In preparation of our high school schedule for the 2013-2014 school year, we would like to share the course descriptions of the required courses. We would also need some information from our students regarding their individual choices for mathematics, fine arts, and electives. The finalized schedule will be dependent upon student need and faculty staffing. Please review the course descriptions, complete the course selection form, and return it to Mrs. Schneider by Monday, April 29.

1. Mathematics Courses for 11th grade (Student must select one.)

IGCSE Additional Mathematics
Major Concepts/Skills: The purpose of this course is to enable students to: consolidate and extend their elementary mathematical skills and use these in the context of more advanced techniques; further develop their knowledge of mathematical concepts and principles and use this knowledge for problem solving; appreciate the interconnectedness of mathematical knowledge; devise mathematical arguments and present them precisely and logically; integrate information technology to enhance the mathematical experience; develop the confidence to apply their mathematical skills and knowledge in appropriate situations; develop creativity and perseverance in the approach to problem solving; derive enjoyment and satisfaction from engaging in mathematical pursuits, and gain an appreciation of the beauty, power and usefulness of mathematics. By the end of this course, students will have a suitable foundation in mathematics for advanced mathematics courses and in related subjects. The content themes or topics should include, but not be limited to, the following:
- Complex numbers, Indices and radicals, Matrices, Factors, polynomials, and rational expressions
- Simultaneous equations, Functions, Logarithmic and exponential functions, Geometry, Transformations and vectors, Coordinate geometry, Probability, Statistics

AS Level Mathematics: Pure Mathematics and Mechanics
Major Concepts/Content: The purpose of this course is to enable students to develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject; acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying; develop the ability to analyze problems logically, recognize when and how a situation may be represented mathematically, identify and interpret relevant factors, and, where necessary, select an appropriate mathematical method to solve the problem; use mathematics as a means of communication with emphasis on the use of clear expression; and acquire the mathematical background necessary for further study in this or related subjects. The content themes or topics should include, but not be limited to, the following:
- Pure Mathematics I: quadratics, functions, coordinate geometry, circular measure, trigonometry, vectors, series, integration, differentiation
- Mechanics I: forces and equilibrium, kinematics of motion in a straight line, Newton’s laws of motion, energy, work, and power

Major Concepts/Content: The purpose of this course is to enable students to develop an understanding of mathematical principles and an appreciation of mathematics as a logical and coherent subject; acquire a range of mathematical skills, particularly those which will enable them to use applications of mathematics in the context of everyday situations and of other subjects they may be studying; develop the ability to analyze problems logically, recognize when and how a situation may be represented mathematically, identify and interpret relevant factors, and, where necessary, select an appropriate mathematical method to solve the problem; use mathematics as a means of communication with emphasis on the use of clear expression; and acquire the mathematical background necessary for further study in this or related subjects. The content themes or topics should include, but not be limited to, the following:
Pure Mathematics I: quadratics, functions, coordinate geometry, circular measure, trigonometry, vectors, series, integration, differentiation
Probability and Statistics I: representation of data, permutations and combinations, probability, the normal distribution

2. English (All students will be enrolled in this course.)

AS Level English Language and Literature
Major Concepts/Content: The purpose of this course is to provide students with an understanding of the semantic, structural, and rhetorical resources of the English language as well as the various styles, genres, and periods of English literature. Students will create critical and informed responses to texts in a range of forms, styles, and contexts while developing the interdependent skills of reading, analysis, and research. Students will demonstrate a knowledge and understanding of English language and its use in a variety of contexts. Students will engage in the careful reading and critical analysis of imaginative literature of various styles, genres, and periods, thus developing independent critical competency in the study of literature and fostering a high level of achievement in reading, writing, and speaking. Students will also acquire an understanding of the resources of the language and of the writer’s craft. The course also provides a variety of writing opportunities calling for the use of different styles and tones. Students will write clearly, accurately, creatively, and effectively for different purposes/audiences, using different forms. The content themes or topics should include, but not be limited to, the following:
- Using the writing process for various purposes with attention to style and format
- Using effective listening, speaking, and viewing strategies in informal and formal situations
- Understanding the power of language as it impacts readers, writers, listeners, viewers, speakers, and society as a whole
- Responding critically and aesthetically to fiction and nonfiction
- Completing an in-depth study of literary works and authors selected from the AS Level English Literature and Language list of prescribed texts and authors
- Using an in-depth reading process to construct meaning using technical, informative, and imaginative texts
- Understanding and analyzing literary texts with a focus on particular structures, styles, themes, and literary techniques
- Responding critically and aesthetically to fiction and nonfiction

Science (Students must select one.)

AS Level Biology
Major Concepts/Content:
The purpose of this course is to provide exploratory experiences, laboratory experience, and real-life applications in the biological sciences in an accelerated fashion. Students will become confident citizens in a technological world with an informed interest in scientific matters; recognize the usefulness (and limitations) of the scientific method and its application in other subjects and in everyday life; and be suitably prepared for studies in biological sciences in continuing A Level courses.
The content themes or topics should include, but not be limited to, the following:
- The nature of science
- Matter, energy, and chemical life processes
- Cells: biology, reproduction, and communication
- Levels of organization, classification, and taxonomy
Evolution: biological selection, adaptations, and changes through time; Structure, function, and reproduction of plants, animals, and microorganisms; Ecology: interdependence of organisms, humans, and the environment

AS Level Chemistry
Major Concepts/Content: The purpose of this course is to provide exploratory experiences, laboratory experience, and real-life applications in the chemical sciences in an accelerated fashion. Students will become confident citizens in a technological world with an informed interest in scientific matters; recognize the usefulness
(and limitations) of the scientific method and its application in other subjects and in everyday life; and be suitably prepared for studies in chemical sciences in continuing A Level courses. The content themes or topics should include, but not be limited to, the following:

- Particulate nature of science
- Experimental techniques
- Atoms and molecules: structure and bonding
- Periodicity: elements and compounds
- Chemical reactions and equations
- Stoichiometry
- Acids, bases, and salts
- Metals and redox
- Organic chemistry
- Environmental chemistry
- Biochemistry

4. Fine Arts (Students must select one.)

AS Art and Design

Major Concepts/Skills:

The purpose of this course is to enable students to communicate and express through visual perception and aesthetic experiences an artistic language in addition to those used by literary, mathematical, scientific, and factually-based subjects. This studio-based language will enable students to develop their abilities of observation and analysis of the visual world, sensitivity, skill, personal expression, and imagination. Students should also learn to relate these skills to an enhanced knowledge of their own and other cultures, past, and present, and an appreciation of practical design problems. The content themes or topics should include, but not be limited to, the following:

- The ability to perceive, understand, and express concepts and feelings
- The ability to record from direct observation and personal experience
- The ability to communicate by using appropriate materials and techniques in a disciplined way
- Experimentation, innovation, and the use of intuition and imagination

Drama

Major Concepts/Skills:

The intent of this course is to develop students’ understanding of drama through practical and theoretical study.
The student will develop skills in drama, both individually and in groups, and will study ways of communicating ideas and feelings to an audience, stimulating the enjoyment of drama. Students should be able to understand performance possibilities of text and other stimuli while demonstrating an ability to devise dramatic material. Students will also be assessed on performance skills in drama.

The content themes or topics should include, but not be limited to, the following:

- Theater terminology
- Characterization, role, movement, and vocal production
- Pantomime and improvisation
- Pacing, contrast, dynamics, spatial awareness, physicality, and tension
- Identifying, developing, and interpreting dramatic material
- Acting a role with fluency and commitment
- Recognition of and acting upon dramatic stimuli
- Technical theater and design: role of set, lighting, sound, costume, and make-up
- Roles of actor, director, stage manager, and technician
- Playwriting and artistic discipline
- Script selection and evaluation
- Theatre history and influences
- Audience etiquette
- Relationships between theater arts and other subject areas

5. World Languages (Student will be enrolled in the third year of their selected language.)

AS Level Spanish

Major Concepts/Skills: The purpose of this course is to develop students’ ability to understand and communicate confidently and clearly in spoken and written Spanish. Students will be encouraged to read widely, use relevant vocabulary, and employ correct grammar, spelling, and punctuation in Spanish. The students will develop the ability to analyze, synthesize, make inferences, and organize arguments and ideas logically in Spanish. The content themes or topics should include, but not be limited to, the following:

- Prepare sustained speeches and presentations on a specific topic
- Express opinions, ideas, and feelings in a conversation
- Read and respond to a variety of literature
Listen and respond to native Spanish, to many different kinds of broadcasts and recordings
Write at a variety of levels and for a variety of audiences

Mandarin Chinese III

The purpose of this third course in Mandarin Chines is to enable students to develop the ability to use the language effectively for purpose of practical communication within the country of residence, where appropriate, and in all countries where Chinese is spoken. Students in this course will develop insights into the culture and civilization of Chinese-speaking countries. The emphasis of this course is for students to communicate accurately, appropriately, and effectively in Chinese speech, as well as to write in past, present, and future at a novice-high to intermediate-low level. Students will also understand and respond imaginatively at a novice-high to intermediate-low level to what they hear, read, and experience in a variety of Chinese media.

The content themes or topics should include, but not be limited to, the following:

Everyday activities: home life and school; food, health, and fitness

Personal and social life: self, family, and personal relationships; vacations and special occasions

The world around us: hometown and local area; natural and made environment; people, places, and customs

The world of work: continuing education; careers and employment; language and communication in the workplace

The international world: tourism at home and abroad; life in other countries and communities; world events and issues.

6. Capstone III (All students will be enrolled in this course.)

Philosophy 2
Partnership & Community Development: How can I work with others to impact my community?

Students will continue their individual and/or group ventures and explore the connection of their venture with their community.

7. Electives (Students will be enrolled in two elective courses. However, they should select their top 4 choices in rank order. Enrollment in electives will be based on student interest and staffing.)

Communications and Public Speaking

Public Speaking courses enable students, through practice, to develop communication skills that can be used in a variety of speaking situations (such as small and large group discussions, delivery of lectures or speeches in front of audiences, and so on). Course topics may include (but are not limited to) research and organization, writing for verbal delivery, stylistic choices, visual and presentation skills, analysis and critique, and development of self-confidence. A Forensic Speech Competition may be an included element of this course. It offer students the opportunity to learn how to use oral skills effectively in formal and informal situations. Students learn such skills as logic and reasoning, the organization of thought and supporting materials, and effective presentation of one’s voice and body. Often linked to an extracurricular program, these courses introduce students to numerous public
speaking situations, and they learn the methods, aims, and styles of a variety of events (e.g., formal debate, Lincoln-Douglas debate, expository speaking, radio broadcast, oral interpretation, and dramatic interpretation). Participation in competition is encouraged, but not always required.

Sociology

Learners explore aspects of social relationships, processes and structures; as a result, they develop a greater understanding of human societies and the role of continuity and change in social life. Learners are encouraged to evaluate critically a variety of different social, economic and political structures, thereby learning more about the sociological method, and developing an ability to assess different forms of information and evidence. By relating the syllabus to the local context, teachers can help learners apply their developing sociological knowledge and understanding to the analysis of their own lives and their participation in society.

Business Studies

This course develops learners' understanding of business activity in the public and private sectors, and the importance of innovation and change. Learners find out how the major types of business organization are established, financed and run, and how their activities are regulated. Factors influencing business decision-making are also considered, as are the essential values of cooperation and interdependence. Learners not only study business concepts and techniques but also enhance related skills such as numeracy and enquiry.

Academic Apprenticeships

The ASU Academic Collegiate Apprenticeships, under the Collegiate Scholars Program, provides opportunities for students to experience ASU, investigate educational/career goals, and build lasting relationships with peers and mentors who share similar academic and personal interests. This course will provide an opportunity for students to observe and gain hands-on experience in an academic setting while establishing a well-defined connection between education and employment. *Students are selected for an ASU Academic Apprenticeship based on an application process that includes school attendance and behavior, grade point average (3.0 minimum), letter of recommendation by faculty, and a personal statement. Student must be at least 16 years of age and in their junior year of high school.

Engineering 101 (Course Description TBD)

Programming (Course Description TBD)

***The following elective options are available through ASU Online. Tuition is required for these courses as college credit will be awarded. Current ASU online tuition is $442 per credit hour. The 2013 fall tuition rate has not yet been released.

MAT110- Enhanced Freshman Mathematics (This course would be in addition to the AS Level Mathematics course.) The course will be located on the ASU Prep campus. 3 credits

Individually pace, computer-mediated course designed to prepare students for college-level mathematics. Students work on various modules in an online adaptive learning technology platform created to help students progress through the course material. Upon completion of this course, students should see improvement of basic math skills, an increase in the confidence in mathematical abilities, and advancement in ability to relate math to real-life applications. Mathematics Placement test required.

MAT117 College Algebra (This course would be in addition to the AS Level Mathematics course.) the course will be located on the ASU Prep campus. 3 credits Additional $100 course fee

Linear and quadratic functions, systems of linear equations, logarithmic and exponential functions, sequences,
series, and combinatorics; Prerequisite MAT110 or score of 40% or higher on mathematics placement test

AST 111- Introduction to Solar Systems Astronomy 3 credits

The course will be located on the ASU Prep campus; Additional $75 course fee

History, properties of light, instruments, study of solar system and nearby stars. For non-science majors.

SOC101- Introductory Sociology 3 credits

The course will be located on the ASU Prep campus.

Fundamentals of sociology, organization of human groups and society, processes of interaction, and social change

PSY 101- Introduction to Psychology 3 credits

The course will be located on the ASU Prep campus.

Major areas of theory and research in psychology; requires participation in department-sponsored research or an educationally equivalent alternative activity.

BIO130- Introduction to Environmental Science 4 credits

The course will be located on the ASU Prep campus.

Introduces the interconnected nature of Earth’s hydrosphere, lithosphere, atmosphere, and biosphere.

If you have any questions about the course descriptions, please contact Mrs. Schneider (lori.schneider@asu.edu) or Mr. Clifford (rtcliffo@asu.edu)
Class of 2015
Course Selection for Juniors

Return Completed Form by Monday, April 29.

Student Name:_______________________________________________________________________________

Required Courses in which you will be automatically enrolled:

AS Language and Literature
Capstone III

Required Math Courses for which you need to make a selection (Please check one of the following.):

__________IGCSE Additional Mathematics
__________AS Level Mathematics: Pure Mathematics and Mechanics
__________AS Level Mathematics: Pure Mathematics and Probability and Statistics

Required Science Courses for which you need to make a selection (Please check one of the following.):

__________AS Level Biology
__________AS Level Chemistry

Required World Language Courses for which you need to make a selection (Please check one of the following.):

__________AS Spanish
__________Mandarin Chinese III

Required Fine Arts Courses for which you need to make a selection (Please check one of the following.):

__________AS Level Art and Design
__________Drama
Electives: Please select 4 electives and identify in rank order your preference. For example, if Sociology is your first choice, right the number 1 on the line next to it. Students will be enrolled in 2 electives based on student need and faculty. Please remember that all ASU Online courses have a tuition requirement for which ASU Prep is not responsible.

_________Communications and Public Speaking
_________Sociology
_________Business Studies
_________Engineering 101
_________Programming
_________Academic Apprenticeships (Enrollment is dependent on successful acceptance of application requirements.)
_________MAT110 (ASU Online)
_________MAT 117 (ASU Online)
_________AST 111 (ASU Online)
_________SOC 101 (ASU Online)
_________PSY 101 (ASU Online)
_________BIO130 (ASU Online)

Student Signature:_____________________________________________________________________
Date:___________________

Parent Signature:______________________________________________________________________
Date:___________________