

# DAKOTA HIGH SCHOOL

## TRANSPORTATION TECHNOLOGY 1A/1B - COURSE SYLLABUS

**Instructor:** Mr. Allan E. Kobler

**Office hours:** 2:15 – 2:45pm

**Classroom #:** 161 / Fab Lab144

**Telephone Number:** (586) 723 2857 has voice mail

**Email address:** [akobler@cvs.k12.mi.us](mailto:akobler@cvs.k12.mi.us) *(this is the preferred method of contact)*

Length: 1 Hour - 1 Year

Credit: 1.0

**Text:** Various publications and internet research, readings and resource documents.

**Software:** MS Office 2007 , Internet Explorer

### **Focus:**

The Development and use of Technical problem solving skills, critical thinking skills and results evaluation adjustment skills (test / fix) in order to get from point A to point B. Consideration / discussion and exposure to various non renewable, sustainable and renewable energy sources and systems are included in the project development concepts. This is a focused project based learning course.

### **PREREQUISITES:**

None

### **CURRICULUM OUTLINE:** (may include but not limited to:)

- Shop Safety
- Recycle Vehicle
- Wire Guided Speeder
- Flight /Friction/Energy
- Magnetic Levitation Shuttles (MagLev)
- Safety Circle Plane / Scratch Planes – Balsa / paper
- Hill Climb – gears and weights
- Hover craft (rubber motor or electric motor)
- Random Propulsion land based vehicle
- Scratch Rockets
- Hot Air Balloon – Indoor / Outdoor (atrium with cool air / outdoor no wind cool air)
- Cognitive rigor assignments related to Common Core Stds - ( Applied Mathematics / Applied Informational reading )

### **SUPPLIES REQUIRED FOR CLASS:**

The gathering of materials from recycle bins and perhaps 9volt batteries based on project.  
9 volt batteries **will be returned to students** as they are for their own vehicle / project.  
Most all materials are instructor provided.

### **EVALUATION and GRADING:**

\*All assignment scores are points based. Total points accumulated / total possible is the grade percentage for the quarter.  
Additionally, Two quarters points are added to create a semester grade point total (see Guidelines)

\*Lab clean up / lab work ethic: (up to) 30%

\*Projects,: (min) 70%

\*NOTE: Mid-Term and Final Exams may be included as regular grade totals and not show on report cards in the exam columns. (Instructors option – will not apply if no midterm is assigned)

### **GRADING SCALE:**

A	100 -95	B-	83 - 80	D+	69 - 67
A-	94 - 90	C+	79 - 77	D	66 - 64
B+	89 - 87	C	76 - 74	D-	63 - 60
B	86 - 84	C-	73 - 70	F	59 & Below

### **ATTENDANCE:**

Active attendance in the class is a valuable and integral part of the student's grade. Attendance in school is the responsibility of the student and his/her parents or guardian. Attendance has a bearing on academic achievement and will reflect in a student's grade. Excessive absence or tardiness, whether excused or unexcused, can result in a failing grade during the marking period or semester.

## Project fees / Associated Costs

Students are not charged lab fees associated with projects as all materials and supplies are normally funded by the CTE department of Chippewa Valley Schools. Students may incur additional costs for specific projects that go above and beyond the standard scope of the original project. These costs apply if they choose to pursue fabrication capabilities or parts supplies outside of the fabrication lab.

## EVALUATION and ASSESSMENT

Students will be evaluated and assessed by: written testing, oral presentations, demonstrations, participation, and hands-on performance (build projects). Students will also prepare and submit a self-evaluation.

## GRADING SCALE

A	100 -95	B-	83 - 80	D+	69 - 67
A-	94 - 90	C+	79 - 77	D	66 - 64
B+	89 - 87	C	76 - 74	D-	63 - 60
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- **Extra Credit Policy:**
  - If original credit is complete then extra credit will be provided. 10% of the total points available is the maximum allotted extra credit.
- **Homework Policy:**
  - Lab work, in-class work and appropriate in-class time is supplied for assignments due to the nature of curriculum delivery. All "home" work assigned will have fully defined due dates and criteria.
- **Late Work Policy:**
  - All late work will be penalized 20% per day late. No work will be accepted after 5 days.
- **Reassessment Policy:**
  - Daily lab build projects work towards mastery and are suggested to be tested / fixed and resubmitted. Actual final assessments or learning assessments are singular events.
- **Testing Aids:**
  - All student resources are available for test taking, such as; binder portfolios, notes, prior work, industry reference materials.
- **Student email address: (student.name @cvs.k12.mi.us)**
  - All students must set up and use the district provided email to communicate with the instructor regarding class assignments and information provided by the instructor to the class. Students must check their email daily upon entering the CAD lab for new information. Students should also set up access at home or on their phone for effective information access.

## Academic Integrity Policy

The primary rule in this lab based class is RESPECT. It applies to all aspects of the class. If you are wondering if something is allowed or will be tolerated ask yourself where the word respect is involved in the action. Remember, this class is a privilege - not a requirement.

In addition to **horseplay** of any type, the following actions will not be tolerated whatsoever and will be cause for permanent removal with a failing grade from this design technology program. These rules and guidelines are in addition to the school handbook and district policies.

- Cheating / Academic dishonesty in any form.
  - Examples:
    - Taking someone else's work and using it for your own / sharing your work.
    - Tampering / damaging someone's project or work.
    - Deleting files from other student's directory.
- Destruction of lab equipment of any form.
  - Examples:
    - Cutting or damaging the workstation surface.
    - Damaging the PC and any of its components.
    - The damage, removal / disassembly of any part of the lab furniture, equipment or any part of the PC and its components including wires and cables.

Unauthorized Internet usage could result in permanent removal of computer privileges in the lab. Internet usage will only be allowed upon instructor approval. A failing grade in all CAD work will result without the use of a computer.

Unauthorized software applications, the loading or playing of music files or mP3 down loading will result in permanent removal of computer privileges in the lab.

Unauthorized access to the inner workings of the software of the PC system (hacking) or installing any software, changing the background of the desktop, changing the computer time or date, installing games, using the network for unauthorized communication or storage, or accessing the C: drive will result in permanent removal of computer privileges.