

University of Nebraska-Lincoln
College of Engineering

Grand Challenge Scholars Program



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I. GCSP Vision

The College of Engineering at the University of Nebraska – Lincoln (UNL) has undertaken a dramatic and aggressive transformation to better serve our state’s engineering workforce and technology-based economic development needs. It is our mission to connect our education and research programs to the citizens we serve, at the highest possible level. This must be done in a broader context of a global society, with an insatiable need for engineers and technological innovation. In realizing this goal, we will become recognized nationally and internationally for how well and how broadly our programs support our constituents and the world.

The UNL College of Engineering recognizes the changing needs of the engineering profession. By introducing a Grand Challenge Scholars Program (GCSP) at UNL, students will be able to leverage many of the college’s existing programs and opportunities to build their Grand Challenge portfolio and fulfill requirements. We have developed, and are continuing to develop, new curriculum, programming and initiatives to aid in the demand for qualified engineers:

- Leadership/essential non-technical skills course sequence including an Engineering Leadership Minor.
- The Complete Engineer initiative and The Complete Engineer Conference, featuring professional and personal development, interactions with leading engineering executives and thought leaders, and a team-based competition. For more info visit: <http://engineering.unl.edu/complete-engineer/>
- Increasing “Engineering Literacy”: reaching beyond the college to increase understanding and appreciation for the role engineers play in all of our lives.
- Reinventing the Senior Design Showcase to elevate the advanced research and projects of our students.
- Enhancing career development services and expanding research opportunities.
- Launching campaigns that focus on Nebraska’s centers of excellence: Biomedical Innovations/Virtual Medicine, Transformational Food Manufacturing, Combatting Weapons of Mass Destruction and, Big Data & Civil Infrastructure.

Implementation of the Grand Challenge Scholars Program at UNL will help to develop our students into the engineering leaders needed for the 21st century. This program will help prepare and inspire our students to become more socially conscious, innovative, passionate and engaged in the field of engineering. The UNL Grand Challenge Scholars Program will provide a solid platform for students to expand upon their learning experience, beyond traditional coursework. Upon completion, Grand Challenge scholars will enter the workforce equipped with the tools and skills necessary to address and solve the challenges our world faces today.

Our Grand Challenge Scholars will complete individualized plans that combine programs, curriculum, and research. We recognize that each student has their own interests and passions, and the college wants to be as flexible as possible to help incorporate experiences and tailor the program for each individual. This personalized approach will help to motivate students, both from a recruitment standpoint and a retention standpoint as they progress through the program.

II. GCSP Selection & Support

The College of Engineering envisions an initial cohort of approximately 10 to 12 students, encompassing both the Lincoln & Omaha campuses. The program will be available to current first-year students enrolled in the University Honors Programs. A smaller initial cohort will allow us lead time to gain feedback and insight to determine the direction & plausibility for scaling the program. The UNL Grand Challenge Scholars Program will be promoted through our ongoing recruitment and outreach efforts, the Honors Programs, and student engagement/first-year experience activities such as: introductory engineering courses, academic advising sessions, new student enrollment, engineering learning communities, and more.

As mentioned above, the UNL GCSP will create a cohort of the College of Engineering's honors students. This means that students will need to be enrolled, or in the process of enrolling, into the university honors program as a prerequisite for the UNL GCSP. The reasoning behind this is that the College of Engineering wants to engage our best and brightest students in the initial implementation of the program and many of the current honors program outcomes and initiatives align with the five components of the GCSP. It will also provide further incentives for our engineering honors students to remain in the honors programs in order to benefit from the opportunities and resources offered by the GCSP. The college's relationship with the UNL and UNO honors programs will provide a mutual benefit for both parties. After discussions with both honors programs, the collaboration between our departments was deemed feasible and the honors program leaders are excited and engaged in this new venture.

As the UNL Grand Challenge Scholars Program develops, we anticipate adding key partnerships to provide assistance in areas that promote the programs initiatives and efficiencies. These partnerships will require a collaborative effort with offices in the following areas: Honors Program (continuing our current partnership), Undergraduate Research, First-Year Experience, Education Abroad, and more. Also, working closely with the students' individual departments within the College of Engineering will be an integral part of evaluating the Grand Challenge Scholars Program curriculum and effectiveness.

The UNL Grand Challenge Scholars Program is looking for student applicants with a passion for one or more of the 14 Grand Challenges and an interest in exploring solutions. Selection will be based primarily on this determination, not solely relying

on prior academic performance. As previously stated, admission into the program will be open to all undergraduates who are currently enrolled in the UNL and/or UNO Honors Program, or are planning on enrolling at or before the beginning of their second year at the university. All student applicants are required to be in good standing with the College of Engineering. To apply, students must submit the GCSP application online (See Appendix C), which includes a selection of the Grand Challenge(s) they wish to pursue, an essay explaining their motivation & passion for that challenge, and other supplemental material as noted. Students must submit an application by March 1, upon which they will be reviewed by the UNL GCSP Committee. The committee will aim to process these applications and complete selection by the end of March. Offer letters will be sent out following the committee review/selection process.

The UNL Grand Challenge Scholars Program will be supported through a network of engineering staff and faculty. This network will span multiple departments, as the program will require support from the honors program, recruitment, retention, advising, undergraduate research, business/accounting office, and graduation services. The UNL GCSP Committee consists of College of Engineering faculty and who oversee the program's development, implementation and operation.

Initially, this program will be funded by using college resources and/or scholarship funds as foundational seed money to offset program costs. As the program evolves and develops we believe this program will be attractive to individual and corporate donors who demonstrate a passion for student development and the grand challenge initiatives. Our vision is to have all operational costs and program scholarships covered for all Grand Challenge Scholars Program participants within five years. The college will support each GC Scholar with an additional \$500.00 scholarship, in addition to the student's UNL Honors scholarship of \$500.00 per academic year, bringing the total scholarship amount for GC scholars to \$1,000.00 per academic year. UNO however does not provide its honors students the \$500.00 scholarship, so the College of Engineering will provide any Omaha-based GC scholars the full \$1,000.00 amount.

III. GCSP Components/Curriculum

UNL's College of Engineering is in a unique position in that UNL engineering degree programs are offered at two locations within the University of Nebraska system: University of Nebraska-Lincoln (Lincoln campus) and, the University of Nebraska-Omaha (Omaha campus). This inter-campus collaboration allows the college to utilize resources from both institutions offering a unique opportunity for both engineering students and employers. This also poses some challenges regarding the implementation of required curricular components of the program as each location utilizes different internal systems and course structures.

Due to this, the UNL Grand Challenge Scholars Program is largely focused on satisfying program requirements by allowing students to choose from a list of unique

extracurricular opportunities and experiences, rather than following a predetermined set of course requirements. The UNL GCSP will be affiliated with both the UNL and UNO Honors Programs, as GCSP students will need to be enrolled in the honors program to be eligible for the GCSP designation. Many of the honors requirements coincide with one or more of the GCSP component requirements. The UNL GCSP Committee will work with each student to evaluate equivalencies between the GCSP and the University Honors programs. This will allow the students to receive a more personalized experience, as most Grand Challenge components and Honors Program requirements have the option to be customized with activities, course contracts, and programs outside of the college/university.

To assess completion in key areas of the program, we are looking to implement a student portfolio for each of the Grand Challenge Scholars. This portfolio will be the location in which approval documents, reflections, forms and additional information will be stored and administered. We are currently looking at best ways to deploy a portfolio system. For the initial term we foresee beginning with a paper-based system and transitioning into an online system within a two year time period.

The Grand Challenge Scholars Program consists of five components: Research/Creative, Multidisciplinary, Business/Entrepreneurship, Multicultural, and Social Consciousness. Students must satisfactorily fulfill all five component requirements to successfully complete the UNL Grand Challenge Scholars Program. Multiple options are given to the scholars. These options can be viewed in the 'GCSP Rubric' (See Appendix A) for each of the components. This flexible approach is necessary to ensure that each of these requirements is available on each campus (i.e. Lincoln and Omaha). Options for each of the five components are listed and must be completed to satisfy program requirements. Overlap may occur as some activities may satisfy multiple requirements (GCSP & Honors). This is perfectly acceptable and, in most situations, even encouraged. However, students will not be allowed to choose similar options throughout the separate GC components. For example, a student would not be allowed to choose the 'seminar/conference' option for more than one GC component. Students will need to contact a member of the UNL GCSP Committee to have any inquiries or proposals regarding component overlap, double-dip, or previously completed activities reviewed and approved. Approval of activities, programs, and projects not listed in the rubric will only be reviewed if the activity-in-question meets the following three criteria:

1. Relevant to at-least one of the student's Grand Challenge focuses
2. Similar time commitment as the other approved activities
3. Ability to be assessed and reviewed.

THE 5 GCSP COMPONENTS
Component Completion Requirements and Options Defined

1. Research/Creative

All UNL Grand Challenge Scholars must complete some form of research or creative hands-on experience. This may be accomplished in a variety of different ways. One potential option for the students is participation in UNL's formal undergraduate research program, Undergraduate Creative Activities and Research Experience (UCARE). This may be a paid opportunity to work one-on-one with a faculty research advisor on projects related to the student's Grand Challenge. For some students, a formal undergraduate research program may not be the best option. For these students, other opportunities are available to satisfy this requirement. Research or creative hands-on projects outside of the UCARE program, design projects with a grand challenge focus, and other experiences relating to research and/or creative projects will all be considered and assessed by the committee for approval. Senior Design projects, independent study, Internships & Co-ops, and other in-depth research experiences will all be considered for component completion.

Select one (1) option:

- Undergraduate Research:
 - o Experience must be approved by GCSP committee prior to using experience as a GCSP requirement.
 - o Must write 3-to-4 page paper outlining the experience you hope to have as you approach your project.
 - o Must present research findings to GCSP committee.
 - o Following research experience and presentation, must write 5-to-10 page reflective paper on experience and how you will apply your research to your grand challenge.
- Internship / Co-Op:
 - o Experience must be approved by GCSP committee prior to using experience as a GCSP requirement.
 - o Must write 3-to-4 page paper outlining the experience you hope to have as you approach your internship/co-op.
 - o Must present on internship experience to GCSP committee.
 - o Following internship/co-op experience and presentation, must write 5-to-10 page reflective paper on experience and how you will apply your research to your grand challenge.
- Thesis Option:
 - o All completion requirements for the thesis option must be approved by GCSP committee prior to the writing thesis.
- Other approved Research/Creative Project or activity:
 - o Project/activity/experience, as well as all completion requirements, must be approved by GCSP committee prior to the project/activity/experience taking place

2. Multidisciplinary

Grand Challenge Scholars will be supplied with an approved list of courses, seminars and programs to choose from in deciding how they approach this multidisciplinary component; however, other activities may be satisfactory pending approval from the GCSP committee via the Component Approval Form (CAF). This form can be viewed in Appendix 'D'. This component will reflect the area(s) in which the student is interested and, will largely be completed by the selection of non-engineering coursework & experiences throughout the student's undergraduate career. Again, other multidisciplinary and in-depth experiences will also be considered on an individual basis.

Required:

- Approved Non-Engineering Course:
 - o Course must be approved by GCSP Committee prior to enrollment
 - o Grade of B or higher is required.
 - o Prior to taking course, must write 3-to-4 page paper outlining what you currently know about the subject material and how you think you can apply it to your grand challenge.
 - o Following course completion, must write 5-to-10 page reflective paper on course and how you can apply it to your grand challenge.

Select one (1) additional option:

- Approved Professional Conferences or Meetings:
 - o Conferences or meetings must be approved by GCSP committee prior to attending.
 - o Prior to attending, must write 3-to-4 page paper outlining what you currently know about the seminar/conference topic how you think you can apply it to your grand challenge.
 - o Following conferences or meetings, must write 10 page reflective paper on experience and how you can apply it to your grand challenge.
- Approved Interdisciplinary Minor:
 - o Minor must be approved by GCSP committee prior to taking courses.
 - o Grade of B or higher is required.
 - o Prior to attending taking course in minor, must write 3-to-4 page paper outlining what you currently know about the minor theme and how you think you can apply it to your grand challenge.
 - o Upon completion of all minor coursework, must write 5-to-10 page reflective paper on experience and how you can apply it to your grand challenge.
- Other approved Multidisciplinary activity:
 - o Project/activity/course, as well as all completion requirements, must be approved by GCSP committee prior to the project/activity/course taking place

3. Business/Entrepreneurship

Exposure to the field of entrepreneurship and/or business/product development is the focus of the entrepreneurship component of the Grand Challenge Scholars Program. This will be satisfied by the completion of entrepreneurial coursework or, other in-depth experiences with a large entrepreneurial component. These experiences may include, but are not limited to: Business Plan/Pitch competitions, Approved ENTR/MNGT coursework, capstone project(s) or other approved external entrepreneurial endeavors.

Select one (1) option:

- Business Plan or Pitch Competition
 - o Must pitch a business concept (whether in plan or product form) focused on one of the grand challenges at a business plan or pitch competition.
 - o Prior to competition, must write 3-to-4 page paper outlining your goals and forecasting the anticipated feedback that you will get from the reviewers.
 - o Following competition, students will be required to write a 5-to-10 page reflective paper on the pitch experience, which will include a critical analysis of their product/plan, overall experience, and response to the reviewer feedback.
- Complete an approved course in the field of Entrepreneurship (ENTR) or Management (MNGT)
 - o Course must be approved by academic advisor AND GCSP committee prior to enrollment
 - o Grade of B or higher is required.
 - o Prior to taking course, must write 3-to-4 page paper outlining what you currently know about the course topic how you think you can apply it to your grand challenge.
 - o Following course completion, must write 5-to-10 page reflective paper on course and how you can apply it to your grand challenge.
- Capstone/Senior Design project with paper on subject of entrepreneurship
 - o Project must focus on innovative design or thought in the context of one of the grand challenges.
 - Some majors might not have a choice in the selection of the capstone project. In such case, they will be asked to work with the GCSP committee to determine an alternative project.
 - o Must earn B or higher in capstone course
 - o Prior to capstone experience, must write 3-to-4 page paper outline the experience you hope to gain from the capstone as it relates to your grand challenge.

- Upon completion of capstone project, must write 5-to-10 page reflective paper on the capstone experience and how it can be applied to your grand challenge.
- Other approved entrepreneurship activity
 - Project/activity, as well as all completion requirements, must be approved by GCSP committee prior to the project/activity taking place.

4. Multicultural

Leadership and diversity are important components of the Grand Challenge Scholars Program and, in order to satisfy the multicultural dimension component, the student must successfully complete some form of diversity/awareness activity such as attending a conference, workshop, or event that extensively cover the topic of global diversity and leadership. Diversity & leadership are main focuses in our *Complete Engineer Initiative* as well. The college foresees these programs working closely together to provide excellent programming for component completion. Other activities that would satisfy this component would include some form of study abroad/tour program with a significant global component attached to it, active participation in a multicultural/global service student organization, or other approved activities determined by the GCSP committee.

Required:

- Approved ACE 9 (Global Learning General Education Requirements):
 - Course must be approved by academic advisor AND GCSP committee prior to enrollment
 - Grade of B or higher is required.
 - Prior to taking ACE 9, must write 3-4 page paper outlining what you currently know about the course topic and how you think you can apply it to your grand challenge.
 - Following course completion, must write 5-to-10 page reflective essay on course and how you can apply it to your grand challenge.

Select one (1) additional option:

- Study Abroad and/or Tour experience
 - Experience must be registered through university study abroad office and cleared prior to trip taking place.
 - Experience must be approved by GCSP committee prior to attending.
 - If courses are to be taken, all courses must be approved by academic advisor to ensure they will transfer back to the college.
 - Prior to experience, student must write 3-to-4 page paper outlining their goals for the experience, as well as anticipate what it will be like living and learning in another culture.
 - Upon completion of experience, must write 5-to-10 page reflective paper on experience and how it can be applied to your pursuit of the grand challenges.

- Participate as an active member in a Multicultural or Global Service Student Organization
 - o Students will need to be verified by student organization advisor(s) as an active member for a minimum of two years to meet this requirement.
 - o Following requirement, must write 5-to-10 page paper outlining experience in the organization and the role multiculturalism will play in the solution(s) to your grand challenge.
- Approved Professional Conferences or Meetings regarding global diversity
 - o Conferences or Meetings must be approved by GCSP committee prior to attending.
 - o Prior to attending, must write 3-to-4 page paper outlining what you currently know about the featuring topic and how you think you can apply it to your grand challenge.
 - o Following conferences or meetings, must write 5-to-10 page reflective paper on experience and how you can apply it to your grand challenge.
- Other approved multicultural activity
 - o Project/activity/course, as well as all completion requirements, must be approved by GCSP committee prior to the project/activity/course taking place

5. Social Consciousness

Each Grand Challenge Scholar must participate in a service-learning project, experience, or course. Similar to other components, this can be satisfied from a variety of different activities. Students may opt to participate in a variety of service learning opportunities both on and off campus. This may include being actively involved with the Engineering Ambassadors Network, joining a University-sponsored service-learning trip, volunteering in some type of service activity documented by an established organization, participating in a service-related research experience, or becoming a mentor/tutor for other engineering students.

Required:

- ENGR 100/1000, or other approved course
 - o Course must be approved by academic advisor prior to enrollment
 - o If seeking approval for another course (not ENGR 100/1000), course must be approved by GCSP committee prior to taking course
 - o Grade of B or higher is required.
 - o Prior to taking course, must write 3-to-4 page paper outlining what you currently know about the subject material and how you think you can apply it to your grand challenge.
 - o Following course completion, must write 5-to-10 page reflective paper on course and how you can apply it to your grand challenge.

Select one (1) additional option:

- Participate as an active member in Engineering Ambassadors Network

- Will need to be verified by EAN advisor(s) as an active member for a minimum of 2 years to meet this requirement.
- Following requirement, must write 5-to-10 page paper outlining experience in the organization and the role service will play in the solution(s) to your grand challenge.
- Volunteer / Service Experience
 - Experience must be approved by GCSP committee prior to volunteering
 - Letter of reference from sponsoring-organization's supervisor required following completion.
 - Prior to volunteering, must write 3-to-4 page paper outlining what you hope to gain from the experience and how you think you can apply it to your grand challenge.
 - Following volunteer completion, must write 5-to-10 page reflective paper on experience and how you can apply that experience to your grand challenge.
- Other approved social consciousness activity
 - Project/activity/course, as well as all completion requirements, must be approved by GCSP committee prior to the project/activity taking place.

6. Summary Document(s)
SEE APPENDICES

IV. GCSP Assessment & Tracking

Student engagement and active participation in the program is crucial for its success but, more importantly, for a successful student outcome. UNL will seek to promote early student engagement through a variety of activities, meetings, and Grand Challenge events. The purpose for these engagement initiatives is to keep students motivated, interested and passionate about their chosen Grand Challenge focus area. These activities will also act to foster intramural and extramural networking among Grand Challenge scholars. Students will have opportunities to meet, network and share their passions with other Grand Challenge scholars both on-campus and at other institutions. Focus during the inaugural year of the program will be based largely around developing and fostering a sense of community for the UNL Grand Challenge scholars and, will hopefully span outwards in future years to include students from other Big 10+ Grand Challenge Scholars Programs.

Grand Challenge scholars will be advised, mentored and tracked throughout their undergraduate careers. The GCSP Committee will determine the extent to which students need to arrange meetings for progress updates. Upon entering their last semester, the student will be assessed for overall completion of the program by the UNL GCSP Committee. This will occur concurrently with the student's senior check process that has already been established. This final assessment will determine whether all of the student's core components have been met. With the support from

both faculty and staff, Grand Challenge Scholars should always be aware of their progress in the program.

The main tool that will be utilized, for review purposes, will be the UNL Grand Challenge Scholars Program rubric and assessment form (Appendices A & B). The student should use the rubric to self-report their progress regularly, and the GCSP Committee will keep an official log of student progress toward program completion.

UNL Grand Challenge Scholars will receive student recognition for their accomplishments during the program. We will be working with Graduation Services and, the Registrar's Office to implement some form of institutional recognition, similar to honors, for graduating Grand Challenge Scholars. The College of Engineering will also supply all graduating Scholars with a certificate and, dependent on the number of graduating Grand Challenge scholars, a separate ceremony/reception for family and friends. All of this will be in addition to being nationally recognized through NAE upon graduation. UNL will report all Grand Challenge Scholars Program graduates to the NAE annually.

V. Other

To reiterate, we are looking to implement a GCSP that spans two campuses, overlaps with and complements Scholars' participation in the University Honors Program, and accommodates students' needs on both campuses. This is the reason we are looking to develop a student portfolio approach as it will allow students to take advantage of opportunities on both campuses and, not lock them into a specific requirement. The student portfolios will be constructed to show approval and completion of the GCSP, and the committee will be able to utilize these portfolios as the mechanism to review, approve and certify component completion. We envision this system to be similar in nature to the existing degree audit system in place at the University. Both the student and the committee will be able to view the student's progress in the program.

The overhead associated with reviewing each of these components/courses will be large. However, if we are to take advantage of the variety of experiences offered we must have confidence in its content. Each conference, workshop, course, and event will be evaluated by the GCSP Committee. Along with the courses, the events would be pre-approved, approved on an ad hoc basis, or approved after the fact. Procedures for each type will be in place prior to implementation. You will find a draft of the Component Approval Form (CAF) in Appendix 'D'.

Understanding that UNL is the state land-grant and flagship institution, and as the only engineering college in the state, we plan to use the 14 grand challenges as context in the development of a state-wide K-12 outreach and curricular initiative to enhance the engineering and technology literacy in our state. We also currently have the Engineering Ambassadors Network, a formal K-12 outreach team in the college

with professional staff members and engineering student ambassadors. This team is in charge of orchestrating and facilitating curriculum trainings and workshops for K-12 teachers across the state and delivering age-appropriate educational programming for our Nebraska's K-12 students. From a programming perspective, we can foresee using the grand challenges as context in all of our outreach efforts, which includes creating age-appropriate materials, presentations, and resources to help our K-12 students understand the grand challenges regardless of their age.

From a technical and non-technical perspective, we strongly believe the grand challenges will provide the necessary context to introduce the field of engineering to the students, teachers, and parents of Nebraska. These challenges provide us with opportunity to make engineering personal to our public, thus increasing the overall awareness of what engineering is, who engineers are, and what engineers do.

APPENDIX 'A'
GCSP Rubric:

Component	Required	Options:
Research / Creative	One (1) of the Research / Creative Option(s)	<ul style="list-style-type: none"> a. Undergraduate research b. Internship/Co-op related to GC focus c. Thesis d. Other approved Research / Creative Project or activity
Multidisciplinary	Approved Non-engineering course + One (1) of the Multidisciplinary Option(s)	<ul style="list-style-type: none"> a. Attend approved seminar(s) and/or conference(s) b. Approved Interdisciplinary Minor c. Other approved Multidisciplinary activity
Business / Entrepreneurship	One (1) of the Business / Entrepreneurship Option(s)	<ul style="list-style-type: none"> a. Business Plan Competition or, similar "pitch" competition b. Complete an approved course in the field of ENTR or MNGT c. Capstone/Senior Design project w/ essay based on subject of entrepreneurship d. Other approved Business / Entrepreneurship activity
Multicultural	Approved ACE 9 + One (1) of the Multicultural Option(s)	<ul style="list-style-type: none"> a. Study Abroad/Tour program b. Multicultural or Global Service Student Org. c. Attend approved seminar(s) and/or conference(s) regarding global diversity d. Other approved Multicultural activity
Social Consciousness	ENGR 100 or, other approved course + One (1) of the Social Consciousness Option(s)	<ul style="list-style-type: none"> a. Engineering Ambassadors Network b. Volunteer/Service Experience c. Other approved Social Consciousness activity

*Students will submit a reflection essay for each component, relating their experiences to their chosen GC focus

**Student cannot choose similar options to complete multiple components


***At least one component must be completed each year in the program

APPENDIX 'A' (Cont.)
GCSP Rubric:

As you make progress toward each component, please update this document for the Grand Challenge Scholars Program Committee to review.

Component:	Completed	In-Progress	Not Completed	Comments/Notes:
Research / Creative				1. Option(s): _____
Multidisciplinary				1. Option(s): _____ 2. Interdisciplinary Course:
Business / Entrepreneurship				1. Option(s): _____
Multicultural				1. Option(s): _____ 2. ACE 9:
Social Consciousness				1. Option(s): _____ 2. ENGR 100/0, or other approved course:

APPENDIX 'B'
GCSP Completion Assessment:

<p>All 5 GCSP components have been met.</p>	 <p>Student must have all 5 GCSP components approved & completed prior to the GCSP Committee uses this Assessment to determine program completion.</p>				
	1 point	2 points	3 points	4 points	5 points
<p>Student actively participated in the GCSP each semester in program.</p>	<p>No commitment or contributions were made to GCSP portfolio for multiple semesters.</p>	<p>No contributions were made to GCSP portfolio for a single semester.</p>	<p>No contributions were made to the GCSP portfolio for some time, less than a semester.</p>	<p>Some contributions and commitment was documented every semester.</p>	<p>Actively involved in GCSP in every semester.</p>
<p>Student completed GCSP in a unique, creative fashion.</p>	<p>No creative, unique, or personal elements in GCSP portfolio.</p>	<p>Creativity and uniqueness are lacking in GCSP portfolio.</p>	<p>Creativity and uniqueness is present in some GCSP components.</p>	<p>Creativity and uniqueness is present in most of the GCSP components.</p>	<p>Creativity and uniqueness is present in all GCSP components.</p>
<p>The student's GC theme is apparent in all GCSP components</p>	<p>A Grand Challenge theme was not taken into account.</p>	<p>A GC theme is present in 1-2 GCSP components.</p>	<p>A GC theme is present in 3 of the GCSP components.</p>	<p>A GC theme is present in 4 of the GCSP components.</p>	<p>A GC theme is present throughout all 5 GCSP components.</p>

Circle or Highlight the area in each category that the student best represents

<p>For GCSP Committee to complete:</p>	<p>TOTAL: <input type="text"/> / 15 points (max)</p>
<p>_____</p> <p>_____</p> <p>_____</p>	
<p>Signature:</p> <p>Grand Challenge Committee Member: _____</p>	

NOTE:
Minimum of 12 points required to graduate from the Grand Challenge Scholars Program in addition to satisfying ALL GCSP requirements

APPENDIX 'C'
GCSP Application:

(Visit <http://go.unl.edu/gcspapply> to complete online application)

Name _____
First M.I. Last

NUID# _____ **E-Mail** _____

Local Address _____
Street Address / Box Number

City State Zip Code Area Code Telephone Number

Home Address _____
Street Address / Box Number

City State Zip Code Area Code Telephone Number

Department _____

Major(s) _____
(Minor if applicable)

Grand Challenge Interests:

FIRST preference**:
1. _____

SECOND preference:
2. _____

THIRD preference:
3. _____

***Required*

Choose one (or more) Grand Challenges you are interested in pursuing:

1. *Make Solar Energy Economical*
2. *Provide Energy from Fusion*
3. *Develop Carbon Sequestration Methods*
4. *Manage the Nitrogen Cycle*
5. *Provide Access to Clean Water*
6. *Restore and Improve Urban Infrastructure*
7. *Advance Health Informatics*
8. *Engineer Better Medicines*
9. *Reverse-Engineer the Brain*
10. *Prevent Nuclear Terror*
11. *Secure Cyberspace*
12. *Enhance Virtual Reality*
13. *Advance Personalized Learning*
14. *Engineer the Tools of Scientific Discovery*

Additional Documents:

Submit to GCSP Committee via online web form by **March 1:**

1. Completed UNL GCSP Application (<http://go.unl.edu/gcspapply>)
2. Personal Statement (300-500 word essay describing your passion/motivation for the GC focus noted above)

APPENDIX 'D'
GCSP Component Approval Form (C.A.F.):

Approval/Appeal Process:

- Student requesting approval of a course, activity or event to satisfy a GCSP component must complete this form and submit to ESS Office, Nebraska Hall W204 / PKI 107.
- The GCSP Committee will review the request.
- Final decision will be communicated to the student via email and will be updated on student's GCSP Portfolio.

Date: _____
Student Name: _____
Student NUID#: _____
Email: _____
Major: _____

Please check which component your request would satisfy, if approved:

- | | |
|--------------------------|-----------------------------|
| <input type="checkbox"/> | Research / Creative |
| <input type="checkbox"/> | Multidisciplinary |
| <input type="checkbox"/> | Business / Entrepreneurship |
| <input type="checkbox"/> | Multicultural |
| <input type="checkbox"/> | Social Consciousness |

Proposed course/event for approval:

Term course will/has be taken or Date of event/activity:

Please provide more information/detail about the course/event/activity in question. Explain:

For GCSP Committee to complete:

Approved Denied Approved, w/ changes (below):

Signature:
Grand Challenge Committee Member: _____