## GT 2201 (1 credit) / GT 2202 (2 credits)

## **Syllabus - Grand Challenges Research**

*Credits:* 1 or 2 credit hours per semester

Structure: You must register or 1 or 2 credits for this course each semester, either Pass/Fail or a Letter Grade. IF you register for 3 hours in one academic year AND IF it is for a letter grade and IF your major school allows it, this credit MAY count towards the undergraduate research option.

*Description:* This course is for participants in year 2 of the Grand Challenges program. Students will organize into small teams of 4-8 student to pursue research and development projects that were approved and funded in year 1. Participating students can also propose new projects (see below).

Schedule: There is a designated weekly meeting time of 2 hours/week. It is also expected that students will spend 3-6 hours/week (depending on credit) outside of class working on the research project.

There is an introductory lecture, 2 guest lectures, 2 team progress discussions, and a final presentation. The remaining weeks the students will meet with their project advisor or Dr. Butera. Typical schedule:

Week 1 – organizational meeting
Weeks 2-4 – revise and submit project proposal, work with facilitator
Week 5 – progress meeting
Week 10 – progress meeting
Finals Week – project presentations

*Grading:* You grade is based on your own contributions as evidenced by your lab notebook and journal entries, teamwork as based upon by facilitator and peer evaluations, and presentations at the 2 progress meetings and final project presentation and report.

Lab notebooks and journals: 25% Teamwork and peer evaluations: 20% Week 5 progress report: 5% Week 10 progress report: 15% Final progress report: 20%

Final progress presentation: 15%

The EARLY WEEKS ARE CRITICAL. Key tasks include: Revising the proposal, building relationships with clients and team advisors, dividing up work on the timeline, assigning administrative team tasks (managing, documenting, technical).

In the second semester the original proposal will be revisited and re-crafted based on results from the first semester.