# William D. Ford
# Career-Technical Center
# Wayne-Westland Community Schools

**36455 Marquette**
**Westland, MI 48185**
**734.419.2100**

## Course Syllabus
## 2019-2020

### Heating, Ventilation, Air Conditioning and Refrigeration

**CIP NUMBER: 47.0201**
**PSN 14206**
**Instructors: Mr. Michael Van Hollebeke (Lead Teacher)**
**Office Number: 734-419-2124**

**Google Classroom--HVAC 2020-2021**
**Class code: v6jnjd5**

***This syllabus will change due to COVID remote learning program***

| | Monday | Tuesday | Wednesday | Thursday | Friday |
|---|---|---|---|---|---|
| **Period Time** | *All Students* | *All Students* | *All Students* | *All Students* | *All Students* |
| 7:25 - 8:05 a.m. | Instructional Support | Instructional Support | Intervention, Instructional Support, Independent Study | Instructional Support | Instructional Support |
| 8:05 - 10:25 a.m. | AM Shift & embedded Math | **PM Shift Math Classes*** PM Shift: Office Hours, Small Groups, Instructional Support | | AM Shift & embedded Math | **"PM Shift Math Classes*** PM Shift: Office Hours, Small Groups, Instructional Support |
| 10:25 - 11:00 a.m. | Lunch | Lunch | | Lunch | Lunch |
| 11:00 - 1:50 p.m. | **AM Shift Math Classes*** AM Shift: Office Hours, Small Groups, Instructional Support | PM Shift & embedded Math | | **AM Shift Math Classes*** AM Shift: Office Hours, Small Groups, Instructional Support | PM Shift & embedded Math |

**State Segments:**
**1. AC/DC Electrical Fundamentals (math formulas)**
**2. Safety**
**3. Principles of Power Conversion**
**4. Documentation/Communication – Blueprint, wiring, diagrams, schematics**
**5. Electrical test equipment and measurement – power supplies, meters**
**6. Cabling and soldering - conductors**
**7. Controls – motors and logic controllers**
**8. Tools, fasteners, equipment (safety related)**
**9. Prototype and Design and Manufacturing devise analysis**
**10. Information Technology Application (specific IT software)**
**11. Employability skills, careers, work habits, teamwork**
**12. Problem solving and critical thinking**

**Course Description:**
This program will prepare you for an exciting and rewarding career in the diagnosis, maintenance, installation and repair of residential and commercial heating and air conditioning systems. Students will learn safety, basic electricity, electronics, refrigeration, air conditioning/ventilation and the use of test equipment in this field for installation and troubleshooting. Students also learn wiring diagrams, controls and tools. Frequent lab work allows students to apply skills learned in class on real equipment. The curriculum also allows students to use electronic, digital and computer controls for managing energy systems found in large office and industrial buildings. This program teaches students diagnosis, maintenance, installation and repair of residential and commercial heating and air conditioning systems. Students will learn safety, basic electricity, electronics, refrigeration, air conditioning/ventilation and the use of test equipment for installation and troubleshooting. Students also learn wiring diagrams, controls and tools. Frequent lab work allows students to apply skills learned in class on real equipment. The curriculum also allows for students to use electronic and digital controls for managing energy systems found in large office and industrial buildings.

**Dress Code:**
All students are expected to follow the William D. Ford CTC dress code. In addition to the school's policies, please make sure you are wearing closed-toe shoes. Students are required to follow proper safety rules especially when operating equipment.

**School Policies and Procedures:**
All students are expected to follow all policies and procedures in the William D. Ford CTC Student Handbook.