

Geneva High School

Memorandum

To: Board of Education
From: Tom Rogers
Doug Drexler
Date: September 18th, 2013
Re: GHS New and Modified Courses for 2014-2015
Cc: Dr. Mutchler, Patty O'Neil

Although it seems as if the current school year is just getting underway, we have already been hard at work planning for the 2014-2015 school year. For fall of 2014 we are recommending one new course as well as modifications to five existing courses. We also have one request for the adoption of a supplementary novel for the current school year. These changes to our course offerings will better enable us to meet the needs of our students.

To date, these new and modified courses have been reviewed and approved by the Department Chairs, Building Leadership Team, Building Administration, and the District-wide Staff and Curriculum Development Council. We await your approval before allowing students to register for these courses beginning in November.

Some of these changes do not require a change in staffing or a budget allocation, while others will have costs associated with them if they produce sufficient student enrollments to run them. Funding requests for any staff or expenses will follow the current procedures for this in the spring once our course registration process is complete. However, we have included the possible anticipated costs for informational purposes. Additional information has also been included that provides greater detail on some of these recommendations.

Please let me know if you have any questions about the proposed changes that appear below:

Proposed New Course

Department	Course	Description	Anticipated Cost
Business	Virtual Enterprises International (VEI)	Virtual Enterprises International (VEI) is a capstone course for juniors and seniors that provides a simulated business environment in which students create and manage a virtual company. Students will conduct business with other VEI "firms" nationally and internationally. Students in VEI are involved in all aspects of running a business, including accounting, human resources, product development, production, distribution, marketing, and sales. Additional information on Virtual Enterprises International is attached in Appendix A	0.2 FTE possible \$2000 for licensing, materials, and training Grant and private funding may be a possibility

Proposed Course Modifications

Department	Course	Proposed Modification	Anticipated Cost
English	Creative Writing II	Change course name to “Creative Writing II: Writing for Publication” to better reflect course content and better inform student course selection	None
Math	Discrete Mathematics	Extend this existing one-semester course to two semesters. This will provide an option for four years of math for students not taking pre-calculus or calculus.	0.2 FTE possible
PE/Health	Health & Safety	Offer Health & Safety course in Early Bird format during spring semester to align with Early Bird PE.	None
Technology Education	Engineering course sequence	Transition existing GHS engineering course sequence to Project Lead the Way curriculum. Project Lead the Way is a rigorous Science, Technology, Engineering, Math (STEM) program that will require students to have solid math and science background. Students will apply their skills to an engineering-focused curriculum in real-world scenarios. The Project Lead the Way course sequence at GHS will carry honors level weight. Existing Engineering Graphics course will remain as an elective option for students without the math required for Project Lead the Way. Additional information on Project Lead the Way is attached in Appendix B.	For equipment, materials, and training: Year one=\$33,600 Year two=\$27,600 Year 3+=\$8,000 Grant and private funding may be a possibility
Other	Teacher Assistant	Expand existing K-8 Teacher Assistant program to preK-12 to incorporate both the preschool and high school.	\$1586 (stipend)

Instructional Materials Adoption for current school year

Department	Course	Instructional Material	Cost
Family & Consumer Science	Child Development	Incorporate <i>A Child Called It</i> as a supplementary novel that addresses the topic of child abuse as part of the existing unit on child abuse.	\$810 (grant funded)

Curricular Studies Initiated

Department	Course	Description
English	English III	Piloting StudySync Online Critical Thinking and Writing Platform to allow for enhanced peer editing of student writing
PE/Health	Advanced Personal Fitness	Piloting new activities including kettlebell, pilates, zumba, and step aerobics
Technology	Computer Programming	Studying the feasibility of a computer programming class

Appendix A: Additional information regarding Virtual Enterprises International

Course Name: Virtual Enterprises International (VEI)

Open to grades: 11, 12

Credits: ½, ½

Prerequisite: at least 1 full credit from the Business Department

Description: This capstone full-year course provides a simulated business environment in which students create and manage a virtual company, conducting business with other “firms” nationally and internationally. Students are involved in every aspect of running the business, including human resources, accounting, product development, production, distribution, marketing and sales. In the simulated business environment, students belong to a specific department depending on skills, prior knowledge, and personal interest. Leadership opportunities within the firm provide further relevant experience. The program enables participants to experience careers, acquire global economic knowledge, develop interpersonal and organizational skills, utilize technology as applied in business, and gain a clear understanding of how employees work together to meet the goals of the company while at the same time conveying the professional expectations of the workplace.

Background: For many years, GHS has had a small number of students register for Advanced Accounting, Advanced Marketing, Multimedia Design, and Digital Marketing. Unfortunately, the enrollment numbers have not been large enough to justify running these courses for our students that have a strong desire to pursue business after high school. VEI will encompass all of these areas within one course.

The VEI learning environment emphasizes project-based, collaborative learning and teachers who guide and direct student learning rather than present prescribed daily lessons. VEI students learn by doing. The simulated business replicates all of the functions and demands of a real business in both structure and practice, from product development, production and distribution to marketing, sales, human resources, finance and accounting. As “employees” of the virtual business, students are accountable for their company’s management and performance. Through a web-based simulated banking system that connects the over 5,000 student-run businesses in 40 countries, VEI students experience the expectations of the global economy and find new solutions to drive business results by trading across industries, borders and cultures.

VEI is a comprehensive and student-oriented approach towards teaching and learning that provides practical and task-oriented instruction in a real-world environment. With communication links to over 5,000 VEI firms around the world, students are exposed to different cultures, business practices, and currencies, thus providing them with a broader international perspective. Students engage in hands-on applications, problem solving, and written and verbal communication with development of soft skills at the core of the curriculum. The rigorous nature of the course requires students to apply the knowledge, skills, and personal characteristics needed to succeed in employment and/or post-secondary education, and provides relevant experiences in their area of interest. Students would be able to repeat this course for credit as long as they worked in a different role within the VEI class.

The following is a link to The Virtual Enterprise website:

<http://veinternational.org/>

The following link is for featured stories about VEI and the positive impact it has had globally: <http://veinternational.org/newsevents/featured-stories/>

Appendix B: Additional information regarding Project Lead the Way

Course Name: Introduction to Engineering Design I and II

Open to grades: 9,10,11,12

Credits: ½, ½

Prerequisite: Completion of or concurrent enrollment in Algebra I

Description: The major focus of these courses is the design process and its application. Through hands-on projects, students apply engineering standards and document their work. Students use industry standard modeling software to help them design solutions to solve proposed problems, document their work using an engineer's notebook, and communicate solutions to peers and members of the professional community.

Course Name: Principles of Engineering I and II

Open to grades: 10,11,12

Credits: ½, ½

Prerequisite: Introduction to Engineering Design

Description: The major focus of these courses is to expose students to major concepts that they will encounter in a post-secondary engineering course of study. Topics include mechanisms, energy, statics, materials, and kinematics. Students develop problem-solving skills and apply their knowledge of research and design to create solutions to various challenges, document their work and communicate solutions.

Background: Despite its high quality, the current engineering program at GHS does not always appeal to students with strong abilities in math and science. Project Lead the Way is a rigorous STEM program that will require students to have a solid math and science background. Students will apply their skills to an engineering-focused curriculum in real-world scenarios. The Project Lead the Way course sequence at GHS will carry honors level weight.

Project Lead the Way (PLTW) is a nationally recognized engineering curriculum that is aligned with many of the top engineering colleges and is supported at the state level by the University of Illinois.

The target audience for the Project Lead the Way course sequence at GHS includes students:

- with strong math and science skills
- with an interest in engineering
- interested in developing math and science reasoning skills
- seeking to take a rigorous elective course

Project Lead the Way 2-year master plan:

2014-15	Project Lead the Way: Introduction to Engineering Design I (1 semester)
2014-15	Project Lead the Way: Introduction to Engineering Design II (1 semester) (For students <u>new</u> to the sequence, this replaces Engineering Graphics I and Engineering Graphics II)
2015-16	Project Lead the Way: Principles of Engineering I (1 semester)
2015-16	Project Lead the Way: Principles of Engineering II (1 semester) (For students <u>new</u> to the sequence, this replaces Engineering Technology and Engineering Design)

The existing Engineering Graphics I course will be renamed Engineering Graphics and will be retained as an elective for students without the math background to start the Project Lead the Way course sequence. Some of these students may then be able to begin the Project Lead the Way course sequence after completing this course and additional math courses.

As we already have students in our existing engineering course sequence, we may phase out Engineering Graphics II, Engineering Technology, and Engineering Design over the next few years as students exit the program.

Although there are no FTE costs associated with implementing Project Lead the Way, there are costs for equipment, materials, and training. If available, CTEI grant funds may be used to offset some of these costs. Additionally, GHS is actively seeking private sources to fund the startup of Project Lead the Way.

Costs include required equipment, software, training, and all materials:

Year 1 approximate cost =	\$33,600
Year 2 approximate cost =	\$27,600
Year 3+ approximate annual cost =	\$ 8,000

There are some options for upgraded equipment that would require an additional \$28,000 investment. If additional Project Lead the Way courses are added in the future, specific costs will be included in those course proposals.

Additional Project Lead the Way courses will be studied over the next two years for possible implementation in the future.