GC Curricular Plan

Name: _______________________________________________________________

Classification: __________________________________________________________

Major: __________________________________________________________________

GC Faculty Mentor: _______________________________________________________

If you have spoken with a faculty member who has agreed to serve as your Mentor, please list
their name in the blank. If you would like assistance in securing a Mentor, please list “Mentor
Requested” in the blank.

GC Focus Area: __________________________________________________________

(Choose from: make Solar energy economical; provide energy from fusion; develop carbon sequestration
methods; manage the nitrogen cycle; provide access to clean water; restore an improve urban
infrastructure; advance health informatics; engineer better medicines; reserve-engineer the brain; prevent
nuclear terror; secure cyberspace; enhance virtual reality; advance personalized learning; or engineer the
tools of scientific discovery)

5 GC Curricular Components:

Each GC Scholar Apprentice must develop a Curricular Plan which satisfactorily addresses each of the
following components. **Note that this is a planning document which may change over time.** There is
flexibility built into the Curricular Plan. The requirement is that a suitable option is met for each
component and that all activities fit under a single GC Focus Area. You should work with your GC Faculty
Mentor in developing and carrying out your Plan to ensure that all criteria are met.

1) **Research Experience**

____________ an approved team or independent senior capstone research project/course(s)*

Or

____________ an approved team or independent design project/course(s)*

Note that both of these must relate to a Grand Challenge theme or specific Grand Challenge
problem.
2) **Interdisciplinary Curriculum** – Each GC Scholar Apprentice must satisfactorily complete either:

________ Living With The Lab Freshman Engineering Curriculum (ENGR 120, 121, 122) along with the corresponding integrated mathematics (MATH 240, 241, 242) and science (CHEM 100, CHEM101, PHYS 201) courses*

Or

________ Integrated Science Curriculum (all math, chemistry, biology and physics courses, including labs, required by the science major)*

And

One of the following courses*:

_____ BISC 470 – Medical Ethics
_____ HNRS 114 – Foundations of Behavioral Thought
_____ BLAW 255 – Legal Environment of Business
_____ HNRS 212 – Foundations of American Political Thought
_____ HNRS 110 – Foundations of Sociological Thought
_____ HNRS 114 – Foundations of Behavioral Thought

3) **Entrepreneurship** – One of the following entrepreneurship components:

________ A Grand Challenge-related project in the Top Dawg Business Plan Competition

Or

________ ENTR 430 - Innovative Product Design* and ENTR 460 - Innovative Venture Research *

4) **Global Dimension** – One of the following global components (please specify the program and quarter pursued):

_____ a Louisiana Tech University Study Abroad Program

_____ an approved international study program

_____ an internship with a significant global focus

_____ a research experience with a significant global focus

Or

_____ GEOG 205 - Cultural Geography*, and one of the following courses*:
For each of these options under the global dimension, students must submit a justification for how their proposed study program/internship/research experience/two courses will help them cultivate an enhanced global awareness in their chosen field.

5) **Service Learning** – One or more academic years as one of the following:

- a Supplemental Instruction tutor
- a Bulldog Achievement Resource Center (BARC) Tutor

Or

a sustained contribution for one or more years to one of the following:

- Engineers without Borders project(s)
- Louisiana Tech Engineering and Science Association (LTESA) service project(s)
- equivalent approved experience (fully describe below)

* ALL COURSES MUST BE COMPLETED WITH A GRADE OF “B” OR HIGHER IN EACH COURSE

**Curricular Connectivity** – it is the GC Scholar Apprentice’s responsibility to document how their GC Curricular Plan demonstrates intellectual and thematic connectivity across the five curricular components and a Grand Challenge theme or problem.

Questions about the **Louisiana Tech College of Engineering and Science GSCP?**

Check out the website at: [http://www.latech.edu/coes/gcscholars](http://www.latech.edu/coes/gcscholars) or contact: Dr. Jenna Carpenter, Director, Grand Challenge Scholar Program at: jenna@latech.edu