COC 3803 HP   **Engineering your Life for a 21ˢᵗ Century World**   Merrick Furst & Andy Fleming   W 3-6

This course will help students take charge of their lives in more effective and satisfying ways. Through experimentation and practice with leading edge principles and frameworks related to entrepreneurship and human development—and immersion in an intensive mentoring environment—students will learn how to deliberately shape their lives to (1) create value, (2) connect with others, and (3) develop themselves. Students will be expected to construct and conduct experiments every week related to these objectives and to share their results and learning with fellow students, the professors, and select guest-speakers/mentors. Additionally, students will complete selected readings, write two short reflection papers, and make a final "public" presentation to which they may invite guests.   *Capacity 20*

COE 3002 HP   **Intro to Microelectronics & the Nanotechnology Revolution**   John Cressler   TR 4:30-6

This course will expose UG students with little or no ECE background to a high-level understanding of the microelectronics and nanotechnology revolution and its global impact on both technology and society. Engineering, management, and science students will comprise the class, and by its nature it will be highly interdisciplinary in its appeal.   *Capacity: 15 HP students (XL)*

ECE 2803 HP   **How Does SIRI Know? Audio & Video Processing**   David Anderson   TR 9:30-11

"Any sufficiently advanced technology is indistinguishable from magic." (- Arthur C. Clark) Are smart-phones magic? Smart-phones are the meeting place of art, science, engineering, psychology, business, and entertainment. Although much of the improvement in handheld processing is a result of advances in semiconductor technology, many of the breakthroughs in science that have enabled our handheld multimedia revolution are founded in a study of how we hear and see and speak and other, equally important advances, are a result of improved algorithms for manipulating sound and images. We will explore the science, art, and magic behind smart-phones: speech recognition, music compression, image and video cameras and playback, and even phone calls.   *Capacity 20*

GRMN 4813 HP   **The Burden of the Past**   Frank Pilipp   MW 5-6:30

In this course, *The Burden of the Past: Memory, Accountability, and Soul-Searching in German and American Film*, students will examine recent films (of the past two decades) from Germany as well as some from the U.S. about historical events that have had an impact that contemporary society continues to try to come to terms with. The Holocaust, slavery, the expropriation of native Americans, the deprivation of civil and women's rights have not only been of utmost historical significance but also long-standing topics in film and literature that still cause public debates and controversies today.   *Capacity: 20*

INTA 4803 HP   **Democracy 2.0**   Peter Brecke   TR 3-4:30

This course is about governance. It starts with the premise that governance should be thought of as a particular organizational technology that functions to provide things that we as members of a society would like to have. These things include security, freedom, prosperity, social mobility, justice, and participation. The course is about how to improve the technology. The course begins by exploring the emergence of governance about 5000 BCE and the forms it has taken moving towards the modern era. We will focus on democracy and the different types of democracies that societies have developed. Then we shift to designing a better form of democratic governance. As an example, we will explore a particular form called Democracy 2.0 that has built into it the capability to change—and hopefully improve—our governmental structures, so that our system of governance functions better than it does now.   *Capacity 20*

PHIL 3127 (PUBP 4803) HP   **Biotechnology Law, Policy, and Ethics**   Roberta Berry   MW 3-4:30

This course examines challenging issues in biotechnology law, policy & ethics through multi-disciplinary course readings. The course employs an active-learning, seminar-style approach, with panels of students assigned to write and present short papers addressing the class readings. Class discussion centers on the papers presented each class. Issues addressed may include neuroimaging technologies, brain-machine interface technologies, nanotechnologies, human cloning, human genetic engineering, patenting of genes/life, genetically modified foods, DNA identification for forensic and other purposes, synthetic biology and the creation of cellular machines. All course readings will be posted on electronic reserves or available on the Web; there will be no assigned text.   *Capacity 20*

PSY 2803 HP   **Psychology of Creativity and the Arts**   Paul Verhaeghen   TR 9:30-11

This course is meant to provide and overview on what 'scientific' psychology can tell us about the creative person and the creative process. You will soon learn that we know some important things, but that we seem to know very little about what probably most interests you: where does my own creativity come from, and what can I do to become more creative? This is clearly not a DIY-creativity-enhancement course (and you will learn why it isn't). In a way, this class is a journey without end and a quest without answers, but we may glean some (hopefully) interesting vistas along the way. The main goal is not to bombard you with tidbits of information (though that will happen) but to get you thinking, critically, about the creative process in general and maybe your own creativity in particular. At the least, the course should provide you with the insight that creativity is hard to fathom, and give you a sense of how awesome and strange your own creativity and that of other people really is.   *Capacity: 20*

New Category: **CASE studies: Connecting Academic and Societal Experience**

The purpose of these courses is to create opportunities for Georgia Tech undergraduates to develop meaningful research and service relationships with partners external to Georgia Tech, whether in Atlanta or elsewhere—preferably non-profit, community-based organizations, that work, as Georgia Tech itself aspires to do, to improve the human condition.

HTS 2803 HPC   **Semester in the City: Engaging English Avenue**   Greg Nobles & Chris Burke   TR 3-4:30

This mind-on/hands-on service-learning course invites students to explore how an urban neighborhood works – and equally important, to begin working in that neighborhood. We will focus on the English Avenue community, just adjacent to the west side of Georgia Tech, a neighborhood facing serious challenges but also developing significant strategies for change. Looking at English Avenue from a variety of perspectives – historical, social, political, economic, and environmental, among others – we will seek to understand the community on its own terms, but also study it within the larger context of the city of Atlanta.   *Capacity 20*

EAS 2803 HPC   **The Urban Forest**   Monica Halka   TR 1:30-3

When you think of a city, what's the first thing that comes to mind? Probably not "forest," but many urban problems—such as smog and elevated summer temperatures—could be alleviated if people would get into that mindset. Trees minimize the heat island effect and halt soil erosion. They absorb air pollutants and harbor native birds. Atlanta's numerous fruit trees provide food that can be distributed to the city's needy. In partnership with *Trees Atlanta*, this course will explore these aspects—and more—of what our urban forest does for our extended community and what we can do to help both thrive. Scientific, economic, social, and environmental aspects will be explored.   *Capacity 20*