Course Summary
Demystifying Technology is a GenEd course that will be piloted in the fall and spring of AY 2016-17. It is novel in a number of ways.

1) Multiple faculty members will teach micro-courses that align with six themes, or Competency Modules, identified as being critical to technological literacy. Each micro-course is two weeks in length, except the coding micro-courses, which are four weeks in length. The six Competency Modules are: Algorithmic and Computational Problem Solving (2 weeks); Internet, Culture and Society (2 weeks); Global Networks and Economies (2 weeks); Coding and Applied Computer Science (4 weeks); Entrepreneurship, Creativity and Design Thinking (2 weeks); and Big Data and the Information Explosion (2 weeks).

2) In the spring of 2017, students will have the choice of different micro-courses under each Competency Module. (For the fall 2016 pilot semester, there will be no choice.)

3) Demystifying Technology may fulfill either the Human Behavior or Science and Technology requirement for GenEd.

Micro-Course Proposal Overview
Micro-course proposals will be subjected to a preliminary and full review by a committee of three members drawn from the GenEd Executive Committee and the GenEd Area Coordinators, in conjunction with the director and associate director of GenEd.

Please find below the requirements of preliminary and full review.

Preliminary Review Process
Faculty interested in developing a micro-course for inclusion in Demystifying Technology should submit a brief description of the proposed micro-course that:

a) States which competency module the micro-course will fall under (see below); and
b) Briefly describes the content to be addressed during the two or four week micro-course.

The faculty member’s preliminary proposal will be reviewed by a committee of three members drawn from the GenEd Executive Committee and the GenEd Area Coordinators, in conjunction with the director and associate director of GenEd, who will make a decision as to whether the faculty member will be invited to submit a complete micro-course proposal.

Preliminary proposals will be accepted on a rolling basis.

Full Micro-Course Review Process
Your Demystifying Tech Micro-Course Proposal should consist of the following.

a) A completed micro-course proposal form that:
   a. states whether your micro-course will require a computer lab;
   b. states which module your micro-course will fall under and how it will meet the learning goals of that competency module (see below for module learning goals);
   c. outlines how your micro-course will meet at least one of the learning outcomes for the course overall (see below for course learning goals);
d. describes how your micro-course will address core GenEd competencies (see below for competencies required for every GenEd course and deemed desirable in GenEd courses);

e. describes methods of assessing achievement of module and course learning goals and GenEd competencies selected for your micro-course that are suitable for a two-week or four-week micro-course, and outlines how opportunities to receive and act upon formative feedback have been built into your syllabus;

f. if your course falls under Internet, Culture and Society or Big Data and the Information Explosion, describes how you will address the information literacy requirement for those modules; and

g. outlines faculty background and expertise relative to proposed content.

b) A sample syllabus.

c) Demonstrative assignments or classroom exercises.

Please note that while there are no requirements for common assessments, faculty must adhere to the following guidelines in developing micro-courses for this course.

- All student work must be submitted by the final day of the micro-course to allow for timely grading as students move through the course, and to allow for reflection during the final day of the course.
- The number of assessments over a micro-course must allow not only time for the student to complete the assessment, but for faculty to provide feedback that may be used by the student in following assessments.
- While there will be no common grading schema, type or number of assessments or rubrics used, faculty must be transparent in their assessment and grading structure. Syllabi will be made available on the Blackboard site prior to the beginning of the semester and all assessments and grading schema clearly outlined on syllabi.
- Blackboard’s gradebook must be used by faculty. Each micro-course grade will constitute 1/7th of the student’s overall grade, and the overall grade will be calculated by Blackboard as a running total as the semester progresses.

Deadlines for full micro-course proposals:
- Will be set upon receipt and acceptance of preliminary proposals

Learning Outcomes for Competency Modules

Each micro-course should fall under one of the following six modules, and must meet the learning goal established for that module.

1) Algorithmic and Computational Problem Solving (2 weeks)
   - Demonstrate mathematical and algorithmic understanding of computation.

2) Internet Culture and Society (2 weeks)
   - Analyze socio-cultural impact of information technology.

3) Global Networks and Economies (2 weeks)
   - Examine how information technology impacts global forces, including international markets, communication networks, human rights and intergovernmental relations.

4) Coding and Applied Computer Science I and II (4 weeks)
   - Demonstrate basic proficiency with a selected coding platform.

5) Entrepreneurship, Creativity and Design Thinking (2 weeks)
   - Examine the application of information technology in professional and occupational contexts.
6) Big Data and the Information Explosion (2 weeks)
   - Increase awareness of the mechanics of information management and data analytics by examining data processing and modeling.

Learning Outcomes for the Course

Over the course of Demystifying Technology, students will:

1) demonstrate a basic technical understanding of an information technology platform;
2) identify personal and professional enrichment options presented by information technology;
3) examine the social and cultural context surrounding the employment of information technology; and
4) evaluate security and privacy risks associated with information technology.

Each micro-course must align with one of these course learning outcomes. We propose the following relationships between competency modules and course learning outcomes, though each micro-course may be oriented toward more than one learning outcome, and toward a second learning outcome besides that specified below.

GenEd Competencies Addressed by Demystifying Technology (from the course proposal)

Required Goals

Objective #1: Develop critical thinking and communications skills.
This course combines an introduction to how the technologies work (including a micro-course on coding) with critical analysis of the socio-cultural implications of new technologies. It will require students to analyze issues and communicate through a variety of different microcourses. Some will have formal presentations, others will have critical thinking assignments.
Objective #1: Develop Skills in Identifying, Evaluating and Using Information ("Information Literacy").
Two of the competency areas, "Global Networks and Economies" and "Big Data and the Information Explosion" will have requirements for Information Literacy to ensure that all students have experience in this important skill. Students will be required to search for valid sources, document their learnings and share the results during these specific micro-courses.

Objective #3: Promote Curiosity and Lifelong Learning.
The micro courses will engage students through interaction with varied faculty, varied learning environments and varied teaching styles. The micro courses will be designed to peak students’ interest so that they can do further independent investigations or take more in depth classes in the topics that are presented. By understanding the foundations of technology, students will have skills to interact with their everyday technologies in a more complete way and innovation will occur in the long run.

Desirable Goals

Objective #1: Develop ethical reflection, civic engagement and awareness of current issues.
The microcourses will be designed to be adaptable to innovations within this rapidly changing topic. While the seven themes will remain somewhat static, new microcourses within each theme may be introduced to keep the course relevant to technological advances and current events--assuming they adhere to the core competencies, learning objectives and assessment requirements. This structure makes it easy to address developing ethical questions around current technologies quickly and effectively.

Objective #2: Promote collaborative learning and teamwork skills.
We anticipate that there will be two programming assignments during the coding part of the class, and one of them will be a pair-programming assignment.

Objective #3: Develop an understanding of issues related to globalization.
Technology and globalization go hand-in-hand. Micro-courses in "Internet, Culture and Society" and "Networks, Economies and Global Impact" specifically focus on the role of technology in our global economy.