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| **Course: Machine Trades Mathematics 1** | | | | **Credits: 1** | | |
| **Subject Abbreviation:** | **Course #** | | **Section #** | |  | |
| **MACHTL** | **300** | | **001** | |  | |
| **Class Meets: According to the Students schedule** | | | | |  | |
| Start Date: | | **End Date:** | | | | |
| **Instructor: Dr. George A. Garland Jr.** | | | | | | |
| **Phone number: 414 – 269 – 9820** | | **E-mail:** [**garlandg@gmail.com**](mailto:garlandg@gmail.com) | | | | |
| **Course Description:** Related course designed to give machine tool students background on shop mathematics and its use on the job. | | | | | | |
| Prerequisites: Referral from sponsoring agency | | | | | | |
| **Textbook:**  **Mathematics for Machine Technology,**  J. Peterson and R. Smith, 7th Edition | | | | | | |
| **Supplies:** Provided to the student as needed | | | | | |
| **Competency Based Training:**  students learn by successfully completing the Assignments. | | | | | | |
| **Test –** Pre-assessment, In-course unit assessments and Post assessment. | | | | | | |
| **Course calendar:** See page 3 and 4 | | | | | | |
| **Assessment Activities:** Student Projects that relate to On-the-job work activities.  Each activity is related to what would be required in CNC Job Shop. | | | | | | |
| **Grading Standards:** You will receive a Certificate of Completing for successfully completing the training.  **Homework Assignment:** You should study your assigned reading and Class assignments at home. This will help you to understand the course material better. Write down any questions and ask the Instructor for help when you come to class. | | | | | | |
| **Attendance Policy:** You are expected to attend the class session as scheduled. We are required to notify Case Workers about your attendance. | | | | | | |
| **Behavior:** All students are expected to follow the **IESI Code of Conduct** – Posted at the entrance and in the classroom | | | | | | |
| **Cell Phones –** Please set on silent & please no conversations or texting during class time .You will be asked to leave class if you disturb the class. | | | | | | |
| **Calculator Use:** Do not use your cell phone as a calculator for class work. You will be given a scientific calculator required to do the class work. | | | | | | |
| **Student Complaint Procedure:**  **1.** Instructor **2.** Dr. George Garland 3. Sponsor Agency | | | | | | |
| **Note: This Syllabus is subject to change** | | | | | | |

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| IESI Core Abilities  The Core Abilities are skills that allow students to continually adapt and learn. They have been called “employability skills,” soft skills, and professional attributes. You may not be tested for all of the Core Abilities directly, but you will demonstrate or apply them to complete lessons or to improve skills. The Core Abilities and indicators are listed below, and the ones you will be focusing on in this course are checked. | **Applies to Course** (•) |
| Communicate Effectively |  |
| a. Use effective oral communication skills | Yes |
| b. Use effective written communication skills | Yes |
| c. Apply standard rules of language structure, including grammar and spelling | Yes |
| d. Listen actively to others | Yes |
| e. Derive meaning from text | Yes |
| f. Communicate in a bias-free manner | Yes |
| g. Support viewpoints with evidence |  |
| Collaborate with Others |  |
| a. Demonstrate respect in relating to people | Yes |
| b. Cooperate and resolve conflicts effectively | Yes |
| c. Participate in shared problem solving | Yes |
| Respect Diversity |  |
| a. Acknowledge personal prejudices and biases | Yes |
| b. Appreciate perspectives of people outside own background/culture | Yes |
| Demonstrate Responsibility |  |
| a. Attend classes as scheduled | Yes |
| b. Turn in quality work | Yes |
| c. Adhere to safety rules and regulations | Yes |
| d. Act professionally to fulfill job duties within chosen field | Yes |
| e. Demonstrate flexibility and self-directedness in learning | Yes |
| Think Critically |  |
| a. Differentiate between fact and fiction | Yes |
| b. Consider other viewpoints and perspectives | Yes |
| c. Present logical arguments | Yes |
| d. Evaluate sources of information to solve problems | Yes |
| Utilize Technology |  |
| a. Use technology to communicate | Yes |
| b. Solve problems using technology | Yes |
| c. Use appropriate technology to manage information | Yes |
| d. Recognize the impacts of technology | Yes |
| Apply Math and Science |  |
| a. Apply math concepts and principles appropriately | Yes |
| b. Apply scientific concepts and principles appropriately | Yes |
| c. Interpret meaning from quantitative data | Yes |
| d. Interpret meaning from scientific data | Yes |

**Outline Machine Trades Mathematics 1**

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| --- | --- | --- | --- | --- | --- | --- |
|  | Date - | Chapters & Readings | Unit | | Pages | Problems To Do |
| 1 |  | Introduction & Syllabus  **`This outline may be changed due to circumstance beyond my control.**  Mathematic for Machine Tech. **7th** Edition by Peterson & Smith | | | | |
|  | | | | |
| Course Introduction Common Fractions &  Mixed Numbers  Addition | | 1  2 |  | Problems 1,2,3,5,7.9,10,11  Problems 1,5,9,10,11,12 |
| 2 |  | Subtraction of Common  Fractions and Mixed Numbers  Multiplication | | 3  4 |  | Problems 1,2,3,4,5  Problems 1,2,3,4,7,8 |
| 3 |  | Division of Common Fractions & Mixed Numbers  Combined Operations of  Common Fractions &  Mixed Numbers | | 5  6 |  | Problems 5,7,911,14,15  Problems 3,5,6,7,9,10 |
| 4 |  | Decimal Fractions | | 8 |  | Problems 1,2,3 |
| 5 |  | Add and Subtract Decimals | | 10 |  | Problems1,2,3,5,7,8 |
| 6 |  | Metric Units of Linear  Measure | | 25 |  | Do odd problems |
| 7 |  | Applied Algebra - Degree of Precision (Standard & Metric units) | | 26 |  | Do odd problems |
| 8 |  | Applied Algebra - Tolerance, Clearance and  Interference (Standard &Metric units) | | 27 |  | Do odd problems |
| 9 |  | Applied Algebra - Customary and Metric Steel Rules | | 28 |  | Do odd problems |
| 10 |  | Applied Algebra - Customary & Metric Gage Blocks | | 31 |  | Do odd problems |