

## Grand Challenges Scholars Program Application

Name: \_\_\_\_\_ Student ID: \_\_\_\_\_

Undergraduate Year (Freshman, Sophomore, Junior, Senior)

1. Describe in 1/2 to 1 page maximum (12-font single-spaced) why you are interested in participating in the Grand Challenges Scholars Program.
2. Describe in ½ page maximum (12-font single-spaced) a Grand Challenges research area you are interested in and explain why you are interested in that area.  
(<http://engineeringchallenges.org/challenges.aspx>)
3. Name of a UB faculty member that has agreed to serve as a reference:  
\_\_\_\_\_
4. Attach a resume
5. Attach an unofficial transcript (webadvisor)

Submit the completed application and requested documents to:

Dr. Jani Macari Pallis: [jpallis@bridgeport.edu](mailto:jpallis@bridgeport.edu)

Please feel free to contact Prof. Abhilasha Tibrewal ([abhilash@bridgeport.edu](mailto:abhilash@bridgeport.edu)) or Prof. Jani Macari Pallis ([jpallis@bridgeport.edu](mailto:jpallis@bridgeport.edu)) if you have questions or would like to discuss the GCSP

## **Opportunity to Join the University of Bridgeport's Grand Challenges Scholars Program**

### **What is the Grand Challenges Scholars Program?**

At a White House meeting in 2015, University of Bridgeport dean of the School of Engineering, Dr. Tarek M. Sobh, was one of 122 U.S. engineering school deans who committed to President Barack Obama to prepare specially trained engineers to address the major global challenges of the 21<sup>st</sup> century through the Grand Challenges Scholars Program (GCSP).

These "Grand Challenges" are complex, critical goals which include areas such as providing clean access to water globally, engineering better medicines, enhancing virtual reality, making solar energy cost-competitive, securing cyberspace, reverse-engineering the brain, advancing personalized learning tools to deliver better education to more individuals and engineering the tools for scientific discovery. (See all the National Academy of Engineering Grand Challenges: <http://www.engineeringchallenges.org/challenges.aspx>)

### **Grand Challenge Scholars are guided by GCSP advisors in the following areas:**

- 1. Research:** Mentored research or project experience related to a Grand Challenge to enhance technical competence and creativity.
- 2. Interdisciplinary Curriculum:** Understanding gained through experience of the multidisciplinary character of implementable and viable Grand Challenge solutions
- 3. Entrepreneurship:** Understanding gained through experience that viable business models are necessary for successful implementation of Grand Challenge solutions
- 4. Global Dimension:** Understanding gained through experience that serious consideration of cultural issues is mandatory for all viable Grand Challenge solutions
- 5. Service Learning:** Deepen social consciousness and motivation to address societal problems, often gained through service learning, because serving people is the vision served by the Grand Challenges

**Freshman Year-** All School of Engineering undergraduate students are invited to explore possibilities of Grand Challenge Scholars Program. Students complete a brief application to inform their academic advisor and the program director of their interest. All School of Engineering freshman and transfer students are introduced to the NAE Grand Challenges and the University of Bridgeport Grand Challenges Scholars Program through biweekly on-campus Grand Challenges Scholars Program meetings and introductory courses in engineering or computer science.

**Sophomore Year-** Students apply for ‘conditional’ appointment to the Program with a second application and present their portfolio with evidence of their initial commitment and progress from their freshman year.

**Junior Year-** Students apply for ‘full’ acceptance to the Program with a proposal and academic plan for completing research and course requirements. The students will present their portfolio with evidence of commitment and work completed.

**Senior Year-** Students meet with their faculty research advisor and Program director/committee to assess progress, past and future, to assure all requirements are met and documented. The students will present their portfolio with evidence of commitment and work completed.

After the freshman year, ‘conditional’ and ‘full’ appointment into the Grand Challenges Scholars Program and continuation will be based on achieving and maintaining a minimum 3.0 cumulative GPA, satisfactory academic progress, selective service status, if required, and full-time status. The student will maintain a minimum 3.0 major and cumulative GPA. Additionally, the committee will review the student’s materials to determine that all requirements are met, and will subsequently grant approval for continuation and /or completion of the GCS program.

### **Resources and Recognition**

In addition to the national press release and letter from the National Academy of Engineering president, UB graduates of the program will have a Grand Challenge Program notation on their official university transcript. Scholars will receive a letter from the Dean of Engineering and the Director of the Grand Challenge Scholar Program. They will be bestowed a special honor stole to wear with their graduation robe. Funding will be available for travel to GCSP conferences, global outreach and project materials for students officially accepted into the program as juniors and seniors (up to a total of \$2000 per scholar).

### **How to Apply**

Students must meet the following requirements and complete the attached application.

- Must be currently enrolled undergraduate student within a major in the School of Engineering
- Must have a 3.0 cumulative GPA
- Must be able to attend biweekly meetings during the Fall and Spring semesters
- Must complete and submit: the attached application by November 1 (Fall semester deadline)/ April 1 (Spring semester deadline) to Dr. Pallis (jpallis@bridgeport.edu).