Michigan Tech
Create the Future

# UN5390: Scientific Computing I

Fall 2016

## 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) 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).
   GitHub is providing the university private repositories free of cost (through my collaboration; worth several thousand $ each year). A wise and professional use will continuously show GitHub that we are worthy of their investment

   (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, LaTeX 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/