

# intro

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## 1 Welcome to QM 492

### 1.1 Data Analysis and Visualization

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Course website: [bit.ly/mis492\\_syl](http://bit.ly/mis492_syl)

## 2 Course Plan:

- 8 weeks of course work.
- 8 weeks of Project work and self learning.

## 3 Course Work Plan:

- Week 1: Python primer.
- Week 2: Pandas and dataframes.
- Week 3: Loading/Storing data.
- Week 4: External data sources (The internet).
- Week 5: Exploring and cleaning Data.

## 4 Course Work Plan (cont.):

- Week 6: Reshaping data.
- Week 7: Plotting and Visualization
- Week 8: Topics to persue:
  - Natural Language Processing (NLP)
  - Machine Learning (ML)
  - Social Network Analysis (SNA)

## 5 Projects:

- Midterm project:
- Design to evaluate skills from week 1 to 7
- Unified requirements

## 6 Projects (cont.):

- Final Project:
- Apply learned and self-learned skills
- Phased:
  1. Proposal (class presentation)
  2. 1st Submission (meeting)
  3. 2nd Submission (meeting)
  4. Final Submission (class presentation)

## 7 Recommended resources:

- [Think Python](#): Your reference for the python language (Free online book)
- [Learning with Python 3 \(RLE\)](#): Another textbook for your reference (Free online book)
- [Python for Data Analysis](#): Excellent book on Pandas and data analysis and visualization (Paid)
- [Programming Collective Intelligence](#): Best introductory book to making use of data (Paid)
- [Python Online Documentaion](#): Must always return to this for reference, see tutorial and library reference (Free).

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