***Oakwood Collegiate Institute***

*991 St. Clair Ave, West. Toronto, Ontario M6E 1A3 416-393-1780*

*Website:* [*http://schools.tdsb.on.ca/oakwoodci/*](http://schools.tdsb.on.ca/oakwoodci/)

***Course Outline:***

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| ***Academic Year 2019-2020*** | | ***Teacher Name: J. Flynn*** | |
| ***Department: Experiential Learning -Tech*** | | ***CL / ACL: M. Abdelmassih*** | |
| **Course Title** | Technological Design | **Course Code** | TDJ3M |
| **Prerequisite** | None (Recommend TDJ2O) | **Grade** | 11 |
| **Level** | College/University | **Credit Value** | 1.0 |

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| **Course Description** |
| **Ontario Ministry of Education Document: Ontario Ministry of Education Document: 2009 Revised The Ontario Curriculum Grades 11 and 12 Technological Education** |
| This course examines how technological design is influenced by human, environmental, financial, and material requirements and resources. Students will research, design, build, and assess solutions that meet specific human needs, using working drawings and other communication methods to present their design ideas. They will develop an awareness of environmental, societal, and cultural issues related to technological design, and will  explore career opportunities in the field, as well as the college and/or university program requirements for them. |
| **Textbook and Other Resources:** No text Software AutoCAD Lt, Google SketchUP |

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| **Course Overview: Instructional Strands/Units** | | | |
| ***Unit Titles*** | ***Approximate***  ***Timeline*** | ***Unit Description*** | ***Assessment & Evaluation Tasks*** |
| AutoCAD | 20 hours | Introduction to AutoCAD LT. demonstrate an understanding of drafting standards, conventions, and guidelines for various types of drawings used to represent designs; | Tutorials, quiz, project work |
| SketchUP | 20 hours | Introduction to Google SketchUP. apply appropriate methods for generating and graphically representing design ideas and solutions; | Tutorials, quiz, project work |
| Traffic Flow  Project | 20 | describe appropriate strategies, techniques, and tools for researching, organizing, planning, and managing design projects and related activities, with an emphasis on financial, human, and  material resources;  describe and apply health, safety, and environmental practices related to technological design; | Complete and submit project tasks (safety quizzes, CAD file, SketchUP file, puzzle pieces) as requested. Present ideas using these submissions. |
| IceChallenge | 20 | demonstrate an understanding of a variety of tools, materials, equipment, and processes used to build, test, and evaluate models and prototypes using 3Dprinter;  demonstrate an understanding of environmentally responsible design practices, and apply them in the technological design process and related activities; | Complete and submit project tasks (report, CAD file, SketchUP file, finished object) as requested. Present ideas using these submissions. |
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| **Learning Supports for Students** |
| Supports for Students with Individual Education Plans (IEP’s)  Subject teachers provide accommodations and modifications as outlined on student IEP’s. Supports may include: organizational support, additional time, graphic organizers, reduced work load, chunking of information, note-taking assistance, assistive technology (computer), preferential seating. |
| Extra Help   * Teachers post the time that they are available for extra help in their classrooms. Students are encouraged to speak with their teachers to arrange other times as required. * Students can also see their Guidance Counselor for information on other academic supports available. |

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| **Student Evaluation Criteria** | | | |
| **Term Work** | | **Culminating Activities** | |
| **Curricular Strands** | |
| Knowledge/Understanding | 15% | Final Project | 30% |
| Inquiry/Thinking | 15% |  |  |
| Communication | 10% |  |  |
| Application | 30% |  |  |
| *Term Work 70%* | | *Culminating Activity Total 30%* | |

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| **Report Card Schedule** | | | | |
|  | **1st Report Card** | **Interim Report Card** | **2nd Report Card** | **Final**  **Report Card** |
| **Report Cards** | Nov. 20, 2019 | Feb. 7, 2020 | April 16, 2020 | June 28, 2020 |
| **Parent-Teacher Interviews** | Nov. 28, 2019 | Feb. 13, 2020 |  |  |

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| **Assessment of Learning Skills** |
| **Independent Work** – Uses class time appropriately to complete tasks |
| **Collaboration** – Accepts various roles and an equitable share of work in a group |
| **Organization** - Arrives to class prepared and on time, meets deadlines with quality work and maintains a complete notebook |
| **Responsibility** – Fulfils responsibilities and commitments within the learning environment |
| **Initiative** – Looks for and acts on new ideas and opportunities for learning |
| **Self-Regulation** – Sets own individual goals and monitors progress towards achieving them |

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| **Department Expectations, Policies and Procedures** |
| Student safety is the number one concern while working in the shop. All general safety rules and machine specific rules are to be followed at all times. Never use any equipment without having received and understood safe operating procedures from the qualified tech teacher. A clean workspace enables safe habits. Students are expected to maintain the shop/lab. This includes the daily cleaning of the shop and proper storage of materials and tools. Report any broken or missing tools.  Daily attendance is vital for success in Tech courses. Students are expected to arrive on time for every class and be prepared to work.  **PUNCTUALITY** – When the bell rings, students are expected to be at their desks / benches, with notebooks and materials out, ready to begin. If you do arrive late enter the shop without disturbing the rest of the class.  **ATTENDANCE** – If students are absent, they are expected to bring a note explaining the absence and to complete missed work.  **ACADEMIC HONESTY / PLAGIARISM**: page 15 of your agenda detail policies regarding academic honesty.  **FOLLOW THE BEHAVIOUR EXPECTATIONS** – Please see the agenda pages 8-10 |