

# New CTE Center

2022-2023 Schedule, Staff, and Course Proposal



# Current Classes and Enrollments

(Each are semester long courses)

- Intro to Woods- 43 (4 sections)
- Cabinet 1- 40 (2 sections)
- Cabinet 2- 23
- Autos 1- 32 ( 3 sections)
- Autos 2- 17 (2 sections)
- Machine Tool Tech 1- 11
- Machine Tool Tech 2- 6
- Welding 1- 19 (2 sections)
- Welding 2- 23 (2 sections)

\*Enrollment is up this year in each course\*



# Needs That Should Be Considered With Scheduling

- **Increase the minutes a student is in class during a semester**
  - 46 minutes in the current class period is restrictive for many tasks completed in CTE classes.
  - Many tasks that are considered to be basic take more than 46 minutes to complete for students
  - ***Solution:*** Create a schedule that allows students to block certain classes together. The idea would be to do either of the following:
    - Block class periods so that students that take a shop based class in the CTE building have 2 class periods to gain needed skills. Blocked classes would be all 1 and 2 level classes.
    - Block students in morning groups and afternoon groups. This would allow the students to stay at the CTE building for consecutive class periods. This would allow them to finish up one lab that may be running slightly over and then move to the next CTE class.

# Proposal- Creation of Two Initial Career Pathways For Students


- **Create a new CNC pathway**

- Removal of the current energy power technology class.
  - Creation of a CNC 2 class to replace Energy Power Tech
  - This class would develop an understanding of advanced tool path creation and milling techniques.
- Renaming the current Drafting class CNC 1
  - This class teaches students introductory knowledge of design and coding needed to run CNC machines
- Course Progression
  - Intro to Woods/Metals - Freshman Year (2 semesters)
  - Machine Tool Technology 1 - Sophomore Year
  - Machine Tool Technology 2 - Sophomore Year
  - CNC 1 - Junior Year
  - CNC 2 - Junior Year
  - Workplace Experience - Senior Year (CNC related job placement 15hr/week)
  - Completion of full pathway results in nearly 800hrs of combined classroom, lab and workplace experience culminating in a certificate.


- **Create a new Building Trades Pathway**

- Adding Building Trades back to the course offerings
  - Building Trades 1
  - Building Trades 2
- Course Progression
  - Intro to Woods/Metals - Freshman Year (2 semesters)
  - Cabinet 1 - Sophomore Year
  - Cabinet 2 - Sophomore Year
  - Building Trades 1 - Junior Year
  - Building Trades 2 - Junior Year
  - Workplace Experience - (Placement with local construction companies 15hr/week)
  - Completion of full pathway results in nearly 800hrs of combined classroom, lab and workplace experience culminating in a certificate.

# CNC Pathway-Course Sequence

CAREER PATHWAY		
		
HIGH SCHOOL COURSE PLAN		
	9th Grade	10th Grade
English	English 9/ English 9 Honors	English 10/ English 10 Honors
Math	Informal Alg 1/Algebra I/Geometry	Algebra 1/Geometry/Algebra 2
Science	Earth Science/Biology/AS Biology	Biology/Environmental/Chemistry/AS Chemistry
Social Studies	Not Required- but have option	US History/AP US History
PE	PE	PE
Elective		
Elective		
Elective	Intro to Woods/Metals (full year)	Machine Tool Tech I and II Blocked Courses
Recommended Work Experiences	Explore Manufacturing Careers through Xello	Interview a Machinist or Shop Supervisor: Job Shadow
	11th Grade	12th Grade
English	English 11/AP Lang/AP Lit	English 12
Math	Algebra II/Pre-Calc/Dual 112/116	Not Required- elective option
Science	Not required- but option to take	Not Required- elective option
Social Studies	Government	Not Required- elective option
PE	PE	PE
Elective		Work Place Experience Full Year
Elective	CNC 1 and CNC 2 Blocked Courses	Work Place Release - On the Job Site
Elective		
Related Clubs/Activities	Robotics Club	
Recommended Work Experiences	Enroll in DOL paid apprenticeship through CNC Manufacturing course.	Work experience through DOL paid apprenticeship.
POST-SECONDARY RECOMMENDATIONS		
Training and/or Certification Options		Immediate Employment Options
<a href="#">BHC CNC Manufacturing Certificate</a>		Springfield Armory
<a href="#">ICC CNC Machining Program</a>		Arconic
<a href="#">McHenry College CNC Certificate</a>		Rock River Arms
		John Deere
		EATON
College or University Options/Majors		Military Options
<a href="#">NIU Engineering Technology Program</a>		<a href="#">Army National Guard 91E Allied Trades Specialist</a>
<a href="#">WIU Engineering Technology Program</a>		<a href="#">US Air Force Aircraft Metals Technology</a>
<a href="#">Bradley Industrial and Manufacturing Technology Program</a>		<a href="#">Marine Corps Basic Machinist</a>

# Building Trades Pathway-Course Sequence

CAREER PATHWAY		
		
HIGH SCHOOL COURSE PLAN		
	9th Grade	10th Grade
English	English 9/English 9 Honors	English 10/English 10 Honors
Math	Informal Algebra 1/Algebra I/**Geometry	Algebra I/**Geometry/Algebra 2
Science	Earth/Biology/AS Biology	Biology/Environmental Science/**Chemistry
Social Studies	Ancient/Western Civ/World History	US History/AP US History
PE	PE	PE
Elective	Student Choice	Student Choice
Elective	Student Choice	Cabinet 1 and Cabinet 2 Blocked Courses
Elective	Intro to Woods/Metals (Full Year)	
Recommended Work Experiences	Explore Manufacturing Careers through Xello	Interview a Building Trade Shop Supervisor: Job Shadow
	11th Grade	12th Grade
English	English 11/AP Lang/AP Lit	English 12/AP Lang/AP Lit/Dual Credit 101/102
Math	Algebra II/Pre-Calc/Dual Credit 112/116	Not Required- elective option
Science	Not Required- elective option	Not Required- elective option
Social Studies	Government-Required 1 semester/AP Govt	Not Required- elective option
PE	PE	PE
Elective	Student Choice	Work Place Experience Full Year
Elective	Building Trades 1 and Building Trades 2 Blocked Courses	Work Place Release - On the Job Site
Elective		
Related Clubs/Activities	Robotics Club	
Recommended Work Experiences	Enroll in DOL paid apprenticeship through Building Trades course.	Work experience through DOL paid apprenticeship.
POST-SECONDARY RECOMMENDATIONS		
Training and/or Certification Options		Immediate Employment Options
<a href="#">Carpenters Local 166 Apprenticeship</a>		Hazelwood Homes
<a href="#">Local 25 Plumbers and Pipefitters</a>		Bob Johnson Construction
<a href="#">Local 145 IBEW</a>		Werner Restoration
<a href="#">Local 309 Laborer's</a>		Arconic
<a href="#">Local 111 Ironworkers</a>		Rock Island Arsenal
College or University Options/Majors		Military Options
<a href="#">UW Platteville Project Management Program</a>		<a href="#">Carpentry and Masonry Specialist - Army</a>
<a href="#">University of Illinois Civil Engineering</a>		<a href="#">Builder - Navy</a>
<a href="#">WU Construction and Facilities Management</a>		<a href="#">MOS OCC Field 13 - Construction - Marines</a>

# Staffing- Option One - 2 Career Pathways with 2 Instructors

## Career and Technical Education Scheduling

### 2 Pathways 2 Instructors

#### Stone: Building Trades Pathway

##### Semester 1

Intro to Woods/Metals	1 Period
Cabinet 1	2 Periods
Building Trades 1	2 Periods
Autos 1	1 Period
Autos 1	1 Period

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7 Total Periods

##### Semester 2

Intro to Woods/Metals	1 Period
Cabinet 2	2 Periods
Building Trades 2	2 Periods
Autos 2	1 Period
Autos 2	1 Period

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7 Total Periods

#### Bess: CNC Pathway

##### Semester 1

Intro to Woods/Metals	1 Period
Machine Tool Tech 1	2 Periods
CNC 1	2 Periods
Welding 1	1 Period
Welding 1	1 Period

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7 Total Periods

##### Semester 2

Intro to Woods/Metals	1 Period
Machine Tool Tech 2	2 Periods
CNC 2	2 Periods
Welding 2	1 Period
Welding 2	1 Period

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7 Total Periods

- Pros:
  - Cheaper than hiring 3rd full-time teacher
  - Works with current staffing
  - Learn skills in correct sequential order
  - Workplace Experience = Certification
- Cons:
  - Instructor Course Load- 7 periods
  - Burnout
  - Elimination of Electives currently available
  - Workplace experience would have to go to a different staff member



# Staffing- Option Two- 2 Pathways with 3 Instructors

## 2 Pathways 3 Instructors

### Stone: Building Trades Pathway

#### Semester 1

Cabinet 1	2 Periods
Building Trades 1	2 Periods
Autos 1	1 Period
Autos 1	1 Period

6 Total Periods

#### Semester 2

Cabinet 2	2 Periods
Building Trades 2	2 Periods
Autos 2	1 Period
Autos 2	1 Period

6 Total Periods

### Bess: CNC Pathway

#### Semester 1

Machine Tool Tech 1	2 Periods
CNC 1	2 Periods
Welding 1	1 Period
Welding 1	1 Period

6 Total Periods

#### Semester 2

Machine Tool Tech 2	2 Periods
CNC 2	2 Periods
Welding 2	1 Period
Welding 2	1 Period

6 Total Periods

### Third Instructor:

#### Semester 1

Intro to Woods/Metals	1 Period
Intro to Woods/Metals	1 Period
Audio Video Production	1 Period
Workplace Experience	1 Period
Workplace Experience Sup	1 Period

5 Total Periods

#### Semester 2

Intro to Woods/Metals	1 Period
Intro to Woods/Metals	1 Period
Energy Power Technology	1 Period
Workplace Experience	1 Period
Workplace Experience Sup	1 Period

5 Total Periods

- Pros:
  - Balanced Course Load
  - Can offer same electives with still blocking certain courses.
  - Workplace Experience supervised by department member.
  - Expands the number of students who can take CTE Classes
  - Learn skills in correct sequential order
  - Workplace Experience = Certification
- Cons:
  - Finding a 3rd staff member
  - May need to get creative in the hiring process.
  - Cost to hire a 3rd FTE



# Recommendation

- To post for a 3rd instructor for the new CTE Center
- Maximum return on investment with minimal additional cost compared to option #1.



# Work To Be Done On Our End- Pending Approval For An Additional Instructor.

- Finalize the 2 Career Pathways and update our course catalog offerings.
- Post for additional staffing.
- Submit for 2 career pathway endorsements for high school diploma to ISBE
- Hold community business meeting with teachers, admin, and DOL rep to begin steps of a certified apprenticeship program for our two pathways.
- Propose and finalize the course changes needed for the CNC pathway.
  - Drafting becomes CNC 1
  - Energy Power Tech becomes CNC 2
- Secure funding to ensure materials are on hand to supply projects needed in each pathway.
- Determine if a recommendation for enrollment supply fees, similar to FACS, and Art will be made to the BOE for consideration.

Thank You!  
Questions?