May 2, 2016

TO: Undergraduate Council

FROM: Benjamin C. Withers  
Associate Provost for Undergraduate Education

RE: Dual Credit Courses: EDU300, KHP230, EGR101, EGR102, EGR103

Please find under the cover of this letter materials pertaining to an application for a proposed change to the following UK courses so to function as a Dual Credit course within the University’s partnership with Fayette County Public Schools (FCPS) regarding the STEAM Academy:

- EGR 101: Engineering Exploration
- EGR 102: Fundamentals of Engineering Computing
- EGR 103: Engineering Exploration II
- EDU 300: Robotics
- KHP 230: Human Health and Wellness

The College of Engineering, in partnership with the College of Education, has confirmed that they are willing to offer the number of seats in their courses necessary to accommodate selected students from the FCPS STEAM Academy.

As per the Senate’s policy and procedure guidelines (which can be found online at http://www.uky.edu/UGE/DualCredit), the Faculty in the College of Education and in the College of Engineering have reviewed the request from the FCPS and have affirmed to offer these regularly scheduled courses as dual credit courses open to high school students. Copies of the syllabus for each of the courses are all appended. The FCPS has already identified the high school courses for the UK courses will serve as part of the high school graduation requirements.

With this letter I attest that the faculty and the Deans of the colleges mentioned above have followed the procedures outlined in the Senate documents regarding the development of a dual credit course. The supporting materials provided here document the process as outlined in the Senate guidelines.
April 8, 2016

Dr. Benjamin Withers, Associate Provost
Undergraduate Education
555 Patterson Office Tower
Lexington, KY 40506-0027

Dear Dr. Withers:

As a University of Kentucky representative serving on the Fayette County Public School’s STEAM Academy Advisory Council, I am writing to request three courses to be considered for dual credit approval for the Fall 2016 semester. It is my understanding that the following information is needed for dual credit consideration:

Name of UK Course Requested:
- EGR 101: Engineering Exploration I (1 credit)
- EGR 102: Fundamentals of Engineering Computing (2 credits)
- EGR 103: Engineering Exploration II (3 credits)

In accordance with the “Dual Credit Policy for Kentucky Public and Participating Postsecondary Institutions and Secondary Schools” guiding principles (Section XII.B.) secondary schools are responsible for using the “participating postsecondary institution’s course prefixes, numbers, titles, and descriptions for all dual credit courses” on the high school transcript, which will be indicated as follows:
- EGR 101: Engineering Exploration I
- EGR 102: Fundamentals of Engineering Computing
- EGR 103: Engineering Exploration II

In developing these dual credit offerings, faculty in the College of Education (COE) will ensure that SACs criteria are met on all facets of the implementation. On behalf of the STEAM Academy Advisory Council, I am submitting this letter as part of the documentation required for dual credit courses and as established as part of a Memorandum of Agreement between the Fayette County Public Schools and the University of Kentucky in September 2013.

Sincerely,

Dr. Laurie A. Henry
Associate Dean
UK Representative
STEAM Academy Advisory Council

cc: Dean Mary John O’Hair
March 14, 2016

To The Senate and Senate Council Representatives:

I am writing this letter in support of the proposal to permit STEAM Academy students to enroll in our Freshman Engineering courses, EGR 101, 102 (both in Fall 2016) and EGR 103 (Spring 2017). Our plans will be to pilot this program for this 2016-17 academic year by including 5 STEAM Academy students in these courses. We see this as an opportunity to expose exceptional high school students to the engineering disciplines so that they are aware of these disciplines as potential career paths.

We are very excited to collaborate with STEAM Academy on this important initiative. Please let me know if you have further questions.

Sincerely,

John Walz
Dean, College of Engineering
March 14, 2016

Dr. Kimberly W. Anderson
Associate Dean
College of Engineering
371 Ralph G. Anderson Building

Dear Dr. Anderson

I write to commit the support of the First-Year Engineering Program for the proposal to have STEAM Academy students enroll in our Engineering courses, EGR 101, 102 (both in Fall 2016) and EGR 103 (Spring 2017). We will pilot this program for the 2016-17 academic year by including 5 STEAM Academy students in these courses.

We think the STEAM Academy students will find the courses engaging and will expose them to the various engineering disciplines so that they have the opportunity to explore these fields as a possible college major. The courses include both lectures and hands-on activities. The content is taught at the freshman level and paced so that the material isn’t overwhelming.

We are very excited to be able to provide this opportunity for the STEAM Academy students. We see this as a great opportunity to expose exceptional high school students to the engineering disciplines so that they are aware of these disciplines as potential career paths.

Please let me know if we can be of further assistance.

Sincerely,

Janet Lumpp
Director, First-Year Engineering Program
Professor, Electrical and Computer Engineering
April 5, 2016

Dr. Benjamin Withers, Associate Provost
Undergraduate Education
555 Patterson Office Tower
Lexington, KY 40506-0027

Dear Dr. Withers,

As superintendent of Fayette County Public Schools, I am writing to make a request on behalf of our STEAM Academy Advisory Council. We have been working with Dr. Laurie Henry, Associate Dean in the College of Education, in the development of an undergraduate dual credit program for STEAM Academy students. Recently, we met with faculty and Dr. Kimberly Anderson, Associate Dean in the College of Engineering. We are requesting the following courses to be considered as dual credit courses for our STEAM Academy students as part of a pilot for the Fall 2016 and Spring 2017 academic semesters. It is our understanding the following information is needed for dual credit consideration:

- UK Course Requested: EGR 101: Engineering Exploration I
  - Name of High School Course: EGR 101 Engineering Exploration I

  - Name of High School Course: EGR 102 Fundamentals of Engineering Computing

- UK Course Requested: EGR 103: Engineering Exploration II
  - Name of High School Course: EGR 103 Engineering Exploration II

We are submitting this letter as part of the documentation required by the University of Kentucky Faculty Senate provision for dual credit courses. We look forward to working with the University of Kentucky in allowing our students to take advantage of a wonderful career pathway opportunity in the exploration of engineering.

Sincerely,

Emmanuel Caukh
Superintendent of Schools

AN EQUAL OPPORTUNITY SCHOOL DISTRICT
Board of Education: Melissa Bacon, Chair  ·  Amanda Ferguson, Vice Chair  ·  Douglas Barnett  ·  Daryl Love
Superintendent Emmanuel Caukh
701 East Main Street, Lexington, Kentucky 40502  ·  Phone: 859.381.4100  ·  www.fcps.net
Mailing Address: 1126 Russell Cave Rd., Lexington, Kentucky 40505
Engineering Exploration I

Instructor: Dr. Janet K. Lumpp
Office Address: 697 F. Paul Anderson Tower
Email: jklumpp@uky.edu
Office Phone: 257-4985
Office hours: Monday and Wednesday, 2 to 3:30 PM

Course Description: Engineering Exploration I introduces students to the creativity inherent in how engineers and computer scientists approach innovation, design and problem solving from blue sky brainstorming to implementing a solution. Students will work in teams, practice with tools of the trade (modeling, analysis and visualization), provide peer reviews and discuss ethical implications of creative endeavors. This class is also a process of personal discovery where students explore a variety of traditional and non-traditional study and learning methods, reflect on the results of using different methods and determine what work best for their individual learning styles and personality type. The final individual artifact is a Create Your Future project describing the student’s exploration of their own talents and aptitudes, discovery process for identifying a specific discipline and a visual presentation of their career goals. Open to students enrolled in the College of Engineering.

Prerequisites: Enrolled in the College of Engineering or MA ACT of at least 23 or equivalent.

Student Learning Outcomes:
Students will personally produce artifacts that demonstrate their engagement with the creative process. As part of this process students will:

- Define and distinguish different approaches to “creativity” as appropriate to the disciplinary practices of engineering and computer science.
- Apply the best practices (logic, laws, and constraints) of engineering and computer science.
- Demonstrate the ability to critically analyze work produced by other students in this course and co-curricular events using appropriate tools.
- Evaluate results of their own creative endeavors and, using that evaluation, reassess and refine their work.

Required Materials:


Personal computer capable of running software packages available through UK Downloads.
and freeware versions specified by the instructor.

You will also be required to read selections from the following texts and resources:


*Do What You Are: Where Personalities Meet Professions*, Stuckert Career Center Assessment

*Skill Scan* [http://www.uky.edu/hr/career-development/career-services-for-uk-employees/free-online-skill-assessment](http://www.uky.edu/hr/career-development/career-services-for-uk-employees/free-online-skill-assessment)


**Description of Course Activities and Assignments**

**Course Assignments**

Attendance will be taken each class meeting and Engineering Information Session. Homework, reflections, quizzes and the project will be submitted and graded via Canvas. No midterm exams or final exam will be given. Successful completion of the Create Your Future Project is required for a passing grade.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Percentage</th>
<th>Description</th>
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<tbody>
<tr>
<td>Attendance</td>
<td>15%</td>
<td>Class meetings and 4 Info Sessions</td>
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<tr>
<td>Homework</td>
<td>25%</td>
<td>10 assignments, 20 points each</td>
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<tr>
<td>Reflections</td>
<td>20%</td>
<td>10 assignments, 15 points each</td>
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<tr>
<td>Quizzes</td>
<td>20%</td>
<td>14 quizzes, 10 points each</td>
</tr>
<tr>
<td>Project</td>
<td>20%</td>
<td>8-10 page written and visual project</td>
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</table>
Summary Description of Course Assignments
This is a transformative course in that it not only teaches you the process of becoming a good student, but about the creative and technical skills you will need to be an inspired and inspiring engineer. You will take career skills tests and personality tests and learn how research shows that your color preferences, favorite toys, and even musical tastes can aid you in better understanding your skills and aptitudes. You will learn about yourself and what will make you successful in your possible career options and will reflect on this in weekly responses.

You will also learn lots of new techniques for study and task management including very traditional strategies like note taking and priority assessment as well as about nontraditional processes like play therapy which are also necessary to success. We will explore how different what Temple Grandin calls different thinking styles (word, pattern or visual) make learning a distinctly creative and unique process for each student.

Homework assignments will practice different problem solving or learning theory methods. Each homework will require you to define the problem to be solved, examine available information, analyze possible approaches using appropriate tools as needed, and ultimately explain how and why you would solve this problem. Each class session will include an active learning exercise with a different brainstorming or mental block busting technique.

Reflection assignments require you to consider your individual study habits, set personal goals and evaluate opportunities. They ask you to think not just practically, but imaginatively. These reflections are your opportunity to explore your right and left brain and the possibilities that await you in engineering.

The reflection writing assignments will culminate in the “Create Your Future” project in which you map out a path of both scientific and imaginative skills and accomplishments necessary to becoming a world class engineering student. This assignment asks you to reflect on the skills and strategies we have discussed throughout the semester and create a unique guide for yourself that honestly assesses and acknowledges your skills, anticipates and creatively solves future challenges, and dares to imagine yourself as the kind of inspired and inspiring engineering your university would celebrate. This is a creative writing exercise as much as it is a practical plan for future success. The project will also include a visual component where you present a collage of images representing your career goals and how you plan to achieve them. Students will present and critique their visual pieces in a Gallery Walk during the final class meeting.

Weekly quizzes will also be given to make sure you keep up with readings.

In addition to regular class meetings, students are expected to attend four of nine co-curricular Engineering Information Sessions held in the evenings. Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are
missed (excused or unexcused) per university policy.

**Course Grading**

Grading Scale

- 90 – 100% = A
- 80 – 89% = B
- 70 – 79% = C
- 60 – 69% = D
- < 60% = E

**Tentative Course Schedule**

Q = weekly quiz on reading and in-class content
R = reflection writing on readings and activities
HW = homework assignments
*Italic* = reading, lecture, discussion topics

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Assignments</th>
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<tbody>
<tr>
<td>1</td>
<td>Welcome, Review Syllabus, Introduction to Canvas&lt;br&gt; <em>Keys to Success</em>&lt;br&gt; <em>Drawing on the Right Side of the Brain: What side are you on?</em></td>
<td>Q1 R1</td>
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<tr>
<td>2</td>
<td><em>The Engineering Profession, Degree Program Introductions</em>&lt;br&gt; <em>Time Management</em>&lt;br&gt; <em>Thinking in Pictures: How do you think? Visually, words, patterns?</em></td>
<td>Q2 R2 HW1</td>
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<tr>
<td>3</td>
<td><em>Career Development Center, Degree Program Introductions</em>&lt;br&gt; <em>2D/3D Visualization: CAD Lesson 1</em>&lt;br&gt; <em>Skill Scan: What are your skills today?</em></td>
<td>Q3 HW2</td>
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<tr>
<td>4</td>
<td><em>Fall Career Fair, Degree Program Introductions</em>&lt;br&gt; <em>Creative Problem Solving Lesson 1</em>&lt;br&gt; <em>Working Together in Teams: Giving and Receiving Criticism</em></td>
<td>Q4 HW3</td>
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<td>5</td>
<td><em>2D/3D Visualization: CAD Lesson 2</em>&lt;br&gt; <em>Creative Problem Solving Lesson 2</em>&lt;br&gt; <em>Career Match: What is your personality type?</em></td>
<td>Q5 HW4</td>
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<td>6</td>
<td><em>Understanding the Teaching/Learning Process</em>&lt;br&gt; <em>2D/3D Visualization: CAD Lesson 3</em>&lt;br&gt; <em>Mind Mapping, Brainstorming and Coloring: Tapping Your Creativity</em></td>
<td>Q6 R3 HW5</td>
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<td>7</td>
<td><em>Making the Most of How You Are Taught</em>&lt;br&gt; <em>Critical Thinking: Matlab Lesson 1</em>&lt;br&gt; <em>The Marshmallow Challenge: Why Creative Kindergarteners are Smarter than Engineers</em></td>
<td>Q7 R4</td>
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<td>8</td>
<td><em>Making the Learning Process Work for You</em>&lt;br&gt; <em>Critical Thinking: Matlab Lesson 2</em>&lt;br&gt; <em>What Color is Your Parachute: Flower Exercise for Self-Assessment</em></td>
<td>Q8 R5 HW6</td>
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<td>9</td>
<td><em>Team Development: Pandemic Game</em></td>
<td>Q9</td>
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<tr>
<td>Lecture No.</td>
<td>Topic</td>
<td>Assignments</td>
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<td>10</td>
<td>Fixed vs. Growth Mindset</td>
<td>R6</td>
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<td>11</td>
<td>Student Panel</td>
<td>Q10, HW7</td>
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<td>11</td>
<td>Critical Thinking: Matlab Lesson 3</td>
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<td>11</td>
<td>Music You Love Test</td>
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<td>11</td>
<td>Ethics, Safety and Privacy</td>
<td>Q11, R7</td>
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<td>11</td>
<td>Graphical Thinking: Excel Lesson 1</td>
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<td>11</td>
<td>TRIZ Features: Imagining Ideal Solutions, Resolving Contradictions</td>
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<td>12</td>
<td>Personal Growth and Student Development</td>
<td>Q12, R8, HW8</td>
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<tr>
<td>12</td>
<td>Graphical Thinking: Excel Lesson 2</td>
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<td>12</td>
<td>Risk Taking and Fear of Failure</td>
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<td>13</td>
<td>Broadening Your Education</td>
<td>Q13, R9, HW9</td>
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<tr>
<td>13</td>
<td>Creative Problem Solving Lesson 3</td>
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<tr>
<td>13</td>
<td>Follow Your Inner Hero: Who Do You Want to Be?</td>
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<td>14</td>
<td>Undergraduate Opportunities in Engineering</td>
<td>Q14, R10, HW10</td>
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<tr>
<td>14</td>
<td>Graphical Thinking: Excel Lesson 3</td>
<td></td>
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<tr>
<td>14</td>
<td>Design Heuristics: 77 Cards</td>
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<tr>
<td>15</td>
<td>Orientation to Engineering Education</td>
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<tr>
<td>15</td>
<td>Putting it All Together: Creating Your Future</td>
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<tr>
<td>16</td>
<td>Create Your Future Project Due: Gallery Walk</td>
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</tbody>
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**Final Exam Information**
No final exam will be given. The project is due at the time and date specified for the final exam.

**Mid-term Grade**
Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar ([http://www.uky.edu/registrar/content/academic-calendar](http://www.uky.edu/registrar/content/academic-calendar))

**Submission of Assignments:**
Canvas ([uk.instructure.com](http://uk.instructure.com)) will be used for posting class announcements and assignments. Use your Link Blue login and password to access Canvas based courses. Canvas is also accessible through a smartphone app. Students are responsible for regularly checking the class Canvas site and checking email.

**Attendance Policy.**
Attendance will be taken at all class meetings and Engineering Information Sessions. In addition to regular class meetings, students are expected to attend four of nine Engineering Information Sessions held in the evenings. Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

**Excused Absences**
Students need to notify the professor of absences prior to class when possible. *Senate Rules*
5.2.4.2 defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day in the semester to add a class. Two weeks prior to the absence is reasonable, but should not be given any later. Information regarding major religious holidays may be obtained through the Ombud (859-257-3737, http://www.uky.edu/Ombud/ForStudents_ExcusedAbsences.php).

Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused) per University policy.

Per Senate Rule 5.2.4.2, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

Verification of Absences
Students may be asked to verify their absences in order for them to be considered excused. Senate Rule 5.2.4.2 states that faculty have the right to request “appropriate verification” when students claim an excused absence because of illness, or death in the family. Appropriate notification of absences due to University-related trips is required prior to the absence when feasible and in no case more than one week after the absence.

Academic Integrity
Per University policy, students shall not plagiarize, cheat, or falsify or misuse academic records. Students are expected to adhere to University policy on cheating and plagiarism in all courses. The minimum penalty for a first offense is a zero on the assignment on which the offense occurred. If the offense is considered severe or the student has other academic offenses on their record, more serious penalties, up to suspension from the University may be imposed.

Plagiarism and cheating are serious breaches of academic conduct. Each student is advised to become familiar with the various forms of academic dishonesty as explained in the Code of Student Rights and Responsibilities. Complete information can be found at the following website: http://www.uky.edu/Ombud. A plea of ignorance is not acceptable as a defense against the charge of academic dishonesty. It is important that you review this information as all ideas borrowed from others need to be properly credited.

Senate Rules 6.3.1 (see http://www.uky.edu/Faculty/Senate/ for the current set of Senate Rules) states that all academic work, written or otherwise, submitted by students to their
instructors or other academic supervisors, is expected to be the result of their own thought, research, or self-expression. In cases where students feel unsure about a question of plagiarism involving their work, they are obliged to consult their instructors on the matter before submission.

When students submit work purporting to be their own, but which in any way borrows ideas, organization, wording, or content from another source without appropriate acknowledgment of the fact, the students are guilty of plagiarism.

Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

**Accommodations due to disability**

If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguelet Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859) 257-2754 and via email at drc@uky.edu. Their web address is [http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/](http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/).
EGR 102
Fundamentals of Engineering Computing

Instructor: Dr. Janet K. Lumpp
Office Address: 697 F. Paul Anderson Tower
Email: jklumpp@uky.edu
Office Phone: 257-4985

Office hours: Monday and Wednesday, 2 to 3:30 PM

Course Description: Fundamentals of Engineering Computing introduces students to the practice and principles of computer programming and computational problem solving. Students will engage in hands-on project-based problem solving using modern computer software and hardware, with a particular emphasis on problems and techniques commonly appearing in various domains of engineering. Open to students enrolled in the College of Engineering.

Prerequisites: Enrolled in the College of Engineering or MA ACT of at least 23 or equivalent.

Credit Hours: 2 credits

Class meeting pattern: 3 hour lecture/lab once per week.

Student Learning Outcomes:

After completing this course, the student will be able to:
1. Design, document, implement, and test programs to solve basic engineering problems.
2. Apply basic algorithmic problem-solving techniques (decision structures, loops, functions)
3. Explain the architecture of computing systems.
4. Demonstrate an understanding of the representation and manipulation of data in a computer system, including basic data structures such as strings and arrays.
5. Compare and contrast computer solutions for engineering applications.

Required Materials:

Personal computer capable of running software packages available through UK Downloads and freeware versions specified by the instructor.

Description of Course Activities and Assignments

Course Assignments
Attendance will be taken each class meeting. Homework and quizzes will be submitted and graded via Canvas.
Summary Description of Course Assignments

Attendance will be taken at all class meetings to reinforce responsibility to teammates. Students are expected to withdraw from the class if more than 20% (more than 3) of the classes scheduled for the semester are missed (excused or unexcused) per university policy. Each unexcused absence results in a 1% deduction in the course grade. Homework assignments will include programming and lab reports. All assignments are due before the start of class and submitted in Canvas. Quizzes must be completed in Canvas before the start of class and cover the reading and video lecture content to emphasize vocabulary and relationships among computing concepts. For students with unexcused absences, late homework and quizzes will be accepted for one week past the due date for 50% credit. Midterm exams will cover content from homework and quizzes. The final exam will be comprehensive over all course content.

Course Grading

Grading Scale
90 – 100% = A  
80 – 89% = B  
70 – 79% = C  
60 – 69% = D  
< 60% = E

Tentative Course Schedule

Q = weekly quiz on reading and/or technical content  
HW = homework problems, drawings, calculations, etc  
Italic = Lecture, reading, on-line content topics  
Bold = Hands-on lab activities in-class

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Assignments</th>
</tr>
</thead>
</table>
| 1    | Welcome, Review Syllabus  
What is a computer? Building blocks: CPU, memory, and storage  
Downloading and installing development software |             |
| 2    | Instructions and coding; variables; basic input-output  
Basics of the Integrated Development Environment (IDE): Running and debugging programs | Q1  
HW1 |
| 3    | Number systems and data representations  
Converting units and performing calculations | Q2  
HW2 |
<table>
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<tr>
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<th><strong>4</strong></th>
<th>Boolean logic, structured programming, and control flow</th>
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<tbody>
<tr>
<td></td>
<td>Programs to make decisions</td>
<td>Q3 HW3</td>
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<td><strong>5</strong></td>
<td>Interfacing, Input and Output</td>
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<td>LEDs, switches, LCDs and graphics</td>
<td>Q4 HW4</td>
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<td>Review for Midterm Exam #1</td>
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<td><strong>6</strong></td>
<td>Loops</td>
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<td>Using random numbers; finding minimum, maximum, and average</td>
<td>Midterm Exam #1</td>
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<td><strong>7</strong></td>
<td>Functions and procedural programming</td>
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<td></td>
<td>Debugging tools and techniques</td>
<td>Q5 HW5</td>
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<td><strong>8</strong></td>
<td>Functions and procedural programming (continued)</td>
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<td>Building a simple hand-held computer game</td>
<td>Q6 HW6</td>
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<td><strong>9</strong></td>
<td>Algorithms, data structures and files</td>
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<tr>
<td></td>
<td>Processing and storing collected data</td>
<td>Q7 HW7</td>
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<tr>
<td></td>
<td><strong>10</strong></td>
<td>Algorithms, data structures and files (continued)</td>
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<td>Interactive applications</td>
<td>Q8 HW8</td>
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<td></td>
<td>Review for Midterm Exam #1</td>
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<td></td>
<td><strong>11</strong></td>
<td>Serial interfacing with hardware</td>
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<td>Interfacing with serial peripherals</td>
<td>Midterm Exam #2</td>
</tr>
<tr>
<td></td>
<td><strong>12</strong></td>
<td>Analog interfacing with hardware</td>
</tr>
<tr>
<td></td>
<td>Logging Sensor Data and Data Analysis</td>
<td>Q9 HW9</td>
</tr>
<tr>
<td></td>
<td><strong>13</strong></td>
<td>Representation of Floating-Point Numbers</td>
</tr>
<tr>
<td></td>
<td>Floating-point errors, implementing a numerical algorithm</td>
<td>Q10 HW10</td>
</tr>
<tr>
<td></td>
<td><strong>14</strong></td>
<td>Interacting with web services, networking. Social and ethical issues related to using computers.</td>
</tr>
<tr>
<td></td>
<td>“Scraping” data from a web site</td>
<td>Q11 HW11</td>
</tr>
<tr>
<td></td>
<td><strong>15</strong></td>
<td>Simulation. Modeling.</td>
</tr>
<tr>
<td></td>
<td>Monte Carlo methods.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>16</strong></td>
<td>Comprehensive Final Exam</td>
</tr>
</tbody>
</table>

**Final Exam Information**

Comprehensive final exam during the designated final exam time.

**Mid-term Grade**

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/registrar/content/academic-calendar)

**Submission of Assignments:**

**Canvas** (uk.instructure.com) will be used for posting class announcements and assignments. Use your Link Blue login and password to access Canvas based courses.
Canvas is also accessible through a smartphone app. Students are responsible for regularly checking the class Canvas site and checking email.

**Attendance Policy.**

Attendance will be taken at all class meetings. Students are expected to withdraw from the class if more than 20% (more than 3) of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

**Excused Absences (boilerplate)**

Students need to notify the professor of absences prior to class when possible. *Senate Rules 5.2.4.2* defines the following as acceptable reasons for excused absences: (a) serious illness, (b) illness or death of family member, (c) University-related trips, (d) major religious holidays, and (e) other circumstances found to fit “reasonable cause for nonattendance” by the professor.

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Per *Senate Rule 5.2.4.2*, students missing any graded work due to an excused absence are responsible: for informing the Instructor of Record about their excused absence within one week following the period of the excused absence (except where prior notification is required); and for making up the missed work. The professor must give the student an opportunity to make up the work and/or the exams missed due to an excused absence, and shall do so, if feasible, during the semester in which the absence occurred.

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Plagiarism includes reproducing someone else's work (including, but not limited to a published article, a book, a website, computer code, or a paper from a friend) without clear attribution. Plagiarism also includes the practice of employing or allowing another person to alter or revise the work, which a student submits as his/her own, whoever that other person may be. Students may discuss assignments among themselves or with an instructor or tutor, but when the actual work is done, it must be done by the student, and the student alone.

When a student's assignment involves research in outside sources or information, the student must carefully acknowledge exactly what, where and how he/she has employed them. If the words of someone else are used, the student must put quotation marks around the passage in question and add an appropriate indication of its origin. Making simple changes while leaving the organization, content, and phraseology intact is plagiaristic. However, nothing in these Rules shall apply to those ideas, which are so generally and freely circulated as to be a part of the public domain.

Please note: Any assignment you turn in may be submitted to an electronic database to check for plagiarism.

**Accommodations due to disability (boilerplate)**
If you have a documented disability that requires academic accommodations, please see me as soon as possible during scheduled office hours. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (DRC). The DRC coordinates campus disability services available to students with disabilities. It is located on the corner of Rose Street and Huguette Drive in the Multidisciplinary Science Building, Suite 407. You can reach them via phone at (859)
257-2754 and via email at drc@uky.edu. Their web address is http://www.uky.edu/StudentAffairs/DisabilityResourceCenter/.
EGR 103  
Engineering Exploration II

**Instructor:** Dr. Janet K. Lumpp  
**Office Address:** 697 F. Paul Anderson Tower  
**Email:** jklumpp@uky.edu  
**Office Phone:** 257-4985

**Course hours:** Monday and Wednesday, 2 to 3:30 PM

**Course Description:** Engineering Exploration II focuses on a semester long creative engineering design project with students working in teams to apply the skills and tools introduced in EGR 101 (or EGR 112) and EGR 102. Topics and assignments include more in depth engagement with engineering tools for modeling, analysis, visualization, programming, hardware interfacing, team development, documentation and communication. Students gain experience in project management, identifying constraints, accepting and providing critical analysis, iterating to refine their work, and technical report writing.

**Prerequisites:** Prereq: EGR 102 or equivalent; Prereq or concur: MA 113

**Student Learning Outcomes:**

Teams of students will produce, fabricate and generate artifacts that demonstrate their engagement with the creative process. As part of this process students will:
1. Define and distinguish different approaches to “creativity” in the engineering design process.
2. Apply the logic, laws, or constraints of the area of study.
3. Demonstrate the ability to critically analyze work produced by other students in this course and in co-curricular events.
4. Evaluate results of their own creative endeavors and, using that evaluation, reassess and refine their work.

**Course Outcomes:**

After completing this course, the student will be able to:
1. Work effectively in teams to define and solve design problems.
2. Implement a design cycle including requirements, problem statement, solution generation, evaluation and validation.
3. Document the decision making process, selection of tools, test methods and results through oral, visual and written presentations.

**Required Materials:**


Personal computer capable of running software packages available through UK Downloads
and freeware versions specified by the instructor.

**Description of Course Activities and Assignments**

**Course Assignments**

Attendance will be taken each class meeting and Engineering Information Session. Homework, reflections, quizzes and the project report will be submitted and graded via Canvas. No final exam will be given.

<table>
<thead>
<tr>
<th>Attendance</th>
<th>10%</th>
<th>Class meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Homework</td>
<td>20%</td>
<td>10 assignments, 20 points each</td>
</tr>
<tr>
<td>Quizzes</td>
<td>20%</td>
<td>10 quizzes, 10 points each</td>
</tr>
<tr>
<td>Midterm Exams</td>
<td>20%</td>
<td>2 exams, 50 points each</td>
</tr>
<tr>
<td>Technical Documentation</td>
<td>20%</td>
<td>Design reviews and progress reports</td>
</tr>
<tr>
<td>Final Report</td>
<td>10%</td>
<td>Demonstration and presentation</td>
</tr>
</tbody>
</table>

**Summary Description of Course Assignments**

Homework assignments will advance the application of tools such as programming, modeling, analysis and visualization tools which are transformation-focused because they allow students to take risks, make mistakes and undergo peer review without the expense or safety consequences of physical modeling. Quizzes over reading and lecture content will emphasize vocabulary and relationships among design process steps to assess engagement with the material. Midterm exams will cover content from homework and quizzes. Attendance will be taken at all class meetings to reinforce responsibility to teammates. Students are expected to withdraw from the class if more than 20% of the classes scheduled for the semester are missed (excused or unexcused) per university policy.

Engineering design processes are sequences of steps applicable to a wide range of technical and personal decisions. The idea generation phase of the creative design process is transformation-focused phase where team members contribute possible methods, techniques and materials at the risk of rejection or exposing weaknesses in their knowledge, skills and abilities. TAs, Instructors and peers will conduct design reviews and evaluate progress reports. Preliminary and critical design reviews are common methods for engineers to enforce constraint-focused design where the product is evaluated against applicable laws and the specified requirements in order to be considered practical, effective, valuable, safe and satisfactory. Teams will have the opportunity to incorporate changes to refine and improve their artifacts after each design review. As a final project presentation, each team will prepare an oral presentation and demonstration of the working prototype. The prototype is the primary product-focused artifact for the semester.

**Course Grading**

**Grading Scale**

- 90 – 100% = A
- 80 – 89% = B
70 – 79% = C
60 – 69% = D
< 60% = E

**Tentative Course Schedule**

Q = weekly quiz on reading and/or technical content
HW = homework problems, drawings, calculations, etc
*Italic* = Lecture, reading, on-line content topics
**Bold** = Hands-on lab activities in-class

<table>
<thead>
<tr>
<th>Week</th>
<th>Topics</th>
<th>Assignments</th>
</tr>
</thead>
</table>
| 1    | *Welcome, Review Syllabus*  
*How Engineers Design*  
*Introduction to CATME team software* | Q1 |
| 2    | *Working in Teams – Organization, Management*  
*CAD Lesson 1 (HW1)*  
*Introduction of Teams and Project Assignments* | HW1 |
| 3    | *Design Process – Requirements, Client Interaction, Idea Generation*  
*CAD Lesson 2 (HW2)*  
*Requirements, Objectives, Constraints Lab* | Q2 |
| 4    | *Design Process – Decision-making, Iterating*  
*CAD Lesson 3 (HW3)*  
*Idea Generation, Metrics, Decision-making Lab* | HW2 |
| 5    | *Design Review Process*  
*Matlab Lesson 1 (HW4)*  
*Project Development Lab* | Q3 |
| 6    | *Project Management – Project Planning, Cost Estimating*  
*Matlab Lesson 2 (HW5)*  
*Requirements Review* | HW3 |
| 7    | *Review for Midterm Exam #1*  
*Project Development Lab* | Midterm  
Exam #1 |
| 8    | *Design for X*  
*Matlab Lesson 3 (HW6)*  
*Design for Manufacturability Lab* | Q4  
HW6 |
| 9    | *Failure & Risk*  
*Excel Lesson 1 (HW7)*  
*Preliminary Design Review* | Q5  
HW7 |
| 10   | *Intellectual Property*  
*Excel Lesson 2 (HW8)*  
*Project Development Lab* | Q6  
HW8 |
| 11   | *Ethics, Safety, Environment*  
*Excel Lesson 3 (HW9)*  
*Critical Design Review* | Q7  
HW9 |
| 12   | *Economics* | Q8 |

Q10
Final Exam Information

No final exam will be given. The project report is due at the time and date specified for the final exam.

Mid-term Grade

Mid-term grades will be posted in myUK by the deadline established in the Academic Calendar (http://www.uky.edu/registrar/content/academic-calendar)

Submission of Assignments:
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DUAL CREDIT AGREEMENT BETWEEN

UNIVERSITY OF KENTUCKY

AND

FAYETTE COUNTY PUBLIC SCHOOLS

In an effort to provide a seamless path of education for high school students seeking the academic rigor of a Research I institution, the University of Kentucky (UK) and the Fayette County Public School (FCPS) district have agreed to cooperate in an initiative for secondary students to receive dual credit in both the high school and University curriculum requirements. For the purposes of this agreement, dual credit is defined as a college-level course of student offered to high school students. This definition is consistent with Kentucky Revised Statute 164.002 and the University Faculty Senate Rules 3.2.0 and 4.3.1.3.4.

This agreement specifies the roles and responsibilities of UK and FCPS in the dual credit partnership for the STEAM Academy, a new school created within the FCPS district. The courses offered in this program will be in accord with the current UK Senate Rules. High school students choosing to earn UK credit through this dual credit partnership must meet the University’s standards for acceptance as a non-degree-seeking student each semester, and upon graduation from high school each student will need to apply to the University for degree-seeking status. Upon enrollment at UK as a degree-seeking student - or at any university that accepts college credit successfully achieved at UK, the high school student participating in this dual credit program will have the option of completing his/her college program in less time.

1. UK faculty will teach the curricula for all academic dual credit courses in this program.

2. The high school students who choose to earn the UK course credit will have UK course titles posted to their UK transcript regardless of the title of their high school course.

   a. An official UK syllabus will be prepared for each dual credit course. One copy will be submitted to the UK department and individual copies will be given to students who enroll in the UK course.

   b. Enrollment in the UK course will be allowed only by permission of the UK instructor of that course.

3. Staff from the high schools in conjunction with the Enrollment Management Office at UK will be responsible for enrolling secondary students in dual credit classes.

   Enrollment Management will appoint a single point of contact to manage the admission, registration and grading process. 
a. UK’s Enrollment Management staff will be responsible for informing the schools’ staff and teachers of the current requirements, costs and fees associated with enrollment at UK as a participant in the dual credit initiative.

b. The schools’ staff will be responsible for gathering from the students who choose to participate in the dual credit initiative all the information needed for the UK short application form (see special UK application form in Appendix A) and will adhere to due dates and guidelines, as outlined in the UK Bulletin.

c. UK’s Enrollment Management staff (in collaboration with the appropriate UK department and college staff) will be responsible for enrolling the students in the dual credit course section at UK.

d. UK COMPASS scores, ACT equivalents or UK Placement Tests will be needed for certain courses at UK. The UK Division of Undergraduate Education professional advising staff (in Undergraduate Studies) will be responsible for working with the UK department and college staff to assure appropriate placement and/or supplemental instruction if any is required for each student.

e. Students who chose to participate in the dual credit initiative will be assessed the rate of the non-degree-seeking, part-time student as indicated on the UK website for regular tuition and fees.

f. UK Enrollment staff will work with each student seeking UK college credit for the course to establish deadlines, bill for payment, and communicate tuition rates and refund policies. Currently enrolled high school students who apply to take a UK course do not pay the usual application fee.

g. The schools’ staff will be responsible for obtaining parental permission for release of all grades in the dual credit class, if necessary, to the University of Kentucky.

4. At midterm and at the end of each semester, the students will receive a grade from their UK instructors via the MyUK portal.

5. The UK department is responsible for periodic assessment of student artifacts to ensure comparable learning with traditional UK courses.

6. A high school student enrolled in the UK course will receive a grade using the UK grading scale and it should be a similar grade that is earned in the student’s school’s dual credit course. Students choosing to participate in the UK dual credit program must receive credit at both institutions. Enrollment and dual credit will be based on consent of the course instructor, the school’s guidance counselor and principal.

7. The student or the school system will be responsible for purchasing required course materials and providing access to any library or other support resources necessary for student success as outlined by SACS guidelines.

8. The schools’ dual credit students will also complete an evaluation for each course taken as a dual credit course. Evaluation forms (whether on paper or in electronic format) will be handled in a private and secure manner as required by UK Senate Rules. Results will be submitted as soon as coursework is completed.
9. Students enrolled in dual credit courses will adhere to the regular UK Academic Calendar. Should any one of the schools be closed for weather related occurrences, all UK coursework must be made up in a manner approved by the instructor. UK holidays will be observed by UK employees.

10. Tuition and other charges for the dual credit courses will be consistent with the tuition rates and policies of UK. A 50% Dual Credit Tuition Scholarship will be offered to students enrolled in dual credit courses. All instructional costs are covered by the UK College of Education.

11. Although the parties have attempted to address the issues needed for a successful initiative, both parties acknowledge that this is a new undertaking and agree to reasonably cooperate to resolve unaddressed needs.

This agreement shall remain in effect until one or both parties decide to terminate the agreement or until June 30, 2016, whichever comes first. The letter of intent showing the list of dual credit courses must be reviewed prior to the beginning of the UK semester to ensure that current course offerings have been cross-referenced with the course expectations, skills and competencies to the satisfaction of both parties agreeing to this document.

Thomas Shelton, Superintendent
Fayette County Public Schools

Benjamin Withers, Interim Associate Provost for Undergraduate Education, University of Kentucky

Christine Riordan, Provost
University of Kentucky
# High School Student – Non-Degree

**undergraduate application for admission**

Office of Undergraduate Admission and University Registrar  
100 W.D. Funkhouser Bldg. Lexington, Kentucky 40506-0054  
www.uky.edu/Admissions

## FOR OFFICIAL USE ONLY
Date Received ___________________ No Fee Required — HS ND

## ADMISSION DEADLINES

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Spring</th>
<th>Summer I (May)</th>
<th>Summer II (June/July)</th>
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<tbody>
<tr>
<td></td>
<td>August 1</td>
<td>December 1</td>
<td>April 15</td>
<td>May 15</td>
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## COMPLETE ALL FIELDS BELOW

### 1. NAME

<table>
<thead>
<tr>
<th>First Name</th>
<th>Middle Name</th>
<th>Last Name</th>
</tr>
</thead>
</table>

This name will be used to establish your permanent record. Do not use nicknames.

### 2. SOCIAL SECURITY NUMBER (OPTIONAL)

| ____________________________ |   |
| ____________________________ |   |

Please provide correctly.

### 3.
I certify that the information given on this application is complete and correct. Deliberate misrepresentation may subject me to immediate dismissal from the University of Kentucky and revocation of credits or degrees earned. All applicants meeting the appropriate academic requirements and technical standards shall be considered equally for admission to any academic program, regardless of economic or social status and will not be discriminated against on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, marital status, age, veteran status, or physical or mental disability.

**APPLICANT'S SIGNATURE**  
__________________________  
DATE __________________________

### 4.

<table>
<thead>
<tr>
<th>Preferred Name</th>
<th>Maiden Name</th>
<th>Other Important if name is different on transcript or test scores</th>
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<tbody>
<tr>
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### 5. ETHNIC BACKGROUND (OPTIONAL)

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### 6. DATE OF BIRTH

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### 7. GENDER

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<td>Male [M]</td>
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### 8. CITIZENSHIP

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<th>(a) Country of Citizenship</th>
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If not a US Citizen but a permanent resident, please provide # below and submit copy of Permanent Resident card. Please Note: Permanent residents may be subject to an English requirement.

<table>
<thead>
<tr>
<th>(b) Resident Alien Number</th>
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### 9. COUNTY

(KY Residents Only)

<table>
<thead>
<tr>
<th>County Name</th>
</tr>
</thead>
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*continued on back*
High School Student – Non-Degree
undergraduate application for admission

10. CURRENT MAILING ADDRESS, PERMANENT MAILING ADDRESS AND CONTACT INFORMATION

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<th>State</th>
<th>Zip</th>
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11. COLLEGE AND MAJOR

US | NDUS | NODES

UK College | Major | Degree Code

High School Student – Non-Degree

12. TERM
(Select beginning term only)

- Summer I (May)
- Summer II (June-July)
- Fall (August-December)
- Spring (January-May)

Year

13. RESIDENCY
(Enter X in appropriate box)

- Have you lived in Kentucky for the last 12 months?
  - Yes
  - No

- Have you received financial support from an individual outside of Kentucky during the last 12 months?
  - Yes
  - No

- Are you a resident of Kentucky?
  - Yes
  - No

- Does either parent (or legal guardian) live in Kentucky?
  - Yes
  - No

14. DOCUMENTATION

As a high school student applying for non-degree seeking admission, you MUST supply an official high school transcript and have your guidance counselor and principal sign this application:

- Official high school transcript

__________________________
Signature, High School Guidance Counselor

__________________________
Signature, High School Principal

SEND COMPLETED APPLICATION AND OTHER DOCUMENTATION (see Box 14) TO:

Michelle Nordin
Office of Undergraduate Admission and University Registrar
University of Kentucky
100 W.D. Funkhouser Bldg.
Lexington, Kentucky 40506-0054

EQUAL OPPORTUNITY

The University of Kentucky is committed to a policy of providing educational opportunities to all qualified students regardless of economic or social status and will not discriminate on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, marital status, age, veteran status, or physical or mental disability. Compliance with the Title IX of the Educational Amendments of 1972, which prohibits sex discrimination, and with Title VI of the Civil Rights Act of 1964 is coordinated by the Equal Opportunity Office, Main Bldg., University of Kentucky, Lexington, KY 40506-0052, (859) 257-8927.
MEMORANDUM:

DATE: May 26, 2015

TO: Undergraduate Council

FROM: Mary John O’Hair, Dean

RE: Dual Credit Partnership with Fayette County Public Schools

CC: Ben Withers, Associate Provost for Undergraduate Education

It is with great pleasure that I write in support of approval of two additional courses for dual credit with Fayette County Public Schools (FCPS) based on the initial dual credit partnership agreement established in May 2013.

The College of Education will oversee the instruction of EDU 300: Robotics and KHP 230: Human Health and Wellness offered to FCPS STEAM Academy students during the Summer 1 (2015) academic session. Faculty from the STEM Education Department and Kinesiology and Health Promotion Department will serve as the instructor of record and provide the instruction for these two courses respectively.

We are proud to have our faculty involved in this dual credit partnership with the Fayette County Public Schools.
May 4, 2015

Dr. Benjamin Withers, Associate Provost
Undergraduate Education
555 Patterson Office Tower
Lexington, KY 40506-0027

Dear Dr. Withers:

As a University of Kentucky representative serving on the Fayette County Public School’s STEAM Academy Advisory Council, I am writing to request two courses in the College of Education be considered for dual credit. It is my understanding that the following information is needed for dual credit consideration:

Name of UK Course Requested:
- KHP 230: Human Health and Wellness (Instructor: Elizabeth Fettrow, Assistant Professor in Department of Kinesiology & Health Promotion)
- EDU 300: Robotics (Instructor: Margaret Mohr-Schroeder, Associate Professor in STEM Education)

Name of High School Course:
- Health
- Foundations of Robotics

In developing these dual credit offerings, faculty in the College of Education (COE) will ensure that SACs criteria are met on all facets of the implementation. On behalf of the STEAM Academy Advisory Council, I am submitting this letter as part of the documentation required for dual credit courses and as established as part of a Memorandum of Agreement between the Fayette County Public Schools and the University of Kentucky in September 2013.

Sincerely,

Dr. Laurie A. Henry
Associate Dean
UK Representative
STEAM Academy Advisory Council

cc: Dean Mary John O’Hair
May 22, 2015

Dear University of Kentucky,

This letter is to provide support for the approval of two new dual credit courses between UK and FCPS. The STEAM Academy has reviewed the syllabi for KHP 230 and EDU 300 and would like to offer these courses to our students through a dual credit relationship with UK. Specifically, we would provide .5 high school credits in Health for the University of Kentucky KHP 230 course and we would provide 1 high school credit in Introduction to Robotics for the UK EDL 300 course.

Thank you for considering these dual credit courses and supporting the partnership between our educational organizations.

Dr. Marlene Helm
Interim Superintendent
Fayette County Public Schools
May 7, 2015

Drs. Laurie Henry and Justin Bathon
University Directors of STEAM Academy

Dear Dr. Henry and Dr. Bathon:

The Department of Kinesiology and Health Promotion is pleased to offer KHP 230: Human Health and Wellness to STEAM Academy students during the summer of 2015. This course is an introductory health course that is appropriate for freshmen and sophomore college students. We feel an introductory health course is an important course for college students and high school students. We are confident that Dr. Fettrow, who will be teaching the class, will do an excellent job of presenting this material to high school students. The course will address health knowledge and skills in a number of areas. Students will have an opportunity for hands-on, activated learning so that they may practice a number of health-related skills.

The faculty of the Department of Kinesiology and Health Promotion are supportive of this course being offered to STEAM Academy students and for offering this as a dual-credit course (credit in college and high school). We are excited about this opportunity to teach health to these students.

If you have any questions, please contact me.

Sincerely,

Melody Noland

Melody Noland, Ph.D., C.H.E.S.
George and Betty Blanda Endowed Professor in Education,
Department Chair, and Professor of Health Education
DUAL CREDIT AGREEMENT BETWEEN

UNIVERSITY OF KENTUCKY

AND

FAYETTE COUNTY PUBLIC SCHOOLS

In an effort to provide a seamless path of education for high school students seeking the academic rigor of a Research I institution, the University of Kentucky (UK) and the Fayette County Public School (FCPS) district have agreed to cooperate in an initiative for secondary students to receive dual credit in both the high school and University curriculum requirements. For the purposes of this agreement, dual credit is defined as a college-level course of student offered to high school students. This definition is consistent with Kentucky Revised Statute 164.002 and the University Faculty Senate Rules 3.2.0 and 4.3.1.3.4.

This agreement specifies the roles and responsibilities of UK and FCPS in the dual credit partnership for the STEAM Academy, a new school created within the FCPS district. The courses offered in this program will be in accord with the current UK Senate Rules. High school students choosing to earn UK credit through this dual credit partnership must meet the University’s standards for acceptance as a non-degree-seeking student each semester, and upon graduation from high school each student will need to apply to the University for degree-seeking status. Upon enrollment at UK as a degree-seeking student - or at any university that accepts college credit successfully achieved at UK, the high school student participating in this dual credit program will have the option of completing his/her college program in less time.

1. UK faculty will teach the curricula for all academic dual credit courses in this program.

2. The high school students who choose to earn the UK course credit will have UK course titles posted to their UK transcript regardless of the title of their high school course.
   
   a. An official UK syllabus will be prepared for each dual credit course. One copy will be submitted to the UK department and individual copies will be given to students who enroll in the UK course.
   
   b. Enrollment in the UK course will be allowed only by permission of the UK instructor of that course.

3. Staff from the high schools in conjunction with the Enrollment Management Office at UK will be responsible for enrolling secondary students in dual credit classes.

   Enrollment Management will appoint a single point of contact to manage the admission, registration and grading process.
a. UK’s Enrollment Management staff will be responsible for informing the schools’ staff and teachers of the current requirements, costs and fees associated with enrollment at UK as a participant in the dual credit initiative.

b. The schools’ staff will be responsible for gathering from the students who choose to participate in the dual credit initiative all the information needed for the UK short application form (see special UK application form in Appendix A) and will adhere to due dates and guidelines, as outlined in the UK Bulletin.

c. UK’s Enrollment Management staff (in collaboration with the appropriate UK department and college staff) will be responsible for enrolling the students in the dual credit course section at UK.

d. UK COMPASS scores, ACT equivalents or UK Placement Tests will be needed for certain courses at UK. The UK Division of Undergraduate Education professional advising staff (in Undergraduate Studies) will be responsible for working with the UK department and college staff to assure appropriate placement and/or supplemental instruction if any is required for each student.

e. Students who chose to participate in the dual credit initiative will be assessed the rate of the non-degree-seeking, part-time student as indicated on the UK website for regular tuition and fees.

f. UK Enrollment staff will work with each student seeking UK college credit for the course to establish deadlines, bill for payment, and communicate tuition rates and refund policies. Currently enrolled high school students who apply to take a UK course do not pay the usual application fee.

g. The schools’ staff will be responsible for obtaining parental permission for release of all grades in the dual credit class, if necessary, to the University of Kentucky.

4. At midterm and at the end of each semester, the students will receive a grade from their UK instructors via the MyUK portal.

5. The UK department is responsible for periodic assessment of student artifacts to ensure comparable learning with traditional UK courses.

6. A high school student enrolled in the UK course will receive a grade using the UK grading scale and it should be a similar grade that is earned in the student’s school’s dual credit course. Students choosing to participate in the UK dual credit program must receive credit at both institutions. Enrollment and dual credit will be based on consent of the course instructor, the school’s guidance counselor and principal.

7. The student or the school system will be responsible for purchasing required course materials and providing access to any library or other support resources necessary for student success as outlined by SACS guidelines.

8. The schools’ dual credit students will also complete an evaluation for each course taken as a dual credit course. Evaluation forms (whether on paper or in electronic format) will be handled in a private and secure manner as required by UK Senate Rules. Results will be submitted as soon as coursework is completed.
9. Students enrolled in dual credit courses will adhere to the regular UK Academic Calendar. Should any one of the schools be closed for weather related occurrences, all UK coursework must be made up in a manner approved by the instructor. UK holidays will be observed by UK employees.

10. Tuition and other charges for the dual credit courses will be consistent with the tuition rates and policies of UK. A 50% Dual Credit Tuition Scholarship will be offered to students enrolled in dual credit courses. All instructional costs are covered by the UK College of Education.

11. Although the parties have attempted to address the issues needed for a successful initiative, both parties acknowledge that this is a new undertaking and agree to reasonably cooperate to resolve unaddressed needs.

This agreement shall remain in effect until one or both parties decide to terminate the agreement or until June 30, 2016, whichever comes first. The letter of intent showing the list of dual credit courses must be reviewed prior to the beginning of the UK semester to ensure that current course offerings have been cross-referenced with the course expectations, skills and competencies to the satisfaction of both parties agreeing to this document.

---

Thomas Shelton, Superintendent  
Fayette County Public Schools  
Signature  
9-3-13  
Date

Benjamin Withers, Interim Associate Provost for Undergraduate Education, University of Kentucky  
Signature  
9/9/13  
Date

Christine Riordan, Provost  
University of Kentucky  
Signature  
9/9/13  
Date
### High School Student – Non-Degree
undergraduate application for admission

Office of Undergraduate Admission and University Registrar
109 W.D. Funkhouser Bldg, Lexington, Kentucky 40506-0054
www.uky.edu/Admissions

**FOR OFFICIAL USE ONLY**
Date Received: [ ] No Fee Required – HS ND

### ADMISSION DEADLINES

<table>
<thead>
<tr>
<th>Fall</th>
<th>Spring</th>
<th>Summer I (May)</th>
<th>Summer II (June/July)</th>
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<tr>
<td>August 1</td>
<td>December 1</td>
<td>April 15</td>
<td>May 15</td>
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### COMPLETE ALL FIELDS BELOW

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<tr>
<th>1. NAME</th>
<th>2. SOCIAL SECURITY NUMBER (OPTIONAL)</th>
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<tr>
<td>First Name</td>
<td>Middle Name</td>
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<td>This name will be used to establish your permanent record. Do not use nicknames.</td>
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<td>I certify that the information given on this application is complete and correct. Deliberate misrepresentation may subject me to immediate dismissal from the University of Kentucky and revocation of credits or degrees earned. All applicants meeting the appropriate academic requirements and technical standards shall be considered equally for admission to any academic program, regardless of economic or social status and will not be discriminated against on the basis of race, color, ethnic origin, national origin, creed, religion, political belief, sex, sexual orientation, marital status, age, veteran status, or physical or mental disability.</td>
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<th>4.</th>
<th>5. ETHNIC BACKGROUND (OPTIONAL)</th>
<th>6. DATE OF BIRTH</th>
<th>7. GENDER</th>
<th>8. CITIZENSHIP</th>
<th>9. COUNTY</th>
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<tr>
<td>Preferred Name</td>
<td>(Enter X in Appropriate Box)</td>
<td>(Enter X in Appropriate Box)</td>
<td>(Enter X in Appropriate Box)</td>
<td>(a) Country of Citizenship</td>
<td>(KY Residents Only)</td>
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<tr>
<td>Maiden Name</td>
<td>African-American [B]</td>
<td>Female [F]</td>
<td>If not a UA Citizen but a permanent resident, please provide below and submit copy of Permanent Resident card.</td>
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<tr>
<td>Other</td>
<td>Asian or Pacific Islander [O]</td>
<td>Male [M]</td>
<td>Please Note: Permanent residents may be subject to an English requirement.</td>
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<td>Important if name is different on transcript or test scores.</td>
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<td>(b) Resident Alien Number</td>
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<td>American Indian [A]</td>
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<td>Alaskan Native [L]</td>
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<td>Other [X]</td>
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- continued on back -
High School Student – Non-Degree
undergraduate application for admission

10. CURRENT MAILING ADDRESS, PERMANENT MAILING ADDRESS AND CONTACT INFORMATION

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<th>State</th>
<th>Zip</th>
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<th>Permanent Address</th>
<th>City</th>
<th>State</th>
<th>Zip</th>
<th>Country (First U.S. Address)</th>
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<th>Mother</th>
<th>Guardian</th>
<th>Spouse</th>
<th>Other</th>
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US  NDUS  NODE

UK College  Major  Degree Code

High School Student – Non-Degree

12. TERM
(Select beginning term only)

☐ Summer I (May)
☐ Summer II (June-July)
☐ Fall (August-December)
☐ Spring (January-May)

Year

13. RESIDENCY
(Enter X in Appropriate Box)
You must complete all four questions.

Have you lived in Kentucky for the last 12 months?
☐ Yes  ☐ No

Have you received financial support from an individual outside of Kentucky during the last 12 months?
☐ Yes  ☐ No

Are you a resident of Kentucky?
☐ Yes  ☐ No

Does either parent (or legal guardian) live in Kentucky?
☐ Yes  ☐ No

14. DOCUMENTATION
As a high school student applying for non-degree seeking admission, you MUST supply an official high school transcript and have your guidance counselor and principal sign this application:

- Official high school transcript

Signature, High School Guidance Counselor

Signature, High School Principal

SEND COMPLETED APPLICATION AND OTHER DOCUMENTATION (see Box 14) TO:

Michelle Nordin
Office of Undergraduate Admission and University Registrar
University of Kentucky
100 W.D. Funkhouser Bldg.
Lexington, Kentucky 40506-0054

EQUAL OPPORTUNITY

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EDU 300: Robotics
Summer 2015 SYLLABUS

“Research and Reflection for Learning and Leading”

“...In the era of standardized testing, I think we are losing sight of the main goal of education in my mind—to teach students how to learn on their own. We need to teach students how to be curious and ask a question, how to frame the question, how to research the question, how to validate their answer to the question, and how to communicate that answer to others. This has little to do with the content and a lot to do with the approach. ... There is nothing more rewarding than having a group of middle school students come back to the classroom during recess so that they can further investigate the complexities of torque or energy transfer (a common occurrence in Barbara's class). That is when you know things are going right. Students (of all ages) should be excited to go to school and learn—...”

-Chris Rogers, Tufts Center for Engineering Education Outreach, in Introduction to Physics by Design by Barbara Bratzel

"...With video games, kids will go back and do it a hundred times. They'll fail until they win...Failure in an academic environment is depressing. Failure in a video game is completely aspirational..."  
-New York Times 9/19/10, "Video Games Win a Beachhead in the Classroom"

Instructor: Margaret Mohr-Schroeder and Bruce Walcott
Office Hours/Location: Office hours by appointment/ 105 Taylor Education Building
Phone Number: (859) 257-3073
Virtual Office Hours: Arranged individually through email; Adobe Connect and Skype access also available
Email: m.mohr@uky.edu
Preferred method for contacting instructor: Email or Canvas
Anticipated Response Time: 48 hours
Technological Requirements: Computer with Internet access and VPN or access to UK computer facilities, webcam with microphone headset
For Technological assistance: Contact TASC at http://www.uky.edu/TASC or call 859.257.8272
Contact Information Technology Customer Service Center http://www.uky.edu/UKIT or 859.257.1300
UK College of Education Professional Themes
This course will address the four themes of the conceptual framework for the UK professional education unit: research, reflection, learning, and leading. Students will be given the opportunity to review, analyze, discuss, and apply research from diverse perspectives in education, including professional scholarship and practitioner inquiry, in order to reflect on their own practices as they study, observe, and practice in P-12 school and university classrooms. Reflection will also be integrated into students’ learning opportunities through the production of written essays and analyses of observation and teaching experiences to help students take advantage of the analytical and problem-solving skills that comprise critical professional reflection on one’s own teaching. This course emphasizes the commitment of the professional education unit to ensure that its graduates move into their professional lives equipped for life-long learning as educators who will be active in leading colleagues in their schools, districts, and professional organizations. The ultimate goal in addressing these four themes is to produce teacher leaders who work together to improve student learning among diverse populations and improve education in Kentucky and beyond.

Course Overview/Objectives:

Prerequisites:
Graduate standing

Course Overview:
EDU 300 will introduce students to the fundamental concepts of robots and give them the opportunity to explore robots, engineering concepts, engineering design, robotics curricular materials for K12 students, ethical concerns with robots, and assessing in the classroom. Topics include how robots move, sense, and perceive the world around them. Students will construct and program robots. No previous computer programming or electronics experience is necessary!!

Student Learning Outcomes:
• Gain familiarity with the interdisciplinary field of robotics and its growing impact on
society.

- Develop the ability to direct robots using computer languages for communication.
- Become familiar with widely used computer programming constructs including variables, assignment, looping, and conditional statements.
- Gained aptitude in understanding, designing, and evaluating patterns of logic and reasoning expressed as algorithms.
- Learn to practice reflection on topics related to disciplinary content, including ethics.
- Have become more comfortable and effective working in a team setting, particularly in analyzing and communicating logical and computational ideas with others.

**Course Delivery**

This course is designed as a hybrid course. Course participants will attend class on campus and will participate in online discussions, collaborate on group projects, and work on independent research projects during the distance learning segment of the course.

**Course Assessment Tasks**

*The following assessments align with the Kentucky Teacher (Advanced) Standards, NCATE/NCTM Standards, NCATE/NSTA Standards, Kentucky Core Academic Standards (as they become available), University of Kentucky Teacher Leader Standards, University of Kentucky Action Research Standards, University of Kentucky Functional Skills and Dispositions, University of Kentucky Technology Standards, ISTE, and EPSB themes.*

Assignments must be submitted on or before the due dates given in the course schedule. **Five percent will be deducted from the value of an assignment for each day it is late,** unless prior arrangements have been made with the instructor. Full descriptions of these assignments and evaluation rubrics for each are appended to this syllabus. Major course tasks are as follows:

<table>
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<tr>
<th>Task</th>
<th>Task Description</th>
<th>Standards Alignment</th>
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<tr>
<td><strong>See Blue STEM Camp</strong></td>
<td>Through service outreach experiences, the class will introduce robots to rising middle school students during the See Blue STEM Camp. Each student in the course is required to commit in advance and to fully participate in the camp. The dates this year are June 8-12. Food and snacks are provided.</td>
<td>UKTLS 3, FSD 1, COET 1,2,3,4, KTS 1,2,6, NCATE/NCTM 4, NCATE/NSTA 4</td>
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<tr>
<td><strong>Reflections</strong></td>
<td>Students will write critical or reflective responses to primary readings; write reflections on course assignments and in-class discussions and activities; participate in oral discussion - individual or group; participate in online discussions; share</td>
<td>KTS 8, 10, UKTLS 2, FSD 1,3,5</td>
</tr>
</tbody>
</table>
presentations - individual, group or both.

| Robotics Coding Assignments | Students will be expected to spend at least 20 hours coding and completing challenges prior to the See Blue STEM Camp. Students will be asked to submit video of the challenges if they are not completed during the course. | KTS 1, 2, 6, 10 | UKTLS 1, 3, 4, 5, 7 | FSD 1,3 | COET 1,2,3,4,5,6 | NCATE/NCTM 4 | NCATE/NSTA 1,4,5,6,8 |

**Course Policies**

**Addressing Themes of Diversity, Assessment, and Technology**
All UK professional education programs address and affirm the value of diversity in education, the use of technology to support all aspects of instructional programming, and the importance of attaining high levels of skill in assessing the outcomes of instruction. This course will provide students an opportunity to demonstrate attention to these themes and reflect on the mechanisms that this course has provided to demonstrate improved skills in these areas.

**Attendance**
Attendance of individuals in the class is required, and university rules regarding absences will be followed. Exchange of ideas is essential for the learning that occurs in this class. In most class meetings, students work in pairs and/or in groups. The absence of one individual affects the performance of all persons working in the group. If you are absent, it is each student’s responsibility to make up the work and provide evidence that the absence was excused. Without this evidence, the absence will be considered unexcused. Two tardies, whether arriving late or leaving early, equals one unexcused absence. I reserve the right to lower your final grade one letter grade your grade for each unexcused absence.

Excused Absences: S.R. 5.2.4.2 defines the following as acceptable reasons for excused absences:
1) serious illness;
2) illness or death of family member;
3) University-related trips;
4) major religious holidays;
5) other circumstances your instructor finds to be "reasonable cause for nonattendance."

Students anticipating an absence for a major religious holiday are responsible for notifying the instructor in writing of anticipated absences due to their observance of such holidays no later than the last day for adding a class. Information regarding dates of major religious holidays may be obtained through the religious liaison, Mr. Jake Karnes (257-2754).
In the case of an excused absence, it is the student’s responsibility to inform the instructor of the absence, preferably in advance, but no later than one week after it. Opportunities for make-up will be discussed then.

**Participation and Professionalism**

Evidence of professional dedication will be expected throughout this course and in all course-related interactions. Credit for participation and professionalism will be part of the evaluation. This means, in part, that we expect your regular, punctual attendance and participation. If you miss a class for any reason, it is your responsibility to contact the instructor and to make up any work.

**Attendance, Participation, and Professionalism together**

1. Students will attend all class meetings and field placement sessions.
2. Students will complete all assignments prior to scheduled discussions and due dates (see course calendar).
3. Students will attend all class meetings and be active participants.
   a. Active participation may include: verbal participation in discussions, asking questions or responding to peers or instructor in constructive ways, clearly demonstrating active listening (taking notes, paying attention, etc.), and communicating with the instructor via office meetings and/or email.
4. Absences will be communicated in advance and in writing to the instructor, or will do so as soon as possible.
   a. It is the student’s responsibility to pursue make-up work and collect materials and information from missed class meetings.
   b. Students will conduct themselves in a professional and ethical manner.
   c. They will be punctual, presentable, respectful of peers and instructors, and they will be honest in their academic efforts.
   d. They will attend to and engage course materials to learn and improve their knowledge, understanding, and practice as teachers.
5. Attendance, participation, and professionalism will be assessed holistically based on the above criteria, and will be used to determine the outcome of borderline grades.
6. Students are encouraged to communicate regularly with the instructor so that they are aware of their standing.
7. Students who fail to attend class, participate as expected, and/or conduct themselves professionally or ethically will be required to meet with the instructor to set improvement goals.
8. Poor conduct or lack of participation may negatively affect their course grades.
9. In cases of extreme or frequent misconduct, the instructor reserves the right to dismiss a student from class and notify the department and college for potential disciplinary action.
10. In non-emergency situations, late work will not be accepted without prior arrangements with the instructor.
a. The instructor reserves the right to refuse late work or to accept late work for reduced credit unless the student has made prior arrangements with the instructor.

**Students with Special Needs**
The American with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protections for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides a reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please notify your instructor and contact the Disability Resource Center (Mr. Jake Karnes, jkarnes@uky.edu) 257-2754, room 2 Alumni Gym.

The course will be conducted with openness and respect to all individuals’ points of view and experience. The activities and discussions will not tolerate discrimination or prejudice toward any person or group’s religion, ethnicity, disability, gender, or sexual orientation.

**Classroom Behavior, Decorum, and Civility (aka, Ethics Statement)**
This course and its participants will not tolerate discrimination, violence, or vandalism. EDC is an open and affirming department for all people, including those who are subjected to racial profiling, hate crimes, heterosexism, and violence. We insist that appropriate action be taken against those who perpetrate discrimination, violence, or vandalism. The University of Kentucky is an Affirmative Action and Equal Opportunity institution and affirms its dedication to non-discrimination on the basis or race, color, religion, gender, age, sexual orientation, domestic partner status, national origin, or disability in employment, programs, and services. Our commitment to non-discrimination and affirmation action embraces the entire university community including faculty, staff, and students.

All students are expected to conduct themselves in an appropriate and ethical manner during their UK classes and related field placements, as befitting graduate students, future teachers, and ambassadors for the University of Kentucky. Any unethical behavior in class may result in failure for the course and/or expulsion from the program, determined on a case-by-case basis. Faculty will follow all university due process procedures in cases of academic or ethical misconduct. Please consult the instructor if you have questions regarding this requirement.

**Statement on Plagiarism**
All materials generated for this class (which may include but are not limited to syllabi and in-class materials) are copyrighted. You do not have the right to copy such materials unless the professor or assistant expressly grants permission. As commonly defined, plagiarism consists of passing off as one’s own the ideas, words, writing, etc., which belong to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you should have permission of that person. Plagiarism is one of the worst academic violations, for the plagiarist destroys trust among others. Thus, plagiarism will not be tolerated.

It is expected that you will do your own work and give others credit for work that is used within your own writing. The *American Psychological Association (APA) Publication Manual, 5th edition*, Summer 2015
is the style guide most often used in educational research. It is expected that you will follow the APA styling for formatting, writing references, and making citations within text. An abbreviated APA style guide can be found at The Owl at Purdue (http://owl.english.purdue.edu/owl/resource/560/01/) or from the University of Kentucky Education Library located on the second floor of Dickey Hall. Further, cheating and plagiarism are serious university and academic offences. The minimum consequence of either offence is a failing grade in the course. Additional university penalties also may apply, depending upon the circumstances of the case. Please submit original work and provide complete references for any information used from other sources.

**Commitment to Diversity**
The UK Department of Curriculum and Instruction is committed to: making diversity central to policies, decisions, and practices; evaluating progress toward diversity in the program; disseminating results widely; and using these results to strengthen diversity for the Commonwealth.

Equitable access to high quality instruction in Kentucky’s secondary schools is directly and indirectly affected by this department’s beliefs in and support for social diversity in schools. Moreover, the Commonwealth is directly affected by the ability of its youth to acquire high levels of skill that can then be used by them as citizens to enhance their communities and participate in the state’s ongoing progress and prosperity in local, regional, national, and global contexts. Therefore, it is essential for our students to understand issues related to social diversity and make a commitment to value diversity as they engaged in teaching, research, reflection, learning, and leadership. By valuing diversity, our program is committed to enabling and empowering all people in educational contexts regardless of their race, ethnicity, gender, social class, sexual orientation, domestic partner status, and so forth.

**Commitment to Addressing the Achievement Gap**
The UK Department of Curriculum and Instruction aligns itself with the positions of the NCTM, NCSS, NSTA, and NCTE regarding cultural and linguistic diversity. The program seeks to underscore that cultural and linguistic diversity should be treated as integral components of public education, and that the failure to accommodate such diversity in curriculum and instruction contributes to disparities in student achievement across racial populations—a phenomenon popularly referred to as “the achievement gap.”

**Commitment to Technology**
The UK Department of Curriculum and Instruction is committed to teaching students so they use technology as a personal and professional tool. Our program is guided by NCATE standards, UK College of Education Technology Standards, EPSB Teacher Standards, and SPA Standards as they relate to technology. Students are required to use technology for a majority of their classes. Students use technology for class assignments, lesson plan design and preparation, class presentations, record keeping, and data analysis. Students are required to successfully complete course work focusing on using technology. Our students are required to communicate via electronic mail, use list serves, access the Internet and online databases, and use digital texts and modes for research projects and presentations. Our students use Microsoft Word,
Excel, Access, and PowerPoint. They are given multiple opportunities during student teaching to videotape their teaching for use in self-analysis toward professional development. Our program offers students access to “smart” classrooms and technology labs in order to further facilitate their use of technology.

**Required Texts:**
The following texts align with the Kentucky Teacher (Advanced) Standards, NCATE/NCTM Standards, NCATE/NSTA Standards, Kentucky Core Academic Standards (as they become available), University of Kentucky Teacher Leader Standards, University of Kentucky Action Research Standards, University of Kentucky Functional Skills and Dispositions, ISTE, and EPSB themes, KY Learner Goals and Expectations, Program of Studies and Core Content – online documents (or their replacements as they become available), Subject-area Professional Association (SPA) K-12 standards, and Common Core Standards and their related documents (www.commoncore.org)

*The Case of the Killer Robot: Stories about the Professional, Ethical, and Societal Dimensions of Computing* by RG Epstein


Common Core State Standards for Mathematics and English Language Arts: [http://www.corestandards.org/the-standards](http://www.corestandards.org/the-standards)

Other readings will be made available via Canvas.
I: GENERAL INFORMATION

Class Instructor: Melinda J. Ickes, Ph.D.  
Office Location: 111 Seaton Building

Office Phone: 859-257-1625  
Email: melinda.ickes@uky.edu

Class Location: N/A – Online  
Class Time: N/A - Online

Office Hours: Please send me an email to make an appointment or to set up chat.

Connect Website: http://connect.mcgraw-hill.com/connect/shortUrl.do?accessUrl=m_ickes_khp_230_-_summer_session_1_2014

II. COURSE DESCRIPTION AND OBJECTIVES

Research and Reflection for Learning and Leading: The College of Education has identified this as the theme of our conceptual framework. It is a statement of the way in which the College intends to prepare future educators. All of the work you will complete in this course is based on current research in the field of Health Promotion. Opportunities for reflection will be ongoing as you process and apply information to your personal and professional practice. Learning is the primary goal of education and everything we do, both faculty and students will contribute to that goal. Having a solid base of the content presented in this course will help prepare you for leading others to healthier lifestyles and behaviors. This class addresses Education Professional Standards Board (EPSB) Standards VIII and IX. This class also addresses American Association for Health Education (AAHE) Standard I.

“We are coming to understand health not as the absence of disease, but rather as the process by which individuals maintain their sense of coherence (i.e. sense that life is comprehensible, manageable, and meaningful) and ability to function in the face of changes in themselves and their relationships with their environment.” Aaron Antonovsky (1987)

Course Objectives:

1. Increase your knowledge and understanding of human health issues.
2. Learn how to apply health information in a way that fosters personal, familial, and community well-being.
3. Develop analytical skills that allow you to make informed health decisions as both an individual and as a professional in your field.
III: COURSE TEXT AND READINGS


*Need to make sure you have the CONNECT resource (i.e. login, password).

The textbook will be used to give the students general background in the content areas associated with the course. Students should read the corresponding chapters before each module to gain a better grasp of the material. If something is unclear, please use the discussion board, or email the professor to ask questions. Being prepared for each chapter within the module is essential in understanding the learning activities and class discussions (discussion board interaction) that will take place.

IV: STUDENT ACTIVITIES, EVALUATION, AND GRADING POLICY

We learn best by being actively involved in the process of learning! It is expected that students will actively and intuitively participate in all modules and class discussions on the discussion board. In addition, I see my role as being here to assist in the flow of the discussion and to challenge you to think and learn. It is not my intention to allow you to become overly passive; however learning is ultimately your responsibility.

Students will be evaluated on the following:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Total Points</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Activities</td>
<td>600 pts.</td>
<td>63.2%</td>
</tr>
<tr>
<td>Health Newsletter</td>
<td>100 pts.</td>
<td>10.5%</td>
</tr>
<tr>
<td>Online Final</td>
<td>100 pts.</td>
<td>10.5%</td>
</tr>
<tr>
<td>Discussion Board Participation</td>
<td>150 pts.</td>
<td>15.8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>950 pts.</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

**GRADING SCALE**

A ..... 90-100
B ..... 80-89
C ..... 70-79
D ..... 60-69
E ..... Below 60

Assignments will be given a letter grade based on departmental grading policy and on the scoring guidelines which accompany each assignment.

*Final course grade values are rounded to the nearest whole number (i.e., 89.49 and below = 89%; 89.50 and above = 90%).

*The instructor reserves the right to modify the above grading system to accommodate any special situations that may arise throughout the semester.*
V. COURSE EXPECTATIONS

A. Module Activities

- There are twelve modules throughout the semester. CONNECT points will be converted so each module is worth 50 points. The course schedule on the syllabus details the timeline for the chapters and content covered within each module. Students should expect to spend approximately 2-3 hours per chapter, which includes the reading(s), scheduled online activities, and any associated discussion board participation. To access the related online activities, students must login to the CONNECT website associated with the course. Correct, complete and thoughtful responses are expected and will be graded accordingly. Refer to module schedule/instructions for more information.

B. Health Newsletter

- Students will pick a health issue and create a newsletter for their peers (i.e. targeting college students). The information contained in the newsletter should be based on journal publications, reputable sources on the internet (.org, .edu, .gov), and other forms of available reputable health information in the mass media. Students will “present” the newsletter to their peers via Blackboard (posting and discussion). Refer to assignment rubric.

C. Discussion Board Participation

- There will be six 20-point discussion board (DB) postings throughout the semester, which will cover information related to the chapter readings and class activities. Each question posed will be found on the discussion board at the beginning of the module week. The goal of the DB is to promote student reflection on concepts presented throughout the module, while allowing students to interact with their peers and the instructor.

- There will be one 30-point discussion board posting related to peer presentations of their health newsletters. Students will be expected to look through at least three of their peers’ newsletters and provide constructive feedback and commentary, as well as pose questions to the “expert” – who will in turn respond, promoting a dialogue between class members. It is expected that students respond to comments within 24 hours.

- Responses need to be constructive and consist of several paragraphs (more than 3 sentences each). Your submitted response is expected to range between 150 and 300 words (will vary depending on DB thread). The purpose of such a parameter is to promote writing that is both thorough and concise. While the DB posts are less structured than a formal paper, the rules of logic, spelling and grammar still apply, and expert opinion must be cited back to its source (i.e. quotations, in-text citations) using APA format 6th ed. See http://owl.english.purdue.edu/owl/resource/560/01/ for more information on APA format.

“Good job, Jill. I agree with you,” is not an adequate response to someone’s posting. See course schedule.

D. Online Final

Students will complete the online final the last week of the course. Explicit details will be given.
VI: ACADEMIC INTEGRITY, CHEATING AND PLAGIARISM

Students may collaborate in general terms, but they should individually complete each assignment/module. Inappropriate contact during any course assignments will be considered cheating and will be prosecuted as such via normal UK channels. The minimum penalty for cheating is a disciplinary E, which cannot be removed from one’s transcript by a repeat option. For more information on plagiarism, and UK’s new academic offense policy, see http://www.uky.edu/Ombud. For more on UK’s policy on academic integrity, see Students Rights and Responsibilities, Part II, Section 6.3 (http://www.uky.edu/StudentAffairs/Code/part2.html).

VII. CLASS PARTICIPATION

Participation in all course modules and discussion boards is required, and to a large extent will relate to the degree of your success in this course. Each student is expected to actively participate in the assigned online modules and discussion boards.

Distance learning (online) may be a very different environment for many of you. You will generally set your own schedules, participate in class activities at your own convenience, and work at your own pace. However, you need to pay attention to deadlines. You may feel you are spending a lot of time online initially as you grow accustomed to the activities and format. If you are really struggling, please contact the instructor sooner rather than later.

If students have extenuating circumstances due to injury or illness, the student must notify the instructor immediately and present the instructor with a written medical excuse within one week. For UK’s policy on excused absences, see Students Rights and Responsibilities, Part II, Section 5.2.4.2 (http://www.uky.edu/StudentAffairs/Code/part2.html).

VIII: OTHER POLICIES

A. Technology: Please refer to this syllabus on a regular basis for class dates, assignment info, etc. The use of BlackBoard will be employed in this course for the dissemination of course materials such as syllabus, handouts, additional readings and assignments. Therefore, you MUST have access to a computer to partake in this course and need to check the Blackboard on-line learning website for this course on a regular basis for class announcements, discussion forums, etc.

B. Communication: If you want your email sent to an address other than the one registered on BlackBoard, it is your responsibility to change it. You are expected to check your email at least three times a week. When emailing me, please include KHP 230 and your name in the subject line so I may respond appropriately.

C. Late Assignments: For work that is turned in after the due date, five points will be deducted each day it is late from the final grade. ALL MISSED WORK MUST BE COMPLETED WITHIN ONE WEEK FROM THE ORIGINAL DUE DATE or it will NOT be accepted under any circumstances.

D. Grades: Review your graded assignments, as well as your cumulative grade regularly. If you believe your score is in error, or you would like to dispute your score, you have one week from the time the grade is posted to notify me. After that time, the grade stands as posted.
E. **Academic Accommodations**: If you have a documented disability that requires academic accommodations, please contact me as soon as possible to schedule an appointment. In order to receive accommodations in this course, you must provide me with a Letter of Accommodation from the Disability Resource Center (Room 2, Alumni Gym, 257-2754, email address jkarnes@email.uky.edu) for coordination of campus disability services available to students with disabilities.

F. **Communication Etiquette**: When sending an email to the professor, please use professional email manners such as addressing the email, signing your complete name, and checking for spelling/grammatical errors. It is a good habit to practice professional email etiquette with all of your professors and community contacts. Professionalism in emails also includes the content – emails that resemble abbreviated text messages are not appropriate, and will likely not receive a response from the professor.

G. **Netiquette**: Netiquette refers to a set of behaviors that are appropriate for online activity, especially with email and threaded discussions (discussion board). The core rules of netiquette can be found at [http://www.albion.com/netiquette/corerules.html](http://www.albion.com/netiquette/corerules.html). Please read these rules to ensure that you are familiar with what will be the expected online behavior for this course. You are expected to follow all rules; however, please note that students frequently violate rules 5, 7 and 10. Make sure you review carefully, as violation of the rules may result in overall point deduction.

H. **APA Format**: APA format 6th edition will be used when citing any references (in-text or within reference pages). Remember to give credit to sources in which you take ideas from (in all assignments and DB postings). Visit [http://owl.english.purdue.edu/owl/resource/560/01/](http://owl.english.purdue.edu/owl/resource/560/01/) for more information on APA format.

I. **Plagiarism**. Plagiarism is a serious academic offense. The minimum penalty is final grade E for the course. Read more about university regulations here: [http://www.uky.edu/StudentAffairs/Code/](http://www.uky.edu/StudentAffairs/Code/)

Students will be required to read a document on plagiarism as part of their assignments.

**IX. INSTRUCTOR RESPONSIBILITIES**

A. **Communication**: I will review email messages every Monday through Thursday and respond within 24 hours. Consequently, plan your time accordingly. Emails received on the weekend will not receive a response until the beginning of the next week. If you have a dire need, please call and leave a voicemail and/or set up an appointment.

B. **Grading**: Online assignments will generally be graded and returned within one week after the due date (unless notified previously).

C. **Other**: I will notify students of any changes in the course, provide specific details of online assignments, provide additional resources and information as they become available, and provide specific instructions for submitting all assignments.
X: **TENTATIVE COURSE SCHEDULE**

**** The instructor reserves the right to make updates and changes to the syllabus at any time.

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/13</td>
<td>Introductions</td>
<td></td>
<td>Introduction Module</td>
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<tr>
<td></td>
<td>CONNECT setup</td>
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<tr>
<td>5/14</td>
<td>Self, Family and Community</td>
<td>Chpt. 1</td>
<td>CONNECT</td>
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<tr>
<td>5/15 &amp; 5/16</td>
<td>Mental Health and Stress</td>
<td>Chpt. 2</td>
<td>CONNECT</td>
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<tr>
<td></td>
<td>Discussion Board #1</td>
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<td>DB #1</td>
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<tr>
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<td>5/19</td>
<td>Social Connections</td>
<td>Chpt. 3</td>
<td>CONNECT</td>
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<td>5/20</td>
<td>Sleep</td>
<td>Chpt. 4</td>
<td>CONNECT</td>
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<td>5/21-5/22</td>
<td>Nutrition</td>
<td>Chpt. 5</td>
<td>CONNECT</td>
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<td>Discussion Board #2</td>
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<td>DB #2</td>
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<tr>
<td>5/23</td>
<td>Fitness</td>
<td>Chpt. 6</td>
<td>CONNECT</td>
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<td>Discussion Board #3</td>
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<td>DB #3</td>
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<tr>
<td>5/27</td>
<td>Body Weight and Body Composition</td>
<td>Chpt. 7</td>
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<td>Body Image</td>
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<td>(DUE 5/27 @ 11 p.m.)</td>
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<td>Alcohol</td>
<td>Chpt. 9</td>
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<td>5/29 &amp; 5/30</td>
<td>Tobacco</td>
<td>Chpt. 9</td>
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<tr>
<td></td>
<td>Drugs</td>
<td>Chpt. 10</td>
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<td>Discussion Board #5</td>
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<td>DB #5</td>
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<td>(DUE 5/30 @ 11 p.m.)</td>
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<td>6/2</td>
<td>Cardiovascular Disease, Diabetes and Chronic Lung Disease</td>
<td>Chpt. 14</td>
<td>CONNECT</td>
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<td>(DUE 6/2 @ 11 p.m.)</td>
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<tr>
<td>6/2</td>
<td>Cancer</td>
<td>Chpt. 15</td>
<td>CONNECT</td>
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## MODULE #11 – Protecting Yourself From Injury

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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapters</th>
<th>Connect</th>
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</thead>
<tbody>
<tr>
<td>6/3</td>
<td>Injury and Violence</td>
<td>Chpt. 16</td>
<td>CONNECT</td>
</tr>
<tr>
<td></td>
<td>Discussion Board #6</td>
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<td>DB #6</td>
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## MODULE #12 – Understanding Your Sexual Health

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Chapters</th>
<th>Connect</th>
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<tbody>
<tr>
<td>6/4 &amp; 6/5</td>
<td>Sexual Health Reproductive Choices</td>
<td>Chpt. 11</td>
<td>CONNECT</td>
</tr>
<tr>
<td></td>
<td>Infectious Diseases/ Sexually Transmitted Diseases</td>
<td>Chpt. 12</td>
<td>CONNECT</td>
</tr>
<tr>
<td></td>
<td>Infectious Diseases/ Sexually Transmitted Diseases</td>
<td>Chpt. 13</td>
<td>CONNECT</td>
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## Newsletters

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Connect</th>
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</thead>
<tbody>
<tr>
<td>6/6 &amp; 6/9</td>
<td>Newsletters</td>
<td>DB #7</td>
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</tbody>
</table>

(DUE 6/6 @ 11 p.m.; DB follow up posts and responses DUE 6/9 @ 11 p.m.)

## FINAL

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/10</td>
<td>Online FINAL</td>
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(DUE 6/10 @ 11 p.m.)