

# Syllabus BCB/GNET 730 Spring 2020

## Fundamentals of Quantitative Image Analysis for Light Microscopy

Instructors:

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- Jeremy Purvis jeremy\_purvis@med.unc.edu

10 meetings - Tuesday & Thursday - 3:30-4:45pm - Marsico Hall 6004

### Week 1

- Introduction to digital image processing and preparation of images for analysis
- January 14 & 16
- Exercise 1 (due 01/23/2020, Thursday)

### Week 2

- Image filtering and ImageJ macro language
- January 21 & 23
- Exercise 2 (due 01/30/2019, Thursday)

### Week 3

- Building pipelines with Cell Profiler
- January 28 & 30
- Exercise 3 (due 02/06/2019, Thursday)

### Week 4

- Introduction to tracking and colocalization
- February 4 & 6
- Exercise 4 (due 02/13/2019, Tuesday)

### Week 5

- Preparing images for publication and student questions
- February 11 & 13

Grades will be assigned based on four exercises (25% each) corresponding to the material studied in the first four weeks of the course. Discussions between students are encouraged but the assignments should be submitted individually.