Math 497R: Mentored Research

Instructor: Tuan Pham

Office hours: MWF 12:30 PM – 2:00 PM at SCB 316

Course description: this 1-credit class is to assist you on your research project.

Meeting time: the class will meet once a week for one hour at the date and time agreed by the instructor and all class members.

Canvas: https://byuh.instructure.com/courses/1481983

Grading components:

Attendance: 5 points each meeting (8 weeks)

Writing: 5 points each meeting (8 weeks)

Total: 80 points

Resource:

1) *Set up the workspace*
2) The book "Fourier Series" by Tolstov.
3) The book "*Fourier Analysis*" by Stein and Shakarchi.
4) The book "*Chebyshev and Fourier Spectral Methods*" by John Boyd.
5) The book "*Spectral Methods*" by Canuto and others.
6) The paper "*Tracing complex singularities with spectral methods*" by Sulem, Sulem, Frisch
7) Coding on Google Colab: *https://colab.research.google.com*
8) Typesetting with Overleaf: *https://www.overleaf.com/project*
9) Install Inkscape with LaTeX extension
10) Integrate Wolfram Language into JupyterLab