General Description:

As a result of the multi-disciplinary nature of the research being pursued in the Armani group, undergraduate research projects are tailored to the undergraduate researcher’s interests within the general scope of the research activities of lab. Example projects being pursued in the Armani Lab by undergraduate researchers include the synthesis of low loss optical materials, design and construction of malaria diagnostic and tissue profiling instrument, and fabrication of integrated optoelectronic devices. All research is performed in the Michelson Center.

In developing these projects, Prof. Armani first meets with the undergraduate researcher to identify: 1) areas of interest and 2) areas of strength. Typically, in a follow-up meeting, Prof. Armani assigns a student to a project related to those interests along with a mentor.

Undergraduate researchers in the Armani Lab work as part of a team comprised of students and post-docs from a wide range of academic backgrounds (biology, chemistry, physics, electrical engineering, chemical engineering, materials science, biomedical engineering). However, they are expected to lead their portion of the project, taking and analyzing all data. For example, depending on the project, undergraduates have fabricated devices in a Class 100 cleanroom, used different spectroscopy and material characterization methods (FTIR, spectrophotometry, ellipsometry), and performed microscopy (optical, electron and fluorescence). Undergraduates have previously been co-authors on publications and presented research at conferences.

Position Details: This position will start in fall 2018 and requires a commitment of at least 12 months, including 10 weeks of full-time (paid) work during the summer. During the academic year, it is expected that students can commit at least 5hrs/wk to research. Part of this research can be performed for directed research credit or for Merit Research. All undergraduate student researchers are given desks in Michelson.

Requirements: There are no formal requirements (prior experience, year or major, GPA). However, given the 12 month minimum requirement, preference is given to sophomores.

To apply:

Applications will be evaluated on a rolling basis until June 15, 2018. A subset of applicants will be selected for either an in-person or an online interview (depending on availability). All decisions will be made by August 5, 2018; however, decisions may be finalized before that date.

To submit an application, email: Prof. Andrea Armani, armani@usc.edu, with the subject line: Undergrad Research. Include a 1-2 page resume, and short answers (under 200 words each) in the main body of the email to: 1) Why are you interested in doing research? 2) What do you want to do when you graduate?