### Mentee Information

Name: Xavier Gourdine  
Date: 2/13/2017  
NetID: xcg2  
Email: xcg2@illinois.edu  
Year (F, S, J, Sr): F  
Major: Computer Science

### Mentor Information

Name: Shaneen Braswel  
Date: 2/15/2017  
NetID: braswel2  
Email: braswel2  
Department: ECE

Faculty Advisor: Dr. Lynford Goddard

### Spring 2017 Research Plan

1) Write a brief outline of your research plan:

   **Title:** Vertical Grating Coupler Simulation and Testing  
   The overall goal is to use computational simulation and experimental testing to validate grating coupler performance and identify improved grating coupler designs.  
   **Project Milestones:**  
   - Literature Review/COMSOL tutorials  
   - Simulation  
   - Varying periodicity, height, width, etc.  
   - Test standard grating coupler  
   - PC Etching to explore improved design iterations (if time permits)

2) What do you hope to learn and achieve by the end of the semester?

   By the end of the semester, I hope to have achieved a working knowledge of comsol as well as a core understanding of the workings of grating couplers and to learn better methods for experimental testing.

Mentee Signature: Xavier Gourdine  
Date: 2/15/2017  
Mentor Signature: Shaneen Braswel  
Date: 2/15/2017