

**CMSC 491/691**  
**Knowledge Graphs**

Administrivia

Fall 2018

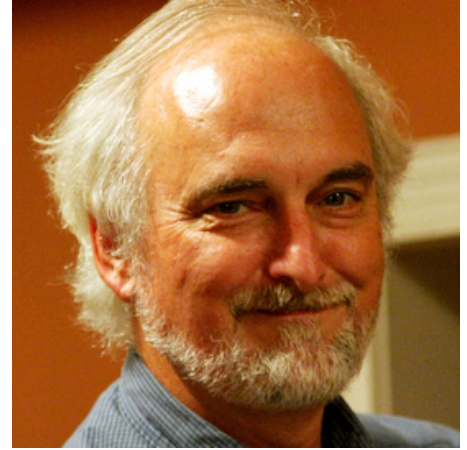
# Course Objectives

- Understand concepts, motivation, goals underlying knowledge graphs (KGs)
- In depth understanding of Semantic Web (SW) languages and tools
- Be able to create and use ontologies using SW languages
- Understand the different kinds of KG reasoning
- Create, consume and manipulate KG data
- Know alternatives: XML, JSON, Schema.org, Google Knowledge Graph, ...
- Ability to define and implement a KG project

# Grading

- Grades will be based on homework, quizzes, exams and a project
- 5-6 short **homework** assignments
  - Submissions will be via github classroom
- Occasional online Blackboard **quizzes** focused on readings
- In class **midterm** exam near middle of class, comprehensive **final** at end
- **Project** can be individual or small groups and will have a *proposal* and *final report*
- Probable weighting: 40% homework, 15% project, 10% quizzes, 15% midterm, 20% final

# Instructor availability



Instructor: Professor Tim Finin

- Pronounced like *fine + in*, not like *fin + in*
- Office: ITE329, [finin@umbc.edu](mailto:finin@umbc.edu), phone:410-455-3522
- Official office hours: by arrangement
- Drop in whenever my door is open
- Direct general questions (i.e., those that other students may also have and that a Web search can't answer) to Piazza first
- We'll try to respond to postings on the discussion list or private email messages within 24 hours

# Programming, etc.

- Homework requires using various systems/tools
- We'll use GitHub for started code & submission
- Some will require programming; can be done in any language (e.g., Java, Python); Python preferred
- Examples demonstrated in Unix (Linux or MAC OS X); most can be made to work on Windows
- A web server on your computer may be useful

Web Site: <http://bit.ly/691f18>

The screenshot shows a web browser window with the following elements:

- Browser Tab:** UMBC CMSC491/691, Special x
- Address Bar:** Secure <https://www.csee.umbc.edu/courses/graduate/691/fall18/07/#1>
- Page Header:** UMBC CMSC 491/691 (07) Fall 2018
- Section Title:** Knowledge Graphs
- Navigation Bar:** Home · Syllabus · Schedule · HW · Exams · Notes · Code · GitHub · Examples · Resources · Blackboard · Discussion
- Main Content:** A network graph visualization with nodes labeled: OpenIE, Wikidata, Freebase, Cyc, GeoNames, ConceptNet, GDelt, NELL, DBpedia, YAGO, and PROSPERA. The central text reads "KNOWLEDGE GRAPH".