Southern Lehigh High School

Program of Studies
Proposed Changes
2017-2018

Summary of Changes by Department

MATH

- Add AP Computer Science Principles Course
- Add AP Calculus BC Course
  - **NOTE: Additional staffing requested for these offerings.**

SCIENCE

- Add Kinesiology Course
- AP Physics I – Prerequisite change from current A to B+ in Alg II
- AP Physics 2 – Prerequisite change from current B to C in AP Physics 1
- Biology – Prerequisite change from a C to C+ in 8th grade Science

WORLD LANGUAGE

- Add AP Spanish Literature and Culture
- Add AP Chinese to POS book

BUSINESS

- Add Microsoft Office Specialist Certification Course (.5 credit)

GIFTED

- Add Gifted IV A and IV B Seminar Courses in addition to changing some themes/topics.

ART

- Portfolio – Add prerequisite of Drawing and Painting
- Drawing and Painting – Add prerequisite of Foundations of Art

MUSIC

- Alternate years for offering Music Theory I and AP Music Theory
- Drop Electronic Music

Proposal: AP Computer Science Principles

(please limit to one page if possible)

I. Concept or Rationale for Proposal (why is this needed)

AP Computer Science Principles introduces students to the foundational concepts of computer science and challenges them to explore how computing and technology can impact the world. With a unique focus on creative problem solving and real-world applications, AP Computer Science Principles prepares students for college and career.

Whether it's 3-D animation, engineering, music, app development, medicine, visual design, robotics, or political analysis, computer science is the engine that powers the technology, productivity, and innovation that drive the world. Computer science experience has become an imperative for today's students and the workforce of tomorrow.

The AP Program designed AP Computer Science Principles with the goal of creating leaders in computer science fields and attracting and engaging those who are traditionally underrepresented with essential computing tools and multidisciplinary opportunities.

The addition of this course helps contribute to the building goal of increasing the number of AP opportunities.

The results of the survey conducted showed that 74 out of the 405 students who complete it would be interested in taking AP Computer Science Principles if it were offered at Southern Lehigh High School.

II. Overview/Rationale for Description of Proposed Course

The AP Computer Science Principles course is designed to be equivalent to a first-semester introductory college computing course. In this course, students will develop computational thinking skills vital for success across all disciplines, such as using computational tools to analyze and study data and working with large data sets to analyze, visualize, and draw conclusions from trends. The course is unique in its focus on fostering student creativity. Students are encouraged to apply creative processes when developing computational artifacts and to think creatively while using computer software and other technology to explore questions that interest them. They will also develop effective communication and collaboration skills, working individually and collaboratively to solve problems, and discussing and writing about the importance of these problems and the impacts to their community, society, and the world. Students are advised to consult with their parents, teachers, and guidance counselors before selecting any AP course. Students will be administered the AP exam for college credit at the end of the course at their own expense.

III. Action Steps/Timeframe/Anticipated Outcome

- Proposal to Education Committee- November 2016
- Approval by Board – December 2016
- Development of AP Comp Sci Principles Syllabus- February 2017
- Preparation of Summer Reading and Course Work – April 2017
- Development of Course Materials/Outline- May 2017
- Attend AP Training for AP Comp Sci Principles - Summer 2017

Proposal: AP Calculus BC

(please limit to one page if possible)

1. Context or Rationale for Proposal (why is this needed)

There are 14 11th grade students enrolled in AP Calculus out of 20 total students. Many of these students will go on to pursue mathematics at a college level. After they have completed AP Calculus (AB) as juniors, they only have two options for higher-level mathematics- AP Statistics or take a higher level of Calculus some place else. AP Statistics is a different style of mathematics, focusing on statistical analysis, and will prepare students who will get a bachelors of arts. AP Calculus (BC) is geared more for students entering a field in the sciences, technology, engineering, and/or mathematics (STEM). In addition, we will be providing an additional AP opportunity in mathematics.

This course will be open to students who earned a C or better in AP Calculus (AB) or have taken the AP Calculus (AB) Exam and scored a 3 or higher.

The addition of this course will help to contribute to the building goal of increasing the number of Advanced Placement opportunities.

The results of the survey conducted showed that 102 out of the 405 students who complete AP Calculus AB would be interested in taking AP Calculus BC if it were offered at Southern Lehigh High School.

2. Overview of Proposal or Description of Proposed Course

Course Description:

AP Calculus BC is roughly equivalent to both first and second semester college calculus courses and extends the content learned in AB to different types of equations and introduces the topics of sequences and series. The AP course covers topics in differential and integral calculus, including concepts and skills of limits, derivatives, definite integrals, the fundamental theorem of calculus, and series. The course teaches students to approach calculus concepts and problems when they are represented graphically, Numerically, analytically, and verbally, and to make connections amongst these representations. Students learn how to use technology to help solve problems, experiment, interpret results, and support conclusions. Students are advised to consult with their parents, teachers, and guidance counselors before selecting any AP course. Students will be administered the AP exam for college credit at the end of the course at their own expense. A graphing calculator is required for this course. (TI-84 Plus or TI-Nspire are highly recommended)

3. Actions with Timelines to Achieve Necessary Outcome

- Proposal to Education Committee- November 2016
- Approval by Board – December 2016
- Development of AP Calculus (BC) Syllabus- February 2017
- Preparation of Summer Reading and Course Work – April 2017
- Development of Course Materials/Outline- May 2017
- Attend AP Training for AP Calculus (BC)- Summer 2017

Proposal: Kinesiology Course

(please limit to one page if possible)

I. Context

The field of health care, both preventative and restorative, is expanding at a fantastic rate in the United States. Colleges offer a myriad of avenues of study for students to gain entry into the health care industry. Possible careers using kinesiology include but are not limited to physical education, health promotion, exercise science, athletic training, sports management and dance.

II. Purpose and Overview

The purpose of this proposed plan is: to establish a Kinesiology course at Southern Lehigh High School. The health care and related fields are rapidly expanding in the United States. A course in Kinesiology would be an excellent first step and overview for high school students to prepare for the college coursework related to these fields. The study of Kinesiology can offer an extremely broad curriculum, allowing students the opportunity to find areas of specific interest to them and their future studies.

Overview of Plan:

Areas of study to include:

-Human anatomy and physiology of the musculoskeletal system and neuromuscular systems
-Biomechanics
-Biochemistry of human metabolism
-Neurobiology of movement
-Exercise physiology
-Exercise and sport psychology
-Ethics of sport and exercise

III. Action steps with brief details to achieve successful outcome

- November 2016—Submit to Ed Committee
- December 2016 - Seek school board approval
- February 2017—Complete pacing guide
- May 2017—Complete Curriculum

Proposal: (AP Physics I)

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

Last year's enrollment in AP Physics I was 43 and this year we are at 24. The current pre-requisite for AP Physics I is an A in Algebra II. By lowering the pre-requisite to a B+ in Algebra II, more students will feel encouraged to take the course. Also, AP Physics I is the only Science with an pre-requisite grade of A, so lowering the cut-off to a B+ will make AP Physics I correspond more to the other AP courses.

II. Overview of Proposal or Description of Proposed Course:

Lower the AP Physics I pre-requisite from an A to a B+ to encourage student enrollment in the course. A B+ in algebra should be more than sufficient for AP Physics I since the math skills correspond to basic algebra and trigonometry.

III. Action steps with broad dates to achieve necessary outcome

- Lower the pre-requisite to a B+ as soon as possible so that next year's students clearly understand that an A in Algebra II is not needed to succeed in the course.

Proposal: (AP Physics 2)

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

Based on the average score and pacing of AP Physics 1, the prerequisite score of a "B" average in AP Physics 1 should be lowered to AP Physics 2. Students who scored a "C" of better in AP Physics 1, may still benefit from an AP Physics 2 class.

AP Physics 1 is a more difficult class than AP Physics 2 because in AP 1 students are developing a literacy of science and math within the realm of Physics. In AP 2, we are applying the literacy skills acquired in AP 1.

II. Overview of Proposal or Description of Proposed Course:

Changing prerequisite of AP Physics 2 from a "B" average to a "C" average in AP Physics 1.

III. Action steps with broad dates to achieve necessary outcome

•

Proposal: Biology I

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

Change the prerequisite for Biology I from a C to a C+ in 8th grade science course. The rationale for this change is that by increasing the grade pre-req for the course more students will be appropriately placed in one of the 3 levels of the Biology courses. This will increase the student's level of success.

II. Overview of Proposal or Description of Proposed Course

III. Action steps with broad dates to achieve necessary outcome

•

Proposal: AP Spanish Literature and Culture

(please limit to one page if possible)

I. Core Standards for Proposed Course (see instructions)

For many years, we have been lacking in a course offering for the senior immersion students. After they complete the AP Spanish Language and Composition Course in junior year, we have offered only Spanish V, which is a lateral move rather than a progression in the language. Upon completing a survey of the current immersion students in the high School, 77.3% of the students surveyed stated that they would be interested in taking an AP Literature and Culture in their senior year.

Furthermore, the class would prepare our students for college level language courses which usually involve literature courses that foster the improvement of analytical and critical thinking skills, an enhanced aesthetic appreciation of works of literary art, and a broader understanding of linguistic and cultural diversity.

Moreover, AP Spanish Literature and Culture furthers our goal of educating students for an ever-increasing global community. As stated by the College Board, *"In today's global community, competence in more than one language is an essential part of communication and cultural understanding. Study of another language through its literature provides students with access to cultural perspectives and knowledge, encourages them to make connections and comparisons between cultures and literary works, and helps them develop the ability to think critically. The proficiencies acquired through the study of languages and literatures endow language learners with cognitive, analytical, and communication skills that carry over into many other areas of their academic studies."*

II. Overview/Proposal Description of Proposed Course

As described on the College Board website:

The AP Spanish Literature and Culture course uses a thematic approach to introduce students to representative texts (short stories, novels, poetry, and essays) from Peninsular Spanish, Latin American, and United States Hispanic literature. Students continue to develop proficiencies across the full range of the modes of communication (interpersonal, presentational, and interpretive), honing their critical reading and analytical writing skills. Literature is examined within the context of its time and place, as students reflect on the many voices and cultures present in the required readings. The course also includes a strong focus on cultural connections and comparisons, including exploration of various media (e.g., art, film, articles, and literary criticism).

Course Themes

The AP Spanish Literature and Culture course is structured around six themes:

- Las sociedades en contacto (Societies in Contact)
- La constucción del género (The Construction of Gender)
- El tiempo y el espacio (Time and Space)
- La creación literaria (Literary Creation)
- Las relaciones interpersonales (Interpersonal Relationships)
- La dualidad del ser (The Dual Nature of Being)

Themes promote the exploration of literature in a variety of contexts and develop students' abilities to

make cross-textual and cross-cultural connections. The themes may be combined, as they are interrelated.

AP Spanish Literature and Culture Learning Objectives

At the core of the AP Spanish Literature and Culture course are learning objectives, which outline the expectations for what students should know and be able to do. These expectations are in accordance with the five goal areas (the "five C's") of the Standards for Foreign Language Learning for the 21st Century: Communication, Cultures, Connections, Comparisons, and Communities. For Communication, students continue to develop proficiency in the three modes of communication:

- Interpersonal Communication (the active negotiation of meaning among individuals)
- Interpretive Communication (the appropriate cultural interpretation of meanings that occur in written or spoken form with no active negotiation of meaning)
- Presentational Communication (the creation of written or spoken messages in a manner that facilitates interpretation by an audience with no active negotiation of meaning)

For Cultures, Connections, Comparisons, and Communities, students gain knowledge and understand the relationships between products, practices, and perspectives of the cultures studied in literary texts and through other media. Additionally, students continue to develop language proficiency across a full range of language skills, with special attention focused on language used in critical reading and analytical writing.

III. Action Steps with Timeframes to Achieve Desired Outcome

- Proposal to Education Committee- November 2016
- Approval by Board – December 2016
- Development of AP Spanish Syllabus- February 2017
- Preparation of Summer Reading and Course Work – April 2017
- Development of Course Materials/Outline- May 2017
- Attend AP Training for AP Spanish - Summer 2017

Proposal: Microsoft Office Specialist (MOS) Certification

I. Context or Rationale for Proposal (why is this needed)

By earning MOS certification, students are more competitive and have an advantage over others. After graduation, MOS certification will help students advance and give them an edge in applying for a desired position in the workforce. Certification adds an important qualification that students can include on a resume.

II. Overview of Proposal or Description of Proposed Course

This fast-paced, flexible, rigorous online learning course is designed for new and experienced self-motivated learners as they develop Microsoft Office competencies in Word, PowerPoint, Excel, and/or Access. Successful completion of the course leads to the option of taking the MOS Certification exam in the area of their choice (fees associated with the certification exams are the responsibility of the student). More opportunities exist to earn additional certifications in other technology applications. This would be a .5 credit elective that meets for a semester.

III. Action steps with broad dates to achieve requested outcome

- November 2016 –February 2017: Research online options for delivering the course and sign up for trainings if necessary.
- February 2017-March 2017: Determine student interest and enrollment for course.
- March 2017-August 2017: Develop course outline and pacing guide for course and prepare materials necessary to teach the course.

Proposal: Gifted Seminar

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

We need to offer Gifted Seminar electives for each semester that a Gifted student is in high school, which means adding two courses in order to address additional enrichment needs of Gifted students. Several course titles and descriptions need to be updated to better reflect the nature of the courses.

II. Overview of Proposal or Description of Proposed Course:

Introduction

Gifted Seminar is a half-year elective open to students identified as gifted learners through the GIEP procedure. Gifted students may take one Gifted Seminar course for each of their 4 years in High School. The courses: IA & IB, IIA & IIB, IIIA & IIIB, and IVA & IVB, do not need to be taken in order. These courses focus on reflection, analysis, and action. Students will work on 21st century skills such as perspective taking and interpersonal development. Course work will be influenced by student interest and driven by inquiry, discussion, and problem solving.

Gifted Seminar IA-Offered Fall 2017 Global Studies

The emphasis of this course is developing a global perspective on current global issues. Students will work on viewing contemporary issues from the diverse perspective of people from around the world.

Gifted Seminar IB-Offered Spring 2018 Local Activism

The emphasis of this course is for students to develop an idea, plan, and act to make a local impact. Students will develop 21st century skills as they work to address a problem they identify as consequential. They will develop a sense of efficacy as they see their idea to completion.

Gifted Seminar IIA-Offered Fall 2018 Contemporary Social Issues

The emphasis of this course is to explore contemporary issues that challenge students' understanding of the world around them. Students will evaluate current issues, consider various points of view, and cultivate an appreciation for fairly addressing social complexities.

Gifted Seminar IIB-Offered Spring 2019 Media in Society

The emphasis of this course is to examine the role of media on our world today. Students will analyze various mediums in order to evaluate the impact of media on one's personal identity and on our collective identity as a society.

Gifted Seminar IIIA-Offered Fall 2019 Philosophy

The emphasis of this course is to appreciate the philosophical foundations of many of our current beliefs and institutions. Students will read various philosophical perspectives, reflect on their own philosophical beliefs, and discuss the merits and implications of philosophical thinking.

Gifted Seminar III B-Offered Spring 2020 Cultural Experiments

The emphasis of this course is to develop an understanding of how a specific culture is established and maintained over a given period of time. Students will analyze how history, values, physical environment, and institutional norms affect the development of a culture.

Gifted Seminar IVA-Offered Fall 2020 Leadership
The emphasis of this course is to develop leadership characteristics through creative problem solving of real world dilemmas. Students will examine their own leadership traits and build their personal capacity for leadership through various experiences throughout the semester.

Gifted Seminar IVB-Offered Spring 2021 Fiction v. Nonfiction
The emphasis of this course is to compare and contrast the impact of fiction and nonfiction on a person's beliefs and understanding. Students will evaluate the efficacy of facts and the arts and analyze how both impact how people think and feel about similar issues.

III. Action steps with broad dates to achieve necessary outcome

- Update the current introduction to Gifted Seminar
- Change the title of Asian Studies to Global Studies
- Change the title of Social Issues: Past and Present to Contemporary Social Issues
- Change the title of Cultural Arts to Cultural Experiments
- Add Gifted Seminar IB: Local Activism
- Add Gifted Seminar IVB: Fiction v. Nonfiction
- Modify the descriptions for each offering

Proposal: Portfolio

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

The purpose behind a pre-requisite for Portfolio (a full year course) is to prepare students to take our most advance art course. By adding Drawing/Painting as a pre-requisite, students will learn the basic content needed to further learn artistic applications and content in depth. By having previous content to reference, they will be able to explore advance artistic techniques in line with content learned in college, understand how to develop content for a work of art, and focus on post secondary portfolio applications.

II. Overview of Proposal or Description of Proposed Course

It is in the best interest of our Portfolio students to have Drawing and Painting as a pre-requisite course. Not having a basic understanding of how to draw, apply value, and use multiple painting mediums has hindered the growth of some students currently in Portfolio. Since Portfolio is a more student driven course and primarily has choice based projects, students can use what they have learned from Drawing and Painting to further their understanding rather than learning basics as they grow. This will also help improve the confidence of advance art students in their own artistic abilities. Portfolio then can be offered to Juniors and Seniors with the pre-requisite.

III. Action steps with broad dates to achieve necessary outcome

- Get approval for pre-requisite to be added by next school year, 2017-2018.

Proposal: Drawing and Painting

(please limit to one page if possible)

I. Context or Rationale for Proposal (Why is it needed?)

The purpose behind a pre-requisite for Drawing and Painting (a full year course) is to prepare students with basic artistic content so that they may take what they learned and further apply, in depth, artistic techniques. By adding Foundations of Art as a pre-requisite students will learn/ refresh themselves on content needed to start Drawing and Painting. This also allows for a gradual growth throughout the art courses offered at Southern Lehigh High School. By having previous content to reference, they will be able to explore different techniques in line with other art courses available.

II. Overview of Proposal or Description of Proposed Course

It is in the best interest of our Drawing and Painting students to Foundations of Art as a pre-requisite course. Not having a basic understanding of art and artistic processes has hindered the growth of some students currently in Drawing and Painting. This will also help improve the confidence of students interested in taking other courses available.

III. Action steps with broad dates to achieve necessary outcome

- Get approval for pre-requisite for next school year, 2017-2018.

Proposal: (Music Theory I/AP Music Theory)

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

All we are seeking to change is that there should be a line in the program of studies that addresses which course we teach in a given year. For example, this school year (16-17) we are teaching AP. We anticipate teaching Theory I next year (17-18). That way kids know up front which course is "really" being offered. The only other option would be to ONLY list the description of the course we are teaching in that year but that means that each and every year we have to go in and switch them and we would constantly have to update the scheduling forms.

II. Overview of Proposal or Description of Proposed Course:

Due to the limit of teaching schedule for the band/orchestra director at the high school, we do not have the teaching space to offer BOTH theory classes EACH year. We also, in fairness to the situation, do not have the interest from students for BOTH classes EACH year. Therefore, the solution for this current school year was to ONLY offer AP due to the number of seniors who were most interested in that offering. It is our intention to only offer Music Theory I in the 17-18 with the goal of switching back to AP in 18-19. The Music Theory I course is still recommended as a prerequisite for AP (although we do also offer the test out option to advance right to AP, but this is not our recommended option).

III. Action steps with broad dates to achieve necessary outcome

- The line should read: "THE MUSIC THEORY COURSES ARE OFFERED IN ALTERNATING YEARS. IF THE SCHOOL YEAR BEGINS IN AN ODD NUMBERED YEAR, THEN MUSIC THEORY I IS TAUGHT. IF THE SCHOOL YEAR BEGINS IN AN EVEN NUMBERED YEAR, THEN AP MUSIC THEORY IS TAUGHT."

Proposal: elimination of ELECTRONIC MUSIC

(please limit to one page if possible)

I. Context or Rationale for Proposal (why is this needed)

The Electronic Music course was created approximately 9 years ago. In that time, interest has ebbed and flowed, however we have seen a reduction in interest in the last 2 years. Right now, we are only offering this course as a singleton in the fall semester with only 11 students enrolled. Other courses offered by the department are proving far more popular and thus require more sections. We are also seeing that many students are doing these same skills and projects in IS and MS music classes. Therefore, we are duplicating the curriculum and that could also be why interest in the course is waning. The technology to upgrade this course beyond what we currently do would be very cost-prohibitive and would require significant instructor training.

II. Overview of Proposal or Description of Proposed Course:

We advocate removing ELECTRONIC MUSIC from the course guide as of the 17-18 school year.

III. Action steps with broad dates to achieve necessary outcome

- None at this time.