



# Michigan Tech

## UN5390: Scientific Computing I

Fall 2016

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### Prep Work

#### Help the instructor understand your learning needs

Respond within a week of receiving this document or by June 15, 2016 – whichever is later.

1. Explain your expectations: specific goals you wish to accomplish during or as a result of completing this course
2. Do you know/use the Linux OS (command line)? If yes, assign a numerical score on a scale of 1 to 10 (1 being I just know the name of it, and 10 being I use it every day for just about everything I do)
3. Do you know any programming languages? If yes, assign a numerical score to each language on a scale of 1 to 10 (1 being I just know the name of it, and 10 being I pretty much know everything there is to know about it)
4. Have you heard of (or used)  $\text{\LaTeX}$  document preparation system? If yes, assign a numerical score on a scale of 1 to 10 (1 being I have just heard about it, and 10 being I use it every day for just about everything I do)
5. Have you heard of (or used) a revision control system? If yes, assign a numerical score on a scale of 1 to 10 (1 being I have just heard about it, and 10 being I use it every day for just about everything I do)

Please list the contact information for your research advisor (full name, department and email address). If you don't yet have a research advisor, please list the contact information for the graduate studies director in your department/program.

## Help yourself make an optimal use of this course

Complete these before the instruction begins.

1. Sign up for a free account in <https://github.com/>. Preferably, use your Michigan Tech ISO username as the username in GitHub. If you have already signed up and been using GitHub, there is no need to open a new account. Email the instructor your username to receive an invitation to join the **MichiganTech** organization in GitHub
  - (a) Use the link below to accept the invitation  
<https://github.com/MichiganTech>
  - (b) Make your profile public and update it  
<https://github.com/orgs/MichiganTech/people>  
<https://github.com/settings/profile>  
You are representing yourself, me, this course, your advisor, department/program, and the Michigan Tech at GitHub. Use your full/preferred (yet professional) name for **Name**, Michigan Technological University for **Company**, Houghton, MI for **Location** and a professional photograph (guidelines: [#1](#) | [#2](#)).
  - (c) Do not edit the contents of the course repository until instructed to do so. Read through the PDFs in **PrepWork/RequiredReading** folder. Work through the tasks listed in **PrepWork/TrainingCamp** folder. These are intended to familiarize you with the Linux OS, vim editor, L<sup>A</sup>T<sub>E</sub>X document preparation system and Git revision control system
2. Familiarize yourself with one or more programming languages – guided by their applicability to your research endeavors, and their potential for parallelization (e.g., C/C++, FORTRAN, Julia, MATLAB, Python, etc.)
3. Acknowledging that you need help and asking for it when necessary is not a sign of weakness. Be sure to appropriately cite the source of any such help. Practice your verbal and written communication skills.

Michigan Tech Multiliteracies Center

<http://www.mtu.edu/humanities/mtmc/mission/>

Purdue University Online Writing Lab

<http://owl.english.purdue.edu/owl/>