals.

## 66

After participating in this program I love working with all of the Adobe programs (Photoshop, Illustrator, InDesign, and Lightroom). With the guidance of this program I have decided that this is what I want to do for my career. My education in the graphic design program helped solidify my passion for the digital arts while also preparing me with the skills to work well with others, problem solve, and meet deadlines.

Malia CHS 12--

## E DIGITAL DESIGN

Graphic Design 3
111553910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Graphic Design 2 |

Students continue to expand knowledge and skills developed in prior Digital Design classes while producing a web-based digital portfolio of quality projects and prototypes. They will take a leadership role in the Digital Design program by managing design and development teams working on real projects for clients. This year-long course will culminate with a self-determined design project that incorporates Illustrator, Photoshop and InDesign in their digital portfolio.

> I always wanted to create artwork digitally but had no idea where to start. Adobe Illustrator and Photoshop is hands down the best software to learn. You'll meet amazing clients that will use your artwork outside of school. My advice is to always ask questions of your client so that you can gain a better vision of what your artwork will be.

Advanced Studio Intern
111541920

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | Varies |
| Course Length: | Semester |
| Credits: | Varies |
| Prerequisite: | Graphic Design 2 or 3 and instructor approval |

Advanced students may apply for an internship position in the Graphic Design Advanced Studio. Teamwork, communication, problem-solving and productivity are applied in building employment and career foundations. Interns are expected to interact with clients and complete projects on time as part of a student-based enterprise that provides design services within the school, the district and surrounding community. Intern design work will become part of an online portfolio for future use in career and college applications. Requires instructor recommendation and approval.

## Intro to Programming \& Coding 101601920

| Grades: | $9,10,11$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

Start with block-based programming through Code.org, MIT Scratch and MIT App Inventor to create apps, animation and games. Learn how to make computers work together, how to use the design process, logic and debugging and how these skills relate to careers in video game, app and web development and information technology.

## Programming \& Coding 1

101561910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |

Students in Programming \& Coding 1 learn the computer programming language Python through CodeHS and apply it to problem solving with computers. Start with learning commands that translate into code, then move on to writing code. Explore careers that use programming or coding. Having background knowledge in block coding, commands and terminology is helpful, but not required.


Programming \& Coding 2
101562910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Programming \& Coding 1 |

Programming and Coding 2 focuses on further developing computational thinking skills through the medium of Android ${ }^{\text {Tw }}$ App Development for mobile platforms. The course utilizes indus-try-standard tools such as Android Studio, Java ${ }^{\text {Tw }}$ programming language, XML, and device emulators. Students collaborate to create original solutions to problems of their own choosing by designing and implementing user interfaces and Web-based databases. This course aligns with the AP CS A course; students will be prepared to take the AP Computer Science A Exam. This curriculum prepares students for many cutting-edge technology based careers, including video game development, app development, web development, and information technology. Transferrable skills developed in this course include the use of the design process, logic, debugging, and client-based communication. Related content areas include electrical engineering, digital animation, and computer aided design.


## Business \& Management

## BUSINESS \& MANAGEMENT

## If you enjoy...

- Planning and running the activities of an organization
- Working in structured environments with clear guidelines or rules
- Doing detail work with numbers or words in an organized and efficient manner
- Persuading or convincing others of your point of view
- Leading others to accomplish goals of the organization
- Marketing products or ideas to others
- Planning meals and finding interesting ways to prepare or cook food


## HIGH WAGE HIGH DEMAND CAREERS

## Accountant

Advertising Agent
Buyer
Entreprenuer
Market Research Analyst
Marketing \& Sales Manager
Publicist
Sales Representative

Food Service Manager
Purchasing Manager
Food Science Technician
Chef \& Head Cook
Meeting, Convention, Event Planner

## Accounting 1

121041910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| College Credit: | Yes |

An introduction to accounting, the language of business. Students learn how to record daily business transactions and how to prepare and analyze financial statements to determine if a business has a net income or a net loss. Students also learn about the stock market, how to use credit wisely and discover how to make sound personal financial decisions. All class work is completed online using accounting software. Recommended for students who plan to major in Business.

## Accounting 2

121042910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Prerequisite: | Accounting 1 |
| College Credit: | Yes |
| Internship | Yes |

Focuses on corporate accounting for a departmentalized business. Students expand their knowledge of accounting concepts and apply them to various situations including inventory, depreciation and recording bad debts. Students learn about stocks and bonds and how to use cost accounting to determine the cost of developing a new product. All class work is completed online using accounting software.

I took Accounting 1 \& 2 because I have a passion for math. Thanks to Mr. Nott, the best teacher by far, he helped me land my first job at an accounting firm. He's helped me so much in planning for my future in accounting and this class is definitely worth it for both practical skills and future

## careers.

-- Jennifer CHS 12 --
99

Business \& Management 1

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| College Credit: | Yes |

Introduces the career area of business and Bizmart management. Students apply business skills as employees in the SSC Student Store. All aspects of retail management are explored and applied: retail operations, retail marketing, customer service, cash handling/cashiering and business communication. Students begin to understand professional standards and how projects are managed, products developed, quality assured, and business risk handled. Proficiency in professional standards is required to continue to Level 2. Students may join DECA, a professional association for students interested in business and marketing. Students must have a valid Oregon Food Handler's Card.

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I love the business program because it has taken me to so many new places, allowed me to meet so many new people, and grown my confidence, leadership, and professionalism skills.
-- Jennifer MHS 11 -99


Business \& Management 2
121661910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Business \& Management 1, Proficiency in <br> professional standards |
| College Credit: | Yes |

Students manage a department, create strategic plans, conduct marketing research, develop promotions, order and maintain inventory and complete financial analysis. Business ownership is explored through management of the SSC Student Store, writing business plans and DECA events. Students develop their own management style and apply skills in retail and entrepreneur environment. Teamwork, communication, problem solving and productivity are professional standards applied in a management role. Participation in DECA, a professional organization for students interested in business and marketing, provides students with leadership opportunities and career skills. Students must have a valid Oregon Food Handler's Card.

## Business \& Management Intern

121991920

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Prerequisite: | Business \& Management 2 and instructor <br> approval |
| College Credit: | Yes |
| Internship: | Yes |

Advanced students may apply for internship opportunities in student run businesses on campus. Teamwork, communication, problem solving, productivity and professional standards are applied in a supervisory role in a student run business. Students apply human resources management skills including training, supervising/monitoring and evaluating Level 1 students with the support of an experienced industry professional technical assistant. Participation in DECA, a professional association for students interested in business and marketing, provides students with leadership opportunities and career skills. Students are responsible for maintaining a valid Oregon Food Handler's card. Requires instructor recommendation, interview and approval.

66

## Advanced is so student-

 led. There isn't a specific curriculum that you're going off of, it's like college and I have to figure it out myself. I'm working on a school based enterprise project about the operations, distribution and marketing sides of the student store.-- Abby G. CHS 12--
99

## Advanced Business/ Management Projects <br> 120523910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Business \& Managment 2 and instructor <br> approval |
| College Credit: | Yes |
| CFP: | Language Arts |

This course is designed for DECA officers and active DECA members to expand their knowledge and understanding of business and management through individualized curriculum. Students work individually and on teams applying standard business practices, policies and procedures, writing professional business reports, and developing business presentations using advanced DECA project guidelines. Students often collaborate with local businesses on their student projects. Students will demonstrate professional standards through DECA activities and competitions including Virtual Business Challenge, and School Based Enterprise competition as well as State and International Career-Development Conferences. Requires instructor recommendation, interview and approval.

Entrepreneurship: Business Incubator (EBI)

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Prerequisite: | Completion of or concurrent enrollment in <br> an SSC level 2 program course. |

This course is open to juniors and seniors who are in any upper level class within SSC programs. This class is for students who are self-starters and have a business idea they would like to develop. Students will learn how to develop a business plan, conduct market research and are provided the support necessary to nurture the development of an idea into a business. Business incubation is a unique and flexible way for students to work cooperatively in the business development process. Includes coaching from the instructor and industry mentors, giving and receiving feedback from class participants and visiting professionals in the field. Requires SSC instructor recommendation, application and approval.


## Sports \& Entertainment Marketing 1

120521910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |

Introduces basic marketing concepts using sports and entertainment examples. This entry level marketing course explores how companies use sports and/or entertainment to market their products and services, and how entertainment companies, teams, leagues, and events market themselves. Main topics include: promotions, advertising, sponsorship, branding and product licensing, verbal and visual communications in sports and entertainment careers such as Marketing Coordinator, Sports Agent, and Sporting Goods Merchandiser. Students acquire business presentation skills that assist with college coursework.

## Sports \& Entertainment Marketing 2

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Prerequisite: | Sports \& Entertainment Marketing 1 |
| College Credit: | Yes |

Focuses on applying marketing concepts learned in Sports \& Entertainment Marketing 1. This course allows students to experience what it would be like to work in a variety of sports and entertainment related jobs such as Athletic Directors, Event Promoter, Facilities Coordinator, Advertising and Sales, or Agent. Main topics include: sports management principles, ticket sales and promotion, sponsorship and endorsement, game/event operations, and marketing plans. Students will also participate in a Virtual Business simulation of owning and operating a stadium. Presentation skills are refined by producing business reports requiring research, writing, and formatting.


## Intro to Culinary Arts

160531920

| Grades: | 9,10 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 25(\$ 15$ if student has Oregon Food <br> Handler's Card) |

Introduces the basic cooking skills used in food industry careers as well as everyday life. Students will obtain an Oregon Food Handler's Card in this course. The Oregon Food Handler's Card is required to take additional Culinary Arts courses. Students learn basic baking skills, culinary vocabulary, recipe conversions, restaurant concepts and menu planning. Other topics taught in this course include: Food safety and sanitation, proper use of commercial kitchen equipment, knife skills and knife safety, and basic nutritional food consumption concepts.

## Intro to Culinary Arts for Juniors/Seniors

160532920

This Intro Culinary course (described above) is for Juniors and Seniors.

Culinary Arts 1
160011910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Intro to Culinary Arts, Oregon Food <br> Handler's Card |
| College Credit: | Yes |

Students will begin to build a foundation of culinary skills and knowledge by focusing on eight specific culinary units including cooking methods, sauces and plate composition, advanced baking and patisserie, garde manger, hotel and restaurant management, dining room service, nutrition, international cuisine, and catering. Within these units students will practice fundamental skills such as safety and sanititation, knife skills, weights and measures. Students learn high level skills such as costing, laminate doughs, meat fabrication and processing. Students explore many different career opportunities and develop employability skills by practising professionalism and interacting with industry professionals. This class is articulated with Lane Community College allowing students to earn advanced college credits as well as Career Related Learning Experience required for graduation.

## 66

> I love the leadership possibilities, I am passionate about baking and I enjoy competition, and participating in SkillsUSA helped me improve my communication, teamwork and leadership skills.... to be put in an environment where you have to compete as well as learn and meet new people helps you develop a better lifestyle in the long run
> -- MaKenna MHS 12 --

Culinary Arts 2

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Culinary Arts 1, Oregon Food Handler's Card |
| Internship: | Yes |

Students build on the fundamentals of food production, meat fabrication, menu development, professionalism, time management and safety and sanitation in a full service deli/diner and catering company open daily for breakfast and lunch. Students will rotate through the six stations in Verte Deli learning customer service and point of sale systems; desserts and pastries, food preparation, produce daily lunch specials, and work multiple stations cooking hot food from scratch to-order. Students will also learn high volume food production and presentation as they cater events in the school district and around the community. Students will be exposed to guest speakers from industry and postsecondary education and field trips as they explore careers in the food and hospitality industry. Students are required to maintain a valid Oregon Food Handler's Card.


Culinary Arts 3
160521910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Culinary Arts 2, Oregon Food Handler's Card |
| College Credit: | Yes |
| Internship: | Yes |

In a management role, students are responsible for the training and supervision of Level 2 students as they progress through the various stations in the daily operation of Verte Deli. Level 3 students assist with special projects such as large scale catering events and the daily flow of kitchen operation as well as the development and completion of a senior project focused on community service and/or improving the educational experience of future students taking the class. Students are required to maintain a valid Oregon Food Handler's Card.

Culinary Intern
160522920

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | Varies |
| Course Length: | Semester |
| Credits: | Varies |
| Prerequisite: | Culinary Arts 1, Oregon Food Handler's Card <br> and instructor approval |
| College Credit:: | Yes |
| Internship: | Yes |

Advanced students may apply for internship positions working in the on-campus Culinary Arts food service facilities. Teamwork, communication, problem-solving, and productivity are applied in building employment and career foundations. Students are required to maintain a valid Oregon Food Handler's Card.

## 66

My parents are very proud that $I$ took culinary and can show them how to cook different recipes and can cook at home for them.
--Delores MHS 12 --

## HEALTH SCIENCES

## HIGH WAGE HIGH DEMAND CAREERS

Dentist<br>Dental Hygienist<br>Pharmacist<br>Physician \& Surgeon<br>Physician's Assistant<br>Registered Nurse<br>Nurse Practitioner<br>Veterinarian

## If you are interested in...

- Reading and learning about medical problems
- Investigating or analyzing scientific questions
- Learning how the body works
- Preventing or correcting health related issues
- Using science to solve medical problems
- Teaching and working with people to take care of their health

2020- Oregon Employment Department

## Survey of Health Sciences

140012910

| Grades: | 9,10 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 20$ |

Focuses on helping students decide if they want to pursue a career in the medical field. Units include history of healthcare, general overview of human body systems, introduction to vital signs, medical terminology, safety issues, medical asepsis, proper use of medical equipment and aging. Professionalism is emphasized. Students may not enroll in Survey of Health Sciences and Health Care Trends concurrently. Recommended for students planning to take Health Sciences 1.

Health Care Trends
140011920

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 10$ |

Introduces students to different health care careers across the medical field. Topics include introduction to lifespan development, medical ethics, patient safety, emergency preparedness and professional communication. Guest speakers from the professions provide information on the latest trends in the field. Students may not enroll in Health Care Trends and another Health Services course concurrently.

Health Sciences 1
140021910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 20$ |
| Prerequisite: | Survey of Health Sciences recommended |
| College Credit: | Yes |

Develops knowledge of medical terminology, human body structures and functions, microbes and diseases, and basic health care skills such as assessing vital signs (pulse, respiration, blood pressure). Builds a knowledge base that supports all levels of further medical study. Health care professionals and guest speakers visit the classroom and share their journey and career pathway options.


Health Sciences 2: Internships

149991910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every day |
| Course Length: | Year |
| Credits: | 4 |
| Fee: | $\$ 20$ |
| Prerequisite: | Health Sciences 1 and instructor approval |
| College Credit: | Yes |
| Internship: | Yes |

The first eight weeks of this course focuses on patient care skills needed at internship sites (i.e. bathing, bed making, feeding, vital signs, etc.). Students further explore career choices in-depth. Students are assigned to locations in the community for specific clinical internship experiences based on their career choice: physical therapy, surgical technology, diagnostic imaging, dentistry, nursing, obstetrics, veterinary medicine, respiratory therapy at multiple health care sites. Students may have opportunities to complete industry certificates such as Certified Nursing Assistant 1, Pharmacy Tech. and/or EKG Tech. Actual cost of industry certifications will be the responsibility of the student. Additional immunizations, criminal background check and drug screen are required by internship sites.

Health Sciences 2: Seminar 149992910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 20$ |
| Prerequisite: | Survey of Health Sciences or Health <br> Sciences 1 |
| College Credit: | Yes |

This course focuses on health care skills: CPR and First Aid certification, care and prevention of injuries, and wellness. Students learn specific skills: measuring vital signs, administration of First Aid and CPR, AED use, splinting, taping and casting. Whole body wellness, the anatomy and physiology of injury, and injury rehabilitation methods are explored.


## Human <br> Resources <br> HIGH WAGE HIGH DEMAND CAREERS

Hairstylist

Manicurist/ Pedicurist
Cosmetologist
Skincare Specialist

Special Eduction Teacher
Social Worker
Teacher
Play Therapist

## Firefighter <br> Police Dispatcher <br> Fire Dispatcher <br> Ambulance Dispatcher

Correctional Officer \& Jailer
Defense Attorney
Federal Law Enforcement
Patrol Officers
Probation Officer

## HUMAN RESOURCES

## Do you enjoy...

- Helping others learn new things or acquire information
- Providing help or services to others
- Exploring how children, teens or adults learn new information or skills
- Learning about the law and our legal system
- Studying or assisting in family relations, child care, or human development
- Understanding how society works together and solves problems
- Helping people when they are in crisis or under stress

Cosmetology Concepts
191491920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 15$ |

Introduces the field of cosmetology by exploring nail technology, esthetics and hair design. Students learn color theory, nail care, nail art, thermal and long hair styling, esthetics and makeup techniques. Recommended prerequisite to Cosmetology 1.

Cosmetology 1
191041910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Cosmetology Concepts recommended |

Focuses on basic instruction and hands-on training in hair design (haircutting, styling, coloring and highlighting), esthetics (skin care and makeup) and nail technology (manicures and pedicures). Course includes lectures, lab and clinic time. Students practice services on mannequin heads and classmates. Students will explore the cosmetology industry with these activities: guest speakers and presentations from industry professionals and beauty schools, Guest Days (students practice on a guest), and Theatrical Hair Day. Students earn hours toward licensure that may transfer to local beauty schools.


| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Cosmetology 1 |
| College Credit: | Yes |

Further develops the study of hair design and theory (coloring and permanent waving), esthetics and nail technology, practical application. Important management skills including client relationships, how to build a clientele, professional behavior, customer service, product knowledge and bookkeeping are introduced and practiced in a salon setting. Quarterly field trips are taken to local beauty schools. Industry professionals are periodically invited as guest speakers. The Salon is open to the public once a week. Students earn hours toward licensure that may transfer to local beauty schools.

Cosmetology 3
191492910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Cosmetology 2 |

This course is geared toward students who wish to pursue a career in Cosmetology. Students will refine skills and techniques learned in Cosmetology 2. Salon management skills and marketing are learned. Quarterly field trips are taken to local beauty schools. Students at this level have a larger responsibility in the management of the salon. The salon is open to the public once a week. Students earn hours toward licensure that may transfer to local beauty schools.

## Survey of Children, Youth, \& Families

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |

This course is for students interested in careers with children, youth, and families. Through hands-on activities such as caring for Reality Infants, investigating and creating toys, and developing story-based activities for kids, students explore childhood development and care-based careers.


> 66
> I have always wanted to work with kids in some way, shape, or form but this class gave me a real eye-opener and now I can never think of doing any other career besides becoming a teacher or social worker.

191531920

Working with Children \& Youth

190511910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |

Students assist in a lab preschool setting at the Early Learning Center with 3, 4 and 5 year olds while exploring human development, professionalism, guiding behavior, health and safety, learning environments and preschool curriculum. These concepts support working with children and youth, birth through adolescence. Students have an opportunity to receive certification for an Oregon Food Handler's Card. This course offers certification in the Oregon Registry for Childcare and Education at step 7. This course is the prerequisite to Practicum level classes. Preschool, Practicum, and Internship placements are subject to district and state guidelines for employees including immunizations, criminal background checks, and/or drug screening.

Upon successful completion of Working with Children \& Youth, select one of three practicum experiences: Child \& Family Services, Elementary Education, or Middle \& High School.


## Child \& Family Services Practicum

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Working w/Children \& Youth and instructor <br> approval |

Building on the experience gained in Working with Children and Youth, this course is a combination of time with a mentor in an early-childhood setting and classroom seminars at Sabin. Students will deepen their understanding of educational practices and careers working with children and families from birth to grade 3. May be repeated for credit. Preschool, practicum, and internship placements are subject to district and state guidelines for employees including immunizations, criminal background checks, and/or drug screening.

## Elementary Education Practicum

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Working w/Children \& Youth and instructor <br> approval |

Building on the experience gained in the Working with Children and Youth course, this course is a combination of time with a mentor at elementary school and classroom seminars at Sabin. Students will deepen their understanding of educational practices and careers working with elementa-ry-school-aged children. May be repeated for credit. Preschool, practicum, and internship placements are subject to district and state guidelines for employees including immunizations, criminal background checks, and/or drug screening.

Middle \& High School
Practicum
191512910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Working w/Children \& Youth and instructor <br> approval |

Building on the experience gained in the Working with Children and Youth course, this course is a combination of time with a mentor at a middle or high school and classroom seminars at Sabin. Students will deepen their understanding of educational practices and careers working with adolescents. May be repeated for credit. Preschool, practicum, and internship placements are subject to district and state guidelines for employees including immunizations, criminal background checks, and/or drug screening.

## 66

> I like the community that was built. Our class became a small family and I can't imagine my life without these people. I love working in a classroom setting and with kids.
> --Hannah MHS 11 --

99


## Ed Intern

| Child \& Family Services | 190981910 |
| :--- | :--- |
| Elementary | 191981910 |
| Middle \& High School | 191982910 |


| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Corresponding Practicum course and <br> instructor approval |
| Internship: | Yes |

Building on the experience gained in the practicum courses, students deepen their knowledge working with children, youth and families in educational programs. This experience requires students to work independently to set their own goals/learning outcomes, communicate with both mentor teacher and advisor, and gather evidence to demonstrate learning. Preschool, Practicum, and Internship placements are subject to district and state guidelines for employees including immunizations, criminal background checks, and/or drug screening.

I took this class because I wanted to experience something new and work with people. I'm considering teaching post-secondary. My advice to eighth graders thinking about trying the education program at Sabin? DO IT!!! You won't regret it!
-- Carmen MHS 12 --

## Fire Protection 1

151521910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 20$ |
| College Credit: | Yes |

Introduces students to the world of fire fighting: history of fire science, safety and health, fire department communication, Personal Protective Equipment, building construction and fire behavior, fire control, fire prevention and emergency medical care. Students will explore taking a hydrant, pulling hose, tying knots and raising ladders. Students can earn Federal Emergency Management Agency (FEMA) certifications and First Aid and CPR certification. Students learn about different careers within Emergency Services. Safety contract required and ability to wear Personal Protective Equipment (PPE) weighing 50 pounds is required.


Fire Protection 2
151522910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 20$ |
| Prerequisite: | Fire Protection 1 |
| College Credit | Yes |

Students will perform in a leadership role as a company officer and further develop the skills learned in Fire Protection 1. This course will explore fire fighting tactics, strategies, and fire service hydraulics. Careers in the Fire Protection industry will be investigated. Students will lead teams of Fire Protection 1 students and assist in their skill development. Students can earn Federal Emergency Management Agency (FEMA) certifications and are re-certified in First Aid and CPR. Safety contract and ability to wear Personal Protective Equipment (PPE) weighing 50 pounds is required.

Law Enforcement 1
150011910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |

Introduces the justice system through classroom lectures and scenario-based exercises. Topics covered: U.S. Constitution, amendments and rulings, landmark criminal justice laws, police history, law enforcement issues, and the justice system from arrest through trial. Courtroom procedures and careers in the criminal justice system are also covered. Students are also introduced to defensive tactics, physical training and arrest techniques. Proficiency in three handcuffing techniques is required to advance to level 2 .

Law Enforcement 2
152021910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Law Enforcement 1 |

Focuses on the development of basic patrol procedures, advanced defensive tactics, and multiple arrest techniques. Other areas of focus are patrol operations, investigation, special situations, exploring juvenile corrections, introduction to adult corrections, and private security. Proficiency in processing and diagramming a scene is required to advance to level 3 .

Law Enforcement 3
150531910


| Frequency: | 2 periods -- every other day |
| :--- | :--- |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Law Enforcement 2 |

Advanced students examine and apply current trends in Crime Scene Investigation (CSI). Students learn how to document investigations in writing and the utilization of technical resources, philosophies, theories and concepts of prevention and apprehension, physical training and suppression of criminal activity.

Crime Scene Investigation
150532920

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 30$ |

Students examine and apply current trends in Crime Scene Investigation (CSI). Students learn how to document investigations in writing and the utilization of technical resources.


## Industrial \& Engineering Systems HIGH WAGE HIGH DEMAND CAREERS

## Architect

Civil, Industrial \& Mechanical Engineer Cartographer

Automotive Service Technician
Diesel Engine Specialist Mechanic

Electrical \& Electronics Engineer
Computer Programmer Industrial Engineer

Mechanical Engineer
Computer-Controlled Machine Tool Operator Machinist

## Sheet Metal Worker

Structural Metal Fabricator \& Fitter Welder

Carpenter
Plumber/Pipefitter Cement Mason

## ARCHITECTURE \& DESIGN

## Architecture \& Design 1

211021910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- Every other day |
| Course Length: | Year |
| Credits: | 2 |
| College Credit: | Yes |

Discover how hand drawing, 3D modeling and 3D printing are used by architects, engineers and other designers to conceptualize and document their new products (buildings, consumer products, bridges, etc). Skills in AutoCAD, Revit and Inventor are then applied to students' own design projects.

## Architecture \& Design 2

211031910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- Every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Architecture \& Design 1 |
| College Credit: | Yes |

Expand proficiency in the use of industry software as well as gain an understanding of design and construction through large scale, challenging, complex and sophisticated architectural or engineering projects. Create working drawings, 3D models, computer-generated renderings and physical models of original designs.


Architecture \& Design 3
211032910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Architecture \& Design 2 |

Explore advanced CAD tools and techniques (Revit3D or Inventor). Develop, visualize and present designs. Professionals from the Architecture, Industrial Design or Engineering fields mentor students.

Architecture \& Design 4
211034910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Architecture \& Design 3 or instructor approval |

Take a deep dive into architectural design. Choose a building type (residential or commercial) you are interested in designing, and develop this building design from early sketches to final presentation models. Use skills developed in earlier courses to work independently on a complex project and collaborate with local professionals to develop a portfolio for application to Architecture school and/or a starting position in the CAD industry.

## 66

> I have been taking the architecture and design class all four years. The class has helped me find my passion for CADD and has set me up with enough knowledge and skill to put me ahead going into college.

-- Cody PHS 12 --

## Automotive Service Technology 1201031910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 40$ |
| College Credit | Yes |

Introduction to tools, shop equipment and vehicle lifts. Focuses on basic skills of automotive mechanics. Students learn the fundamental theories and systems of the internal combustion engine: electrical, fuel and ignition. Braking systems and preventive maintenance are covered. Safety is taught and tested in the classroom.

## Automotive Service Technology 2201041910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Auto Service Tech 1 |
| College Credit: | Yes |
| Internship: | Yes |

Continue to develop skills learned in AST 1: use of automotive tools, equipment and auto systems. Students will perform maintenance and repair of brakes, steering, suspension, electrical systems and drivability. Safety is taught and tested in the classroom.

## Automotive Service Technology 3201061910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Auto Service Tech 2 |
| College Credit: | Yes |

Further develops the skills learned in AST 1 and AST 2. Students perform vehicle light maintenance and repair for clients. Students can earn industry certifications from automotive factory programs: Ford, Subaru, Toyota and others. Safety is taught and tested in the classroom. Students will be in a peer leadership role assisting Level 2 students with skill development.

DieselTechnology \& Maintenance 201071910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 40$ |
| Prerequisite: | AST Level 2, Valid Driver's License <br> recommended |
| College Credit | Pending |

This course is for the student who has two years of basic light maintenance and repair in Automotive Service Technology and is interested in expanding their knowledge in medium and heavy duty diesel technology and maintenance. Students will train in the repair and upkeep of the Freightliner diesel engine using Frieghtliner \& Volvo trucks, industry scan tools and trainers for hands-on experience. Units of study include safety and shop skills, preventive mainteneance and inspection, troubleshooting and repair in diesel engines, heavy duty tires and wheels, air brakes, steering and suspension, and starting and charging systems. Additionally, students can earn industry certificates in Freightliner Systems as well as ASE Medium-Heavy Trucks. May be repeated for credit.

## Upon successful completion of Automotive

 Service Technology level 2, students choose one of two skills pathways to follow: AST3 or Diesel Service Technology. Students who successfully complete AST3 their 3rd year may choose from ASE certification or Diesel Service Tech. year 4. Students who successfully complete Diesel Service Tech. their 3rd year may choose from AST3 or ASE certification year 4.

Automotive Upkeep
201032920

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 20$ |
| College Credit: | Yes |

Introduces automotive care and repair. Students learn how an automobile operates and how to buy an automobile. Students will also learn basic automotive maintenance in these areas: auto care \& cleaning, fluid level check, electrical, lubrication, cooling, exhaust, ignition and fuel systems, suspension and steering systems, tires and transmission. Common problems and roadside emergencies will be covered.


## Automotive Service Excellence Student Certification

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite | AST Level 3, Application and Interview. Valid <br> Driver's License Recommended |
| College Credit: | Pending |

Automotive Service Excellence (ASE) Student Certification is the first step in building a career as a service professional in the automotive industry and provides the student with their first industry certification through the National Institute for Automotive Service Excellence. Students will work independently through a self-guided program to complete ASE skills and knowledge assignments in preparation for the Maintenance Light Repair Certification from ASE. Industry and program mentorship provided while students apply skills in-house and field placements. This certification opens up employment opportunities and advanced placement in college automotive programs. Additional certification opportunities may be available.

## 66

Do what you're passionate about. Once you come into Level 1 it's kind of difficult, but once you accept that it's something you want to do you'll love it. Level 1 is a lot about safety, but Level 2-3 you're out in the shop and hands on training.
-- Nathan G. CHS 11 --

## BUILDING CONSTRUCTION

## Geometry in Construction

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |

This course is for the student who wants to learn math through a more hands-on aproach. We make connections between geometry and construction through group and individual projects. This course is also for students with career interests in architeture, design, or construction. Examples of individual projects students have worked on include a $3 / 4$ " balsa townhouse model, mini-box, step stool, and storage chests. Larger group work has involved service projects in collaboration with Clackamas County Veterans Village and Camp Westwind. Taught by a math teacher and a construction teacher, students earn one Geometry credit and one CTE credit in Building Construction 1 ..

## Building Construction 1

170041910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 periods -- every other day |
| Course Length: | Year |
| Credits: | 1 |

This is a Construction-only option for students interested in building, making and design without Geometry \& Data Reasoning math credit. Learn to use tools and equipment while making projects such as a $3 / 4$ " balsa townhouse model, mini-box, step stool or storage chest. Explore career pathways in the architecture, construction and design while interacting with industry professionals on community service projects.

Building Construction 2
170042910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 25$ |
| Prerequisite: | Geometry in Construction or Building Constr. 1 |

Expand carpentry skills in a hands-on learning environment. This course is a multi-level class and is taught as a rotating curriculum between residential construction and systems, interior and finish carpentry, cabinetry, and furniture making. Individual projects can include cutting boards, bookshelves, and boxes. Group projects include cabin renovation at Camp Westwind.


## Building Construction 3

170043910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Building Construction 2 |

This course is for the student interested in a career in the construction or architecture industry, or wanting to expand their carpentry skills in a hands-on learning environment. This course is a multi-level class and is taught as a rotating curriculum between a focus on residential construction methods and systems. A focus on interior and finish carpentry, cabinetry, and furniture making.

## Building Construction 4

170491410

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Prerequisite: | Building Construction 3 |

This course is for the student interested who is ready to take on a leadership role in the program while exanding their carpentry skills through independant learning. This course is a multilevel class and is taught as a rotating curriculum between a focus on residential construction methods and systems. A focus on interior and finish carpentry, cabinetry, and furniture making.


## Intro to Electonics Technology 171011920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 15$ |

In this semester class students will learn the basic principles and processes used in the high tech electronics assembly industry. Using safety, assembly and soldering skills students follow written directions and use electronic components to build the following projects: games, buzzers, light displays and prototype circuits. This course is a prerequisite for Electronics Technology 1.

## Exploring Electronics

171012910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period-- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 30$ |

In this year long class offers students the opportunity to build more projects as they learn the basic principles and processes used in the high tech electronics assembly industry. Using safety, assembly skills and soldering skills students follow written directions and use electronic components to build the following projects: games, buzzers, power supply, strobe light and prototype circuits. This course is a prerequisite for Electronics Technology 1.



Electronics Technology 1
171061910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Intro to Electronics Technology, Exploring <br> Electronics or Engineering Robotics 1 |
| College Credit | Yes |

For students who have successfully completed Intro to Electronics Technology, Exploring Electronics or Engineering Robotics 1. Focuses on electronics theory, semiconductors, amplifier systems, digital systems and circuit board design. Computer circuit simulation is emphasized along with principles, processes, applications and skills needed in high tech industries. Safety is taught and tested throughout this course.

## Electronics Technology 2

171491910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Electronics Technology 1 |
| College Credit: | Yes |

Further developing skills, students design and fabricate products using engineering formulas learned in Electronics Technology 1. Products are documented using the engineering standards of written, theoretical circuit descriptions. Computer circuit simulation and circuit board design are emphasized along with a Technical Skills portfolio that is presented to industry representatives.


Electronics Technology 3
171492910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 1 period -- every day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 30$ |
| Prerequisite: | Electronics Technology 2 or instructor <br> approval |
| College Credit: | Yes |

This advanced robot course provides challenging and fun opportunities to put prior coursework into application. Using a robot platform students create electronic control systems for motion control, sensory inputs and microprocessors to embed artificial intelligence. Using sound recognition and optical output systems, students experiment with autonomous systems. The final product is a student-designed, autonomous robot that students take home.

66

> I like that I've become better at problem solving...for instance I had a project recently with two boards connected and one wasn't working. I've learned; stretch everything out, break it down, and pinpoint exactly what's going on.

-- Devin MHS 12 --

## MANUFACTURING ENGINEERING

## Engineering Robotics 1

210091910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 20$ |

In this course students will be introduced to the basics in manufacturing and electronics skills. Working with circuit boards students will learn to utilize basic electronic components, soldering and assembly circuit boards, wiring the motors and switches to control the robotic arm functions. Students will be working with their hands to set up and operate a variety of equipment used to manufacture components that will help them design, assemble and build a robotic arm that they will take home after completing this course. This course is a prerequisite for Electronics Technology 1 or Manufacturing \& Engineering 2: Machining.

## Engineering Robotics 2

210092910

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Year |
| Credits: | 1 |
| Fee: | $\$ 30$ |
| Prerequisite: | Engineering Robotics 1 |

Explore Arduino programing, breadboarding, solidworks CAD program and build a kit robot. Students will learn to program an arduino with breadboard and the kit robot. Students will learn solidworks CAD program to create a 3D model, assemble the 3 D model in the program and earn college credit.


Survey of Manufacturing \& Engineering

132031920

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 1 period -- every other day |
| Course Length: | Semester |
| Credits: | 0.5 |
| Fee: | $\$ 20$ |

This project based class exposes students to arc welding processes, basic metal working, computer aided drafting and basic machine skills. Five hands-on projects are created from design to product. Students begin career readiness for shop helper and material handlers. Course is not a prerequisite for Manufacturing \& Engineering Level 1.


## This is the first course for students interested in the Manufacturing \& Engineering Pathway

Manufacturing \& Engineering 132032910

| Grades: | $9,10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| College Credit: | During welding semester |

In this year-long course, students explore the manufacturing industry, developing skills in machining and welding. During the machining unit students learn to machine on the manual mill, engine lathe, layout and blueprint reading. Students will create a machinist hammer, C-clamp and center punch. In the Welding unit students will learn to develop skills in 5 different welding processes, metal working, equipment operation, blueprints reading with welding symbols and earn a OSHA 10 safety certification. There is no prerequisite for this course.

# MANUFACTURING ENGINEERING - MACHINING 

Upon successful completion of Manufacturing \& Engineering level 1, students choose one of two skills pathways to follow: Manufacturing \& Engineering Machining or Manufacturing \& Engineering Fabrication \& Welding for levels 2, 3 and 4 in the program.


Manufacturing \& Engineering 2: 211062910 Machining

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering 1 or <br> Engineering Robotics 1 |

Expand knowledge of manual lathe and mill operations during your second year in the machine shop. Design, machine, and manufacture finished products, selected from a menu of

66
I plan to be an Airframe mechanic in the Airforce and the manufacturing and welding classes got me interested in this career. Classes are really helpful and you learn a lot of hands on skills. -- Harrison RPHS 10
projects, such as a 123 block or a project of their own design. Students will explore CNC (Computer Numerical Control) in learning how to set-up and operate a CNC mill through projects. Safety is emphasized and tested throughout this course.

## Manufacturing \& Engineering 3: 132043910 Machining

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering 2 Machining |
| College Credit: | Yes |
| Internship: | Yes |

Further explore the work of a precision machinist. Students complete self-paced projects and have an opportunity to learn and use MasterCam, read G\&M Code, and generate G\&M code that is used in industry. Projects include complex parts as well as assemblies that require the use of Computer Numerical Controlled (CNC) automated machines. Students will complete the course work required to earn a certification from the Titans of CNC's online CNC mill course. Safety is emphasized and tested throughout this course.


## MANUFACTURING ENGINEERING - MACHINING



Manufacturing \& Engineering 4: 132044910 Machining

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering 3 Machining |
| Internship: | Yes |

Students explore and work with more detailed parts and projects in the engineering lab or machine shop. Self-paced projects include advanced application of CNC programming, lathe and mill operations. Students will complete the course work required to earn a certification from the Titans of CNC's online CNC lathe course. Safety is emphasized and tested throughout this course.

## Manufacturing \& Engineering <br> 132481920 Intern

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | Varies |
| Course Length: | Semester |
| Credits: | Varies |
| Prerequisite: | Manufacturing \& Engineering 3 and <br> instructor approval |
| Internship: | Yes |

Advanced students may apply for internship opportunities in our Manufacturing \& Engineering facilities. Teamwork, communication, problem solving, and productivity are applied in building employment and career foundations. Students will work with industry partners. Students must have successfully completed or be simultaneously scheduled in Manufacturing \& Engineering 3 or 4. Requires instructor recommendation, interview and approval.

# MANUFACTURING ENGINEERING - WELDING 


Upon successful completion of

| Manufacturing \& Engineering level 1, |
| :--- |
| students choose one of two skills pathways |
| to follow: Manufacturing \& Engineering |


| Machining or Manufacturing \& Engineering |
| :--- |
| Fabrication \& Welding for levels 2, 3 and 4 |
| in the program. |
| Manufacturing |
| \& Engineering |
| level 1 |


| Manufacturing |
| :--- |
| \& Engineering |
| Machining |
| pg 45-46 |

## Manufacturing \&

132022910

## Engineering 2: Fab/Weld

| Grades: | $10,11,12$ |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering 1 |
| College Credit: | Yes |
| Internship: | Yes |

Students will focus on industry readiness skills in 5 areas of arc welding and high level fabrication skills. SMAW (Stick), GMAW (wire feed), FCAW (dual shield) and GTAW (tig) welding using steel and aluminum. Advanced fabrication techniques, layout and shop equipment will be the focus of this project based class. American Welding Standards will be used during this class. Safety will be taught and tested in this course.


Manufacturing \&
132073910 Engineering 3: Fab/Weld

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering Fab/Weld 2 |
| College Credit: | Yes |
| Internship: | Yes |

Students expand their abilities while learning how to design and manage projects throughout the year. Students will learn repair techniques and production welding. This class uses all shop equipment as well as machine tools to fabrication parts, projects and tooling. Community projects will be the focus of this class. Students will also design and fabricate a final project using techniques and skills learned through levels 1, 2 and 3 .

## Manufacturing \& <br> Engineering 4: Fab/Weld

132074910

| Grades: | 12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manufacturing \& Engineering Fab/Weld 3 |
| College Credit: | Yes |
| Internship: | Yes |

Design and fabrication of projects will be the main focus of this class. Students will work independently, focusing on all aspects of the manufacturing process. Students will apply skills of design, blueprints and welding knowledge to design and build self-guided projects. American Welding Society standards will be used and expanded upon during this class. Safety is taught and tested throughout this course.

# MANUFACTURING ENGINEERING - WELDING 

## Manufacturing \& Engineering Welder Qualification

132081910

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | 2 periods -- every other day |
| Course Length: | Year |
| Credits: | 2 |
| Fee: | $\$ 40$ |
| Prerequisite: | Manuf. \& Engineering Fab/Weld 2, <br> application \& Interview |
| College Credit: | Yes |

Students seeking to participate in the Welder Qualification class must meet established criteria in order to apply and interview at the end of their Level $2 \mathrm{Fab} / \mathrm{Weld}$ year. Accepted candidates work through a self-paced full year program. Students work toward an American Welding Society (AWS) welding certification. Students will use the AWS d1.1 Structural steel code book as they work through welding certification. Upon certification students have met industry standards and are ready for the workplace. Students who successfully fulfill requirements in the first year of the Welder Qualification class may reapply for a 2nd year to pursue an additional AWS Qualification. May be repeated for credit.

## Manufacturing \& Engineering Intern

| Grades: | 11,12 |
| :--- | :--- |
| Frequency: | Varies |
| Course Length: | Semester |
| Credits: | Varies |
| Prerequisite: | Manuf \& Engineering 3 and instructor <br> approval |

Advanced students may apply for internship opportunities in our Manufacturing \& Engineering facilities. Teamwork, communication, problem solving, and productivity are applied in building employment and career foundations. Students will work with industry partners. Students must have successfully completed or be simultaneously scheduled in Manufacturing \& Engineering 3 or 4. Requires instructor recommendation, interview and approval.


66
I took welding because
I wanted to have fun.
Instead I had a blast and
gained the start to a career, friends, and skills I didn't know I had.
-- Davis CHS 12 --

## Parenting, Academics, Careers \& Employment

PACE is a comprehensive high school diploma completion program for pregnant and parenting students (male and female between the ages of 13-21). PACE connects with a variety of community resources including the Clackamas County Department of Human Services, Healthy Start and the Clackamas Technical Education Consortium Youth Services to support students and their children. These agencies and the counseling offices at the NCSD high schools refer student parents to the program's coordinator. Students from other school districts may enroll with permission from the home district.
While parents are taking classes, on-site state certified childcare for babies and toddlers between six weeks and 4 years of age, is available. Besides the academic classes in Language Arts, Math, Science and Social Studies, PACE students take classes on parenting and career development. Students are eligible to enroll in SSC and home high school classes to meet standard high school diploma requirements.


## think outside the box....

# SSC Makerspace 

 a place to imagine, design \& make
## BUILD

## CREATE

INVENT

## DESIGN

TINKER


## EXPLORE

## THE

 OPTIONS!
[^0]:    "No person (on the basis of any condition) shall be excluded from participating in any educational program or activity of the school district for which they qualify. North Clackamas Schools are responsible to ensure a safe environment for all students and will not tolerate any form of discrimination or harassment."

[^1]:    *Prerequisite required for this course

