Building Industries Technologies (BIT)

(A CORE-Plus Construction Program)

Course Outline and Syllabus

Instructor: **Mr. Selset**

Location: Interlake High School Wood Shop Contact: selsetw@bsd405.org

Program Introduction and Description:

Hello and welcome to a program dedicated to introducing and practicing key concepts of Construction and the Building Industry as a whole. With an industry that is experiencing profound growth, technological innovation and an ongoing need for qualified and reliable personnel, this class is designed to help students define their path forward to post-secondary and career options.

In the Building Industries Technologies (BIT) Program, we will be completing several individual and group assignments, as well as individual and group projects intended to establish and reinforce those concepts introduced.

Textbooks Utilized:

- Carpentry, Level 1 (NCCER, Pearson Publishing)
- Mathematics for Carpentry and the Construction Trades (NCCER, Pearson Publishing)

Course Topics of Emphasis:

- Introduction to the Building Industry
- Careers in the Building Industry
- On-site Safety, Tool & Equipment Safety
- Industry Standards in Measurement (Length, Area, Volume)
- Introduction to Design, Print Reading & Project Layout
- Materials and Science Used in Construction (Adhesives, Coatings, Sealants, Membranes)
- Applied Math in Construction (Fractions, Geometry, Algebra)
- Physics in Construction (Loads, Forces, Structural Dynamics)
- Hardware, Fasteners and Structural Steel
- Introduction to Plumbing, Electrical
- Company Organization & Operations
- Project Planning, Estimating, Scheduling & Building

Class Format, Philosophy and Purpose:

The purpose of working in a production-centered shop/site environment is to broaden a student's exposure to their inherent capabilities of creativity, problem solving and employability. Daily, students will be working as much with their hands as with their minds, as this class lends itself to that synergistic goal.

Course Goals:

- **Career Readiness**

Students will gain skills related to employability, including career exploration, basic resume writing and interview skills.

- **Safety**

Students will be provided and required to wear safety glasses while working in the shop. Students will operate machinery and use hand tools safely and properly. It is the obligation of the student to pass all written safety tests, maintain a documented record (in-class provided) of safe machinery demonstration and usage. Improper and/or unsafe

operation of tools, or willfully making weapons of any kind, will not be tolerated. In those significant cases, documentation and parent/guardian contact will be the result. Shop and site safety are a priority.

- **Tools and Machinery Processes**

Students will be instructed through demonstration and hands-on methods the proper procedures utilized to safely and effectively complete the projects assigned.

- **Building and Design Skills**

Students will be instructed, and will apply the knowledge derived thereof, in the various aspects and characteristics of residential and commercial construction, engineered materials, measurement; basics in carpentry, joinery and fasteners, electrical and plumbing; power tools, hand tools; sketching and designing. In addition, skills involving estimating, budgeting and bid proposal will be taught and utilized.

Student Expectations:

- Show up for class ***on time*** (at least 5 min. before the bell), and ready to practice, learn and work.
- Demonstrate respect and kindness toward other classmates and the instructor.
- Strive to improve leadership skills (setting a good example) in classroom behavior as well as quality of work.
- Observe and practice the rules regarding safety and class protocols.
- Show a willingness to challenge oneself and grow with your accomplishments.
- Share with your family (parents, brothers, sisters, aunts, uncles, grandparents etc.) what you're learning and what you're working on.

*Students are expected to participate *every day*, to the best of their individual and unique ability, in *all* the learning and shop activities assigned. The following actions will result in teacher-student follow-up:

- Treating others (instructor included) in a manner that is disrespectful.
- Lack of participation in clean-up activities
- Unexcused absences and tardies
- Conduct that is detrimental to the progress, advancement and/or safety of the class or other individuals.

Absences For school-related activities (music performance, athletic competition, club activity, etc.), students should work with their teachers to make a plan **prior to participation** in the activity or instructional program. Missing school for any reason does not excuse class activities, assignments, or assessments that were missed. For unexcused absences, students will have the opportunity to make up any missed assignments that can be made up (at the discretion of the teacher).

Artificial Intelligence (AI) Use:

For all student work that shows knowledge, skills, or abilities, AI tools are only to be used with the direct and explicit permission of your teacher. If in doubt, ask. Use of AI, in an unauthorized manner and/or practice will result in a zero.

Schoolwide Classroom Expectations:

1. No cell phones, headphones, or personal devices are to be used during class time unless authorized by the teacher.
2. Students are responsible for knowing when, if, and how to use AI or other sources to complete work. If you don't know? Ask, please!
3. Students will limit breaks to 5 minutes. Breaks are at the discretion of and permission from the instructor.
4. Students will use a hall pass if in the hallway during class time. One person allowed out at a time.
5. Students will refrain from taking a break or leaving the classroom during the 1st and last 10 minutes of class.

Dual College Credit

Students have the opportunity to earn college credit through this course! This course is Pacific Northwest College Credit approved and articulated with Renton Technical College, Renton, WA.

CONST 160 – Materials, Methods & Equipment	3 credits
CONST 250 – Project Safety & Accident Prevention	4 credits

Students who demonstrate proficiency of the college course competencies with a 'C' or better grade, may be eligible to earn college credit through the PNW College Credit program. During the school year, all of the college competencies will be covered in class. (…some may require additional independent work by the student). Students must register online using the Renton Tech registration system, which will be covered in the latter half of the year. These earned credits are free of charge for qualifying students.

Parent/Guardian Expectations:

- Check your student's grades online every week to avoid surprises and to get an indication of classroom activity.
- Contact the instructor. Positive and intentional communication is vital for successful class experience.
- Ask your student about what is going on in class—what's the current project? How is that project going? What have you learned/taught yourself, recently?
- (Please) Ensure any permission forms are returned in a timely manner, and any fees are paid on time.

Grades and Grading:

This class is structured upon the acquisition and demonstration of the knowledge and skills utilized in the building industry. Therefore, a significant portion of the overall grade a student receives is based upon those projects and student performance. In addition, there will be a number of safety quizzes, student tool demonstrations and student competencies that will be factored in, as well. In the interest of students preparing themselves for their future, each student will be graded upon active classroom participation and workspace management (Employability Skills). Lastly, all ***students are expected to be on time and prepared*** for work/class; apply their knowledge in working on the projects; clean, organize and maintain a high-functioning shop, and, whenever appropriate, provide assistance to others.

Grading Scale		
3.5 to 4.0	=	A
2.75 to 3.49	=	B
2.00 to 2.74	=	C
1.50 to 1.99	=	D
0.00 to 1.49	=	F

1) Grades are an indication of performance-based outcomes. **Grades are student earned** (not given).
2) It is the student's responsibility to monitor and track their grades in the class.
3) In order to earn dual credit, students must earn a grade of C or better.
4) Assignment scores and grades are calculated on a 0 – 4 scale basis and are not weighted.
5) Late turn-in of assignments is accepted and, with evidence of proficiency, earn a maximum B grade. Any late assignments must be submitted by the end of the current associated unit. Presentations are made up only with an excused absence.

Only cumulative grades will be posted on the District gradebook.

Signatures (Your signature indicates that you have read and understand the information and obligations outlined above)

Student _____ Date _____

Parent/Guardian _____ Date _____

Best contact: Email_____ Phone _____

Secondary contact: Email _____ Phone _____

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