

STUDENT REGISTRATION GUIDE 2015-2016



SCHOOL OF ENVIRONMENTAL STUDIES
11-12 HIGH SCHOOL

School of Environmental Studies 11-12 High School

**12155 Johnny Cake Ridge Road
Apple Valley, MN 55124
952-431-8750**



It is the policy of Independent School District 196 that all students will have equal opportunity to participate in course offerings, counseling services, cocurricular activities and use of school facilities.

District 196 does not engage in unlawful discrimination on the basis of race, color, creed, religion, national origin, sex, marital status, disability, status with regard to public assistance, sexual orientation or age. The School District Attorney, 3455 153rd Street West, Rosemount, MN 55068, 651-423-7883, has been designated to respond to inquiries regarding the non-discrimination policies, including inquiries under Title IX.

SPECIAL MESSAGE TO STUDENTS AND PARENTS

**School of Environmental Studies
11-12 High School
Rosemount/Apple Valley/Eagan School District/Independent School District 196**

Dear SES Students:

Welcome to the School of Environmental Studies. We have designed a program of studies that offer several unique and innovative courses of study.

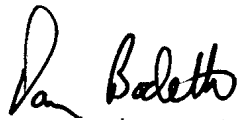
This guide is a catalog of courses and programs offered during the school year at the School of Environmental Studies. Please keep it for reference throughout the year.

Course offerings are listed by theme and by department alphabetically. A brief description of each course, including the prerequisites, is listed so you will know if you qualify to study a specific course. Also included in this guide is information about the requirements for graduation, the maximum and minimum number of courses which you may take, and other general information that will help you to get the most out of your high school years.

During January and February, this guide will be used by the counselor to help you and your parents select the courses that you will be studying for the school year.

The entire staff at the School of Environmental Studies wishes you the best of success in pursuit of your education and interests.

Sincerely,

A handwritten signature in black ink that reads "Dan Bodette". The signature is written in a cursive style with a large initial "D".

Dan Bodette, Principal

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SES Course Guide

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REGISTRATION INFORMATION

General Information

This Student Registration Guide is designed to provide students, and their parents, with an easy-to-use planning tool for making next year's course selections at the School of Environmental Studies. In order to select an appropriate school program, students need to consider their individual abilities, aptitudes, interests, academic strengths and limitations, future career goals, District 196 graduation requirements, and, finally, the course offerings at SES. Excellent resources for information and advice are students' parents, counselors and classroom teachers. In addition, important items of information are summarized on the following pages.

Student Registration and Scheduling Steps

There are two major steps involved for students in planning for their next year's program of studies: 1) registration and 2) scheduling. During January, SES Registration Guides and Registration sheets for the following year are distributed. Students then register for courses; that is, they select their programs of studies for the next school year. Based on student registration data, the school principal will determine courses/sections to be offered, staff needed, and a master schedule of classes for the next year. **Therefore, students should register with care and after consultation with parents.**

After students' **registration** plans have been approved by parents and counselors, the administration will follow the plan below as we **schedule** classes for students for the fall, winter and spring trimesters.

Student Registration and Scheduling Calendar

January/February Students in grades 10-11 **register** for courses at SES for next year.

March/April Principal identifies the exact number of teachers who will be required to provide requested classes for SES students.

The master schedule of classes is built using registration requests from students and teachers selected to teach at SES.

Student registration requests are loaded into the master schedule.

Graduation Requirements

To be eligible for graduation, a student must have earned a total of 66 credits (minimum) in grades 9 through 12. Many students accumulate far more than the minimum number of credits during their high school studies. All students are encouraged to select more than the minimum of required courses in order to take advantage of the broad scope of course offerings.

The School of Environmental Studies is on a **trimester** system with a **four-period school day**; each trimester is 12 weeks long. For each course taken and passed, students earn 1 credit. For example, if a student in grade 11 takes (and passes) 7 courses each trimester, he/she will have earned 21 credits toward graduation: 7 credits x 3 trimesters = 21 credits earned that year.

Note: Some courses, such as Thematic Studies, meet for more than one class period and are worth more than one credit. These exceptions are noted in the course guide. The number of courses taken each year will depend upon student individual needs and interests. **In no instance shall a student be enrolled for fewer than 6 credits each trimester.**

Summarized on the following page are the general registration requirements for each grade.

DISTRICT 196

Graduation Requirements

In order to graduate from any high school in District 196, students must:

- 1) **Satisfactorily complete 66 credits of coursework at the high school level, grades 9-12 inclusively, as specified below:**
 - English/language arts – four years (12 credits);
 - Social studies – four years (12 credits) encompassing U.S. history, geography, world history, economics and government/citizenship;
 - Science – three years (nine credits) including biology;
 - Mathematics – three years (nine credits) encompassing algebra, geometry, and statistics and probability;
 - Arts – one course (one credit) as determined by each high schools registration guide;
 - Health – two courses (two credits);
 - Physical education – four courses (four credits);
 - Safety education – one course (one credit), and
 - Other – 16 credits, of which not more than 12 credits of instrumental and/or vocal music may be applied toward fulfillment of the graduation requirements.
- 2) **Pass Minnesota GRAD tests in reading and written composition.**
- 3) **The class of 2016 must meet state requirements in GRAD/MCA by:**
 - Reading: Receive a passing score on the MCA or GRAD exam or take one of the following exams: ACT, SAT, ACT Compass or WorkKeys, Accuplacer, ASVAB.
 - Math: Receive a passing score on the MCA or GRAD exam or take one of the following exams: ACT, SAT, ACT Compass or Workkeys, Accuplacer, ASVAB.
 - Writing: Receive a passing score on the GRAD exam or take one of the following exams: ACT with Writing, SAT with Writing, WritePlacer, ACT WorkKeys or Compass Writing Skills Placement, ASVAB.

** Adjustments to the graduation requirements for upcoming classes may be made in response to changes in state and federal laws*

Four-Year Planning Worksheet

| | Trimester | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|--------|--------|
| | Fall | Winter | Spring |
| Grade 9 Planning Worksheet | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| 18 Total Required Courses (minimum) | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| <hr/> | | | |
| Grade 10 Planning Worksheet | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| 18 Total Required Courses (minimum) | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| <hr/> | | | |
| Grade 11 Planning Worksheet | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| 15 Total Required Courses (minimum) | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| <hr/> | | | |
| Grade 12 Planning Worksheet | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| 15 Total Required Courses (minimum) | _____ | _____ | _____ |
| | _____ | _____ | _____ |
| <hr/> | | | |
| Grade 9 _____ + Grade 10 _____ + Grade 11 _____ + Grade 12 _____ = _____ | | | |
| Total credits must equal or exceed 66. | | | |
| <hr/> | | | |
| Four-Year Planning Worksheet | | | |
| <ul style="list-style-type: none"> • Develop a complete list of classes you will take during your remaining year or years in high school. • Be sure to check that you satisfy the prerequisite for each course. • Remember your required courses. • The SES Career Center is available for student/parent use to assist in answering career planning questions regarding college, military, vocational training, apprenticeships or job-seeking strategies. | | | |

The SES Comprehensive Curriculum

The School of Environmental Studies offers courses designed to meet the needs of students across a broad range of abilities, interests and post-high school aspirations. However, certain courses are focused on special needs of students.

Advanced Placement courses are offered to meet the special needs of exceptional students interested in testing and extending their personal and intellectual limits in the classroom. They offer college-bound students the opportunity to earn college credit while in high school, through the Advanced Placement examinations, which are optional for students and are administered through the nonprofit College Board for a student-paid fee.

Advanced program offerings can be found in most departments. In each case, the course is outlined in the course description, along with a note identifying which course is geared for the high performing, college-bound student.

Noncollege-bound students will find courses offered throughout the curriculum that are designed to provide a liberal exposure to academics and experiences in a variety of subject areas, along with opportunities which provide a focus on a vocational interest/skill.

Special Education Programs The SES Special Education Program provides a continuum of services for students with identified and documented disabilities, which significantly interfere with the learning experience.

Special Education services are offered to those students who have gone through the district child study (or IEP) process and meet the state and district criteria for qualification. This procedure involves referral to the child study team, assessment and program decision-making with staff, parents/guardians and the student. Special Education services at SES occur within the regular mainstream curriculum and classrooms or in the Study Lab Resource area in the school library. Alternate special education classes, like those offered at the student's home high school, are generally not available at SES due to the interdisciplinary nature of the SES curriculum. Services include identification and implementation of appropriate accommodations, support and guidance as needed; coordination of communication between parties involved and post-secondary special educational guidance when needed. Students who have an active IEP from their home high school should contact their case manager to have their IEP and most recent assessment report transferred to SES Special Education. It is advised that an SES Special Education Coordinator be involved in the registration and transfer process of all students who have an IEP.

College-Bound Students

College entrance requirements vary. Some institutions of higher learning require many selective courses while others will accept students with a high school diploma. For this reason, college-bound students should make contact with the school counselor to become familiar with the entrance requirements of their chosen colleges. The specific college catalog should be read for complete information.

Most colleges in Minnesota require students to be in the upper half of their graduating class and perform satisfactorily on an entrance test such as the American College Test (ACT) or Scholastic Aptitude Test (SAT). **Colleges look with favor upon the student who has earned better than average grades, but who has also taken college preparatory subjects and has been involved in cocurricular activities.**

As a general rule, college-bound students should take at least 3 years of math (through higher algebra) and 3 years of science (such as biology, chemistry and physics). Students planning to pursue courses in engineering, architecture or any of the scientific fields should complete courses in beginning algebra, geometry, higher algebra, trigonometry and AP Calculus. Chemistry and physics are frequently considered essential. Students are strongly encouraged to enroll in 2-4 years of study in world languages for college preparation.

Vocation-Bound Students

For those students who are planning a specific career immediately after high school, the courses selected should be chosen with vocational preparation in mind. Students should choose courses which provide a broad base of preparation for the future. Therefore, **vocation-bound students should select a variety of subjects.**

Good grades are important to students, in addition to the development of a good general school record. The importance of positive attitudes about school, as well as good study habits, should not be underestimated. Prospective employers are very interested in applicants' records of absences, tardiness and effort in school work.

Post-high school training opportunities should be explored by vocation-bound students.

Technological advances have increased the need for specialists in many fields. Therefore, students should strongly consider attending a business, trade or technical school after high school. The Dakota County Technical College (DCTC) offers post-high school training in many fields. Many students plan to further their education in the military. Students who plan to attend a technical school while in the Armed Forces should plan their high school courses accordingly.

A good mathematics background (at least beginning algebra and geometry) is required for post-high school, vocational school and Armed Forces training in such fields as drafting, electronics, construction and machine trades. Business, technical and trade schools are emphasizing the importance of good communication skills in reading, writing, speaking and listening. Employers often hire applicants with certain expectations about their potential for future advancement. Therefore, it is most important that vocation-bound students plan their high school courses with care.

Minnesota Post-Secondary Enrollment Option

Eligible juniors and seniors at SES may enroll at Minnesota post-secondary institutions on a full or part-time basis. Students may take classes for either secondary or post-secondary credit. The purposes of the program are to promote rigorous educational pursuits and to provide a wider variety of options for students.

Pass/No-Credit System

Students may take one class each trimester (**3 credits** each year) on a “Pass/No-Credit” basis. This option is to encourage students to explore interests in a subject and yet not risk receiving a low grade.

Procedure: Students must apply within the first 10 school days of the trimester. Written permission of parents is required. Application forms are available in the Guidance and Counseling Office. “Pass/No-Credit” students will take all tests, turn in all regular class work and receive marks along with the other students. The final mark will be a “Pass” if the student completes all work at the passing level. The final mark will be “No-Credit” if the student does **not** complete all work at the passing level. A credit toward graduation will be granted for a “Pass” mark. No credit toward graduation will be granted for a “No-Credit” mark. Subjects taken on the “Pass/No-Credit” basis will not be averaged into a student’s class rank or honor roll standing. The SES attendance policy will be in effect for students choosing the Pass/No-Credit option.

Human Sexuality and HIV/AIDS Prevention Curriculum

District 196 teaches students human sexuality curriculum and HIV/AIDS prevention curriculum. Course descriptions in this catalog identify where this curriculum is taught. If you would like specific information about what is taught in these areas, please contact your school principal. Parents who are uncomfortable with the curriculum after talking with the principal may withhold their student from specific class sessions in which these curricula are taught.

Failures and Incompletes

When a student is having academic difficulty in a class, the teacher should be consulted for assistance. It is also suggested that the student inform his/her counselor of the problem, especially if grades in more than one class are being affected.

Students who fail a required class should see their counselor without delay to make arrangements for repeating the course. *Failure to make up required courses will jeopardize a student’s graduation.* Credits for failed elective subjects must also be made up. The advice of the school counselor must be sought in deciding which classes are to be repeated and where substitute credits are acceptable. This would also apply to students who receive grades of NC or Failure due to poor attendance.

Incomplete grades are assigned at the discretion of the teacher to those students who have not completed required class assignments/expectations or who have not met course outcomes and competencies during the trimester. When students receive an “Incomplete” grade they should see their teacher as soon as possible to arrange for needed make up work. The deadline for making up an incomplete grade is Friday of the 2nd week in the next trimester. *Incomplete grades that are not made up will result in failure of the course and loss of credit.*

Transfer Credits

Students requesting the transfer of credits earned in other educational settings (alternative schools, summer college courses, language camps, etc.) must obtain prior written permission. Transfer credit request forms may be obtained in the Guidance/Counseling office.

Cocurricular Activities

District 196 believes that cocurricular programs play a substantial and important role in providing successful and meaningful educational experiences for students. Cocurricular activities provide at least four educational benefits for students.

1. They promote cognitive, affective and psycho-motor growth and development;
2. They are well-guided activities which utilize student time in an excellent educational environment;
3. They provide opportunities for students to find new friends;
4. They promote good self-concept, positive school attitudes and better school academic achievement.

The School of Environmental Studies suggests that all students participate in at least one or more cocurricular activities during the year. All cocurricular activities that are offered at the home high school are available to our students at their home high school.

Minimum Requirements for Students Entering NCAA Division I or Division II Institutions

Many college sports are regulated by the National Collegiate Athletic Association (NCAA), an organization founded in 1906 that has established rules on eligibility, recruiting, and financial aid. The NCAA has three membership divisions – Division I, Division II, and Division III. Institutions are members of one or another division according to the size and scope of their athletic programs and whether they provide athletic scholarships.

If you are planning to enroll in college and wish to participate in Division I or Division II sports, **you must be certified by the NCAA Initial-Eligibility Clearinghouse.**

The Clearinghouse will analyze your academic information and determine if you meet the NCAA's initial-eligibility requirements.

To be certified by the Clearinghouse, you must:

Graduate from high school: You should apply for certification *before* graduation. If you appear to meet NCAA requirements, the Clearinghouse will issue a *preliminary certification* report. After you graduate, the Clearinghouse will review your final transcript to make a *final certification* decision.

Earn a grade-point average of at least 2.00: (on a 4.00 scale) in a core curriculum of at least 13 academic courses taken during grades 9 through 12, including at least: four years of English, two years of math, two years of social science, two years of natural or physical science (including at least one laboratory class, if offered by the high school), and one year of additional academic courses (math or a natural/physical science).

Earn a composition score of at least 17 on the ACT or a combined score of 700 on the SAT: Note: Effective **August 1, 1995**, the minimum test-score requirement for Division I will be determined by an initial-eligibility index.

Certification processing for students planning to enroll as college freshman will begin August 1st.

It is your responsibility to make sure the Clearinghouse has the documents it needs to certify you. These documents are: **your completed and signed Student Release Form and fee; your official high school transcript; and your ACT or SAT scores.** If you desire further clarification or information, contact the guidance office.

Cocurricular Programs Requiring a Study Hall

Participation in a cocurricular program may require a student to enroll in a specific study hall (seventh period at the home high school) which will be used for practice. This requirement is due to the availability of practice facilities beyond the control of SES. Programs which require a cocurricular study hall include boys and girls golf, figure skating and hockey. **Note: Students may not register for a cocurricular study hall without the written permission of a head coach.**

SES COURSE GUIDE

The major part of this guidebook consists of course descriptions. Listed below are notes about these course descriptions.

1. Courses are organized by required Thematic Studies, Intensive Theme Electives, and by departments. Disciplines are listed in alphabetical order, beginning with Art and ending with Technology. The page numbers for the themes and departments are listed in the Table of Contents.
2. Grade 11 Environmental Studies are offered only to 11th grade students.
Grade 12 Environmental Studies are offered only to 12th grade students.
3. Each course has its own number, is one trimester (12 weeks) in length, and is worth one credit (unless otherwise stated in the course description).
4. Note prerequisites (requirements needed before the student enrolls in the course).
5. Although each course is one trimester in length, some courses are intended to last the full year. These year-long courses are noted in the description. If it is required that students sign up for all three trimesters, the three courses and course numbers are listed together. **Students are strongly encouraged to sign up for all three trimesters for courses offered in a year-long sequence.**
6. Both the course title and the course number must be indicated by students on their registration sheets. Students may *not* enroll for the same course number and course title more than once (unless otherwise stated). If a course is listed again, with a different course number, it is considered a separate course and may be taken again by students if the grade level and prerequisite requirements are satisfied.
7. *The description for each course should be read carefully before course selections are made.* Additional course information is available from a classroom teacher in that department, the department coordinator, the school counselor or school administration.
8. This registration guide should be kept by the students throughout the school year. It is an essential planning tool for the course registration process in January. **All students are responsible for reading the information contained in this guide.**



GRADE 11 ENVIRONMENTAL STUDIES

This year-long sequence of courses is required for all 11th grade students at SES and provides three credits per trimester (nine credits per year). While team-taught and assessed in an integrated format, each course will receive individual credit.

| ENVIRONMENTAL STUDIES 11 | | |
|--------------------------|---------------------|----------------------------|
| 9111 Language Arts | 9211 Social Studies | 9411 Environmental Science |

Environmental Studies 11 is the core of studies at SES. Students will participate in an interdisciplinary curriculum that asks them to develop the skills and concepts of language arts, social studies and environmental science.

Each trimester, students will explore an environmental studies theme that focuses on an aspect of the question: **what are the relationships between humans and the natural world?** Students investigate questions leading to an understanding of the theme. Past theme questions included:

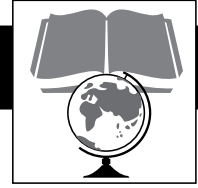
- Trimester 1: What is the relationship between humans and water?
- Trimester 2: How do humans and other organisms change as they interact with their environment?
- Trimester 3: How do humans view their relationship with nature?

Concepts and skills from environmental science, language arts and social studies are woven throughout the thematic, *interdisciplinary* curriculum.

- From the *environmental science* perspective, students will engage in in-depth inquiry into the scientific aspects of ecological and environmental issues. Students will gain a basic understanding of ecology and natural history.
- From the *language arts* perspective, students will develop their skills in critical reading, writing and thinking as they analyze significant works of both fiction and nonfiction literature from a variety of times and places. Students will develop their skills in descriptive, analytical, persuasive and technical writing. Students will develop their presentation skills, as well as their ability to work effectively in cooperative groups.
- From the *social studies* perspective, students will develop the attitudes and skills of historical and geographic analysis while exploring themes of world history and philosophy. Students will gain a basic understanding of world cultures as well as world history, particularly of Western civilization.

As students work to gain understanding of environmental studies, they complete activities, projects and assignments that lead to a relevant, real-world assessment of their progress. Students will have the opportunity to participate in actual environmental or conservation issues through a variety of individual and group activities.

GRADE 12 ENVIRONMENTAL STUDIES



These year-long courses are required of all 12th grade students and provide three credits per trimester. While taught in an integrated format, each course will receive individual credit.

| | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| 9114 Language Arts <ul style="list-style-type: none">• Composition• American and World Literature• Research Paper Production | 9214 Social Studies <ul style="list-style-type: none">• Individual and Society• Government | 9414 Environmental Science <ul style="list-style-type: none">• Environmental Issues |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|

The senior continuation of the environmental studies core includes perspectives from environmental science and the humanities. The course will emphasize the social, economic, cultural, intellectual and political contexts of the relationship between people and the living planet. This course activity integrates and extends the knowledge and skills acquired in the environmental studies core from grade eleven.

Each trimester, students will explore an environmental studies theme that focuses on the issues surrounding global sustainability. The inquiry based environmental studies themes for each trimester are:

Trimester 1 The Dynamics of Diversity:

Exploring the Loss of Species, Genetic and Cultural Diversity

Trimester 2 The Challenges to Sustainability:

Population, Policy and Environmental Health

Trimester 3 Sustainable Futures:

Environmental Leadership and Sustainable Communities



GRADE 12 ENVIRONMENTAL STUDIES

The Environmental Science component of Senior Environmental Studies examines deeply interconnected systems tied to sustainability. Biodiversity, population biology, evolutionary change, and the environmental impacts of human actions are at the center of this examination. The student's ability to apply the unique tools of the scientist and to use objective problem solving techniques characteristic of scientific thought are expanded and refined. Through this component of the senior year, the student will have the opportunity to develop a solid scientific foundation for interpreting writings and media about the environment and for making decisions in a political world.

The Language Arts component of Senior Environmental Studies will continue to develop critical reading, thinking, and literary analysis skills. Students will interpret and respond to significant literary works from a variety of genres including: fiction, nonfiction, poetry and drama. As seniors, students will continue to expand their skills in narrative, persuasive, business, and scientific writing. Advanced public speaking skills include storytelling, dramatic acting, professional interviewing and debate, are highlighted at various points throughout the year.

The Social Studies element of Senior Environmental Studies focuses on the integration and application of the social sciences. Students will move beyond identifying and analyzing environmental issues to actually crafting strategies for sustainable living. The skills and concepts of sociology, anthropology, and psychology will serve as lenses to clarify the social dynamics of human communities. As they complete their focus on environmental challenges, students will emphasize the importance of economic and political awareness for effective leadership.

As closure to an intensive, full year investigation of the environmental issues that face our global population, SES seniors will have the opportunity to explore their own role as environmental leaders. Through a variety of individual and group activities and projects, the SES graduate will have the knowledge and skills necessary to model sustainable action as members of local, national, and global community.

INTENSIVE THEMATIC ELECTIVES



These courses are offered as short course electives the last 1-1/2 weeks of each trimester. Each short course provides one elective credit applied toward graduation. Intensive theme classes do not fulfill Social Studies or Language Arts credit requirements for graduation.

9937 Field Study: Costa Rica

Students will travel to Costa Rica and have an opportunity to learn about the rainforest ecosystem, the coastal ecosystems, and Costa Rican culture. Students may work on restoration projects in conjunction with local scientists or others. Travel arrangements and commitments will be completed at the beginning of the school year. Students will be expected to attend travel orientation meetings during the trimester preceding the trip. Students will be required to pay all travel expenses. Approximate cost: \$2,050.

9936 Field Study: Florida Marine Ecosystem (*offered in the fall of odd numbered years*)

Students will travel to Southern Florida and explore a marine ecosystem. The students will apply the skills learned in marine biology to a marine ecosystem. Travel will occur during the intensive theme elective time period with students returning prior to the beginning of the next trimester. Travel arrangements and commitments will be completed at the beginning of the school year. Students will be expected to attend travel orientation meetings during the trimester preceding the trip. Students will be required to pay all travel expenses. Approximate cost: \$980.

9946 Field Study: Alaska

Why was Alaska called “The Great Land” by its original residents? Students who go on the SES field study will come back with thousands of answers to that questions. Our journey will take us from Mt. McKinley in Denali National Park to the face of a glacier in the north Pacific. In between we will live in, on and around the forests and rivers, tidal wetlands and mountain peaks that dominate the 49th state. The course will examine the natural, cultural and political history of this complex place. Our special emphasis is on the challenges and triumphs of those creatures and people who have come to live on the Last Frontier. Our 14-day trip will take place during the spring Intensive Theme slot in late May and early June. Students will be required to pay all travel expenses. Approximate cost: \$1,850.

9949 Field Study: Diving Roatan

Extend your marine biology experiences in this Caribbean Coral Reef study. Students will become scuba certified on the beautiful Roatan Island. Come and explore the coral reefs, identify fish, discover the mangroves, and examine issues related to endangered species in the area. Learn about the ecology, geology, and history of the island. Approximate cost: \$2,000.



INTENSIVE THEMATIC ELECTIVES

9930 Field Study: Scotland (*offered every other year*)

The Scotland field experience will provide SES students the opportunity to learn about Scottish history, culture, and the array of environmental issues that are a part of Scotland today. Students will also be able to bike and hike some of the most beautiful Scotland countryside. Approximate cost: \$2,050.

9940 Field Study: Minnesota Winter Expedition

Join us in an adventure education setting with no mosquitos and little exposed skin on which to apply sunscreen! Explore the Minnesota arrowhead during the depths of February using some of the same techniques as the early trappers, explorers and scientists. During the expedition you will...

- travel with dog sleds, by snowshoe and cross country ski.
- sleep in unused forestry lodges, snow shelters and bunkhouses.
- cook hearty meals that mimic those of early explorers.
- study survival techniques and habitat of plants and animals of the region.
- sit outside on a frozen northern lake at midnight and hear the call of the wild.
- learn to play the harmonica.

Our primary goal will be to build an understanding of how life has adapted to survive in this unique environment. A secondary study will look at how humans have altered the environment to adapt it to fit their needs. By the time you return you will have lived your learning and learned to live in the great northwoods winter. Students will be required to pay all travel expenses. Approximate cost: \$350.

9948 Field Study: Ebb and Flow on the Mississippi

Do common patterns exist in physical, environmental and societal and change? Travel by bicycle to Pepin, Wisconsin while beginning your study of the bluffs and waters of the upper Mississippi in search of possible answers. You will learn and experience sailing in a large boat on Lake Pepin. Areas of study will include the science of air and water flow, the patterns of migration in the valley and the impacts of change on the flow of the Mississippi. Interaction with local experts, direct observation and campfire discussion, will provide a framework for student learning. Students will be required to pay all travel expenses. Approximate cost: \$380.

9945 Field Study: South Africa

Students will travel to embark on an African animal safari. This field study includes visits to game reserves and local villages. In addition to outstanding photographic opportunities, the focus of the safari will be an animal behavior study of large African mammals and the wildlife management of the reserves. Students will be required to pay all travel expenses. Approximate cost: \$1,600 plus airfare.

INTENSIVE THEMATIC ELECTIVES



9950 Field Study: American Outback (*offered in the fall of even numbered years*)

The American Southwest has some of the most fascinating landscapes in the world: high mountain forests, rocky canyons and gorges, and deserts which seem to stretch on forever. This region, dominated by the Colorado River, means different things to different people. To the ranchers it means a livelihood based on cattle and sheep, to the tourists it means numerous state and national parks to enjoy and explore, and to the native people it means a lost homeland. Through their own exploration, students will learn first hand about some of the area. There may also be opportunities for research in cooperation with some of the state and national parks. Students will be hiking and camping in a wide variety of weather conditions and should prepare accordingly. Students will be required to pay all travel expenses. Approximately \$980.

9943 Field Study: Superior Hiking Trail

Beyond the sweat, bonding, and immersion in mud, the Superior Hiking Trail 10 day intensive theme field experience offers our SES students an opportunity to explore the complexities of Minnesota's own Superior shore. In light of the SES mission, the emphasis of learning will be on each student's comprehensive understanding of the Superior Hiking Trail by backpacking and documenting their experiences along the way. Issues that will be incorporated range from wilderness management to Native and regional perspectives. Interviews with various parties will substantiate their learning. Students will document their experience through their chosen communication medium and excerpts will be exhibited at SES and a local wilderness outfitting store. Students will be required to pay all travel expenses. Approximately \$290.

9939 Field Study: Boundary Waters Canoe Trip

Leaving behind electricity, gas engines and other forms of civilization we set out in our canoes with all the supplies we will need for a week of exploration. Our trip will take us through rivers and lake systems that are essentially untouched by the BWCA travellers of the summer. We'll investigate the emergence of spring in this land just after it has lost the winter snow. The fantastic explosion of life will give us plenty to explore and learn about this very unique environment just out our back door. Our camping will be zero impact. The skills for this type of camping as well as the skills needed to travel over rivers and streams with all your gear will be a large part of the learning on the trip. Expect to grow in your ability to be aware of natural systems around you. Expect also to better understand the workings of groups as you will be travelling with only eight other people for the week. Everything from your cooking expertise to your ability to play the harmonica will grow as the group becomes solid and the boundary waters reveals its secrets. Students will be required to pay all travel expenses. Approximate cost: \$410.



INTENSIVE THEMATIC ELECTIVES

9931 Field Study: France/Spain

How is France dealing with issues of quality of life in their cities, suburbs, and rural areas? The field study's goal is to examine French choices about energy, transit, preservation of culture, regionality, and growth. The trip would be focused around the broader question: *What has history taught Europeans about creating sustainable communities?* Approximately \$2,300.

9938 Field Study: Australia

Australia Field Study: Join us on an animal safari "down under" as we explore the wildlife and natural areas of Australia. From kangaroos to wombats, from didgeridoos to the Indigenous peoples, adventure will abound. Costs will be \$1600 plus airfare.

9955 Field Study: Climbing Kilimanjaro

Explore the world of non-technical climbing by climbing Africa's largest peak. Kilimanjaro has much to offer the climber with beautiful vistas and a sense of climbing accomplishment. At the end of this field study, students will have the opportunity to go on safari in Lake Manyara National Park, Tanzania. Students must be in good physical condition to be a part of this expedition. Costs will be \$2100 plus airfare.

9933 Field Study: Iceland (*offered every other year*)

Discover the ever-changing landscapes of Iceland. Students will experience the hot and cold, bright and dim, black and white, high and low, waterfalls, hot springs, glaciers, fjords, lakes and lava fields to name just a few of the landscapes. There will also be an opportunity to discover the full flavor of Icelandic culture and history. Come along for the adventure. Approximately \$2,300.

9934 Field Study: Glacier National Park

Hike the wonderful scenery of Glacier National Park. Enjoy the vistas and the natural beauty the park has to offer. Discover the historical past and what the future holds for the park. Approximately \$950.

9944 Field Study: Galapagos Islands

Join us on an adventure of a lifetime as we explore the Galapagos Islands off the west coast of South America. Our travel includes transportation aboard a sailing vessel, guided walks on various lava formed islands and aquatic life study via snorkeling opportunities. Witness the wonders of the animal world of the Galapagos as we experience close-up encounters with sea lions, iguanas, Galapagos tortoises and magnificent sea birds. This 10 day adventure will cost approximately \$4,300.

INTENSIVE THEMATIC ELECTIVES



9929 Field Study: New Zealand

New Zealand's many national parks offer the best "tramping" in the world. Explore several of these parks on New Zealand's South Island. Tramp hut-to-hut and day hike in parks such as Abel Tasman, Kharungi, Nelson Lakes, Arthur's Pass, and Paparoa. Hike through old-growth forest rainforest, alpine highlands, along coastal and inland lakes, on tracks that offer stunning views of snow-capped peaks, waterfalls, rivers, and native bird watching. Stay in tents, huts, hostels, as you loop your way North from Christchurch coastal towns and the National Parks. Approximately \$1600 plus airfare.

9898 Field Study: Missouri Biking

Come and enjoy bicycling the Katy Bike Trail during the fall intensive theme trimester in Missouri. The Katy Trail is a nationally known bike trail with over 200 miles of beautiful scenery along the Missouri River. Cost will be \$600.

9932 Field Study: Peru

Enjoy a wonderful adventure to the tropical rain forests of Peru and visit the ancient Mayan city of Machu Picchu. Students will have a chance to hike through some of the most beautiful rain forests on the planet and learn about the Mayan culture. Cost will be \$2,000 plus air fare.

9901 Marine Biology I

In this course students will be introduced to the concept of marine ecosystems including oceanography, coral reefs, open oceans and the organisms present. Students will have an opportunity to study marine organisms found at the Zoo with help from the Zoo's ocean trail staff.

9913 Animal Behavior

This course will introduce students to the behavior of animals. Topics covered will include instinctive versus learned behavior, social behaviors such as territoriality, aggression, parenting, and appropriate study techniques. Students will gather and interpret behavior data from observations of Zoo organisms.

9927 Agroecology and Sustainable Food

Food production and preparation is an essential and revealing aspect of human culture. Exactly how is our food produced, distributed, and consumed: Are these current practices sustainable for a growing population concerned with environmental health? What alternatives exist and what role will they play in the future of agriculture? In this course, we examine the historical and cultural connections to the food we eat, in addition to a contemporary analysis of how food is produced, distributed, and prepared with an emphasis on sustainability. We examine personal decisions such as alternative diets and purchasing options, in addition to decisions we make as a society regarding chemicals and pesticides. The class travels to several unique locations to observe and meet with individuals who are involved with the sustainable agricultural methods and practices. Course fee: \$20.



INTENSIVE THEMATIC ELECTIVES

9921 Wilderness First Aid

Are you a camper and hiker? Do you like to spend time in remote places? Have you ever wanted a job at a summer camp or as an outdoor recreation leader? Then you would benefit from this course. In just seven days, students will acquire separate safety certifications from the American Red Cross in Adult/Child CPR/AED (automated electronic defibrillator) and Wilderness First Aid. Certifications of this type are normally quite expensive, so this is a unique opportunity, an excellent investment of your time, and could land you a summer job. Course fee: \$85.

9912 Scuba Certification Course

This class will provide classroom and pool time necessary to complete the scuba certification process. The class will be conducted with assistance from a local scuba certification organization. The final exam will be an open water dive in a Minnesota lake. Students will be required to have a mask, snorkel and fins. Maximum student enrollment is 20 students. Approximate cost: \$350.

9924 “Eco-Architecture”: Building for the Future

“Eco-Architecture” will provide a broad range of experiences to acquaint the student with a career in architecture and related fields through specific, in-depth studies of various independent building/design projects. Emphasis will be on environmentally compatible building materials and designs. There will be a historical component of worldwide and traditional buildings with application of new techniques and materials to develop building concepts of the future. Students will compile a portfolio of drawings and scale models to present for a final grade.

9910 Lifetime Fitness

Students spend part of each day at the Lifetime Fitness Club in Eagan having access to the rock climbing wall, exercise equipment, exercise classes and gym time. The other part of each day is spent working on health-related curriculum. Students are required to read and take notes on materials that address some of the physical, nutritional, mental, emotional and social aspects of health. Course fee: \$60.

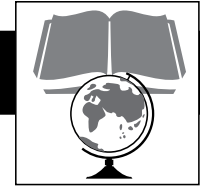
9905 Video/Multimedia Production I

Students will learn the scientific, electronic, artistic, and technical aspects of video ecology. Students will demonstrate an understanding of video cameras, editing systems, and computer generated graphics in a variety of hands-on laboratory exercises and video projects. Students will also learn how to integrate finished video products into multimedia presentations.

9907 Art Exhibit Development I

In this course students will work directly with the art instructor and other professional artists in the production of exhibits, displays, murals, or interpretive signs to be used at SES, the Zoo, or at other sites. Students will learn techniques used by artists to produce a variety of artistic creations used in environmental settings. Course fee: \$20.

INTENSIVE THEMATIC ELECTIVES



9914 Animal Care and Handling

In this course students will learn the principles of animal husbandry including animal diet and nutrition, observations and medical record keeping, and health and grooming. Students will have an opportunity to gain hands-on experience while helping with the daily care of domestic zoo animals. Zookeepers and SES instructors will co-teach this course.

9908 Art Exhibit Development II

Prerequisite: Art Exhibit Development I

In this course students will apply the skills and knowledge gained in Exhibit Development I through work on projects that will be used in Zoo or museum exhibits, traveling displays, or school demonstrations. Course fee: \$20.

9906 Video/Multimedia Production II

Prerequisite: Video/Multimedia Production I

Students will expand on skills and knowledge gained from Video/Multimedia Production I. Environmental education programs will be produced and shared with students from Independent School District 196 and other audiences.

9909 Wildlife Painting and/or Sculpture

Students will utilize painting and/or sculpture techniques to produce artistic works. Zoo plants, animals, and natural settings will serve as the subjects of student projects. Course fee: \$20.

9911 Outdoor Photography

Students will learn the foundations of basic black and white photography including camera and darkroom operations. More advanced students will be introduced to photographic accessories, techniques, and processes including color photography and photojournalism. Course fee: \$50.

9923 Philosophies of Indigenous Peoples: Where Earth and Culture Touch

How is it that we come to think about the environment? What is the role of culture in framing those thoughts? In this course students will investigate the philosophies of indigenous peoples from across the world as related to the environment. Issues will include land ownership, preservation of natural resources, spirituality, and contemporary conflict.

9915 Thinking Ecologically: Environmental Policies and Law

In this course students will investigate the history, intent and impact of environmental laws and government policy. Students will meet with environmental experts, lawyers and politicians practicing in the area of environmental policy and law. Through the use of a variety of case studies, students will also examine the potentials for the next generation of environmental policy and law.



INTENSIVE THEMATIC ELECTIVES

9925 Field Ornithology

Students will be introduced to basic bird identification and behavior for species found in and around the Zoo site and the Minnesota river valley. Special emphasis will be placed on migratory birds that winter in Central America. Activities will include bird banding, journaling, phenology, and the production of a personal life list.

9941 Winter Recreation

A fun and challenging PE course designed to explore ways to remain physically active during Minnesota's winter months. Activities may include ice skating, CC skiing, snowshoeing, snowtubing, indoor gym games, rock climbing and others.

There is an academic component requiring reading, writing and research skills as well. Class fee includes entrance/activity fees, equipment rentals and bus transportation for activities outside of the school district. Some carpooling to nearby activities may be necessary. Course fee: \$70.

9916 Winter Outdoor Recreation II

An introductory course in downhill skiing and/or snowboarding fundamentals using area ski hills. The schedule will include instruction and practice. Class fee will include lift tickets, lessons and rentals.

Course fee: \$120-\$130

9942 Spring Outdoor Recreation

An introductory course in watercraft safety and hands-on experience. Watercraft will include canoe, sailboat and fishing boat. Demonstration of proficiency and skill will be assessed. Freshwater fishing fundamentals, including fly fishing, will be presented, including species identification, fisheries management, lake topography readings, and catch-and-release philosophy. Class fee will include transportation, equipment rental and materials. Course fee: \$60.

9928 Poetry Workshop

In this course students will read, write, and critique poetry in an informal "writer's workshop" atmosphere. Students will read from a diverse group of contemporary poets. Poetic devices, symbolic language, and imitation writing techniques will be practiced, and each student will compile a personal anthology of his or her own poetry by course end. Course fee: \$20.

9899 Human Medicine: An Investigation

Students will explore the history of modern medicine, examine human anatomy and physiology and practice hands-on laboratory techniques. Field trips to local medical facilities will enhance an understanding of career options. Classroom research will focus on infectious disease: the prevention, transmission and cures.

INTENSIVE THEMATIC ELECTIVES



9920 A Capitol Voyage in Policy and Law

Some field studies travel to exotic lands, some to exotic ideas. This field study will take place primarily at the Minnesota State Capitol. How do legislators prepare for their service? What is the role of a lobbyist? How do citizens engage the insiders of the political process? What really goes on in committee meetings? Students will discover answers to these questions and many more as they meet the makers of Minnesota policy. This is a course of action as well as study and students will be expected to prepare an analysis of a key environmental issue and meet with legislators to present that analysis. A partnership with the Clean Water Action Alliance has made this unique opportunity possible.

9918 Wildlife Management

This introduction to Wildlife Management will focus on a basic understanding of wildlife management principles applied to a variety of real world projects. Projects will depend on the season but may include a study of fisheries, big game (whitetail deer, bear or moose), waterfowl (duck and geese) or upland birds (pheasants and grouse). Case studies will include wildlife relationships and habitat needs.

9903 Creative Writing: Landscapes and the Short Story

The landscape plays an important role in short stories from a variety of authors. The landscape within a story affects many components of fiction such as characterization, tone, and outcomes. This class will help students learn how to write a short story that emphasizes a particular landscape that they value. The students will also read a variety of short stories by well-known authors. They will write, revise, and present their own short stories to others. They will learn the basics of writing fiction while taking several field trips to various locations to immerse themselves in the experience. One evening or weekend will consist of an overnight with the presentations or final readings of the stories at the SES woods in Hayward. Cost of the class: TBD

9954 Environmental Action: Working in our Social and Natural Worlds

Students will learn about social and environmental justice issues through field experience and reflection. We will read, journal, and most importantly, have experiences face to face with diverse people and places. Our goal is to foster a greater awareness of service in our community.

9904 Theater in the City...Theater in the Wild

All the world's a stage....and you are merely the player, the playwright, the artistic director, the master of stagecraft and costume, tickets and publicity, and all and other sundry tasks required to let the show go on. Visit the world of the Guthrie, Park Square and Children's Theater. Go behind the scenes and perform in front of them. Follow the work from the first word to the first read through to the first blocking to the final dress rehearsal to the first performance. Final products will be in the form of theater for young people exploring the natural world and human interactions within that world. We will work with the Minnesota Zoo and The Living Green Expo to provide our work to the benefit and entertainment of others.



INTENSIVE THEMATIC ELECTIVES

9897 Circumpolar Studies

Circumpolar studies will introduce participants to the landscape, cultures, and issues of the circumpolar region. The course will begin by identifying the physical parameters of the circumpolar world and continue with an examination of the geography, biological systems, and physical systems of the region. The focus will then turn into an overview, historical to present day, of the indigenous people and cultures that inhabit this part of the world.

9956 Scientific Inquiry

This class is modeled after the television show myth busters. Numerous hands-on experiments will be performed to test a number of different theories. Students will have a chance to be involved and make informed decisions about every-day theories that are related to their lives.

9957 Storytelling: creating, crafting and telling folktales

“Stories change people. Storytelling is the heart of the human experience” (Cynthia Watts). Through the process of creating, crafting and sharing personal tales, oral histories, and folktales, students will participate in the age-old art of storytelling. This class will begin by exploring the creative process of telling personal stories and extend to the cultural and literary aspects of world folktales. After analyzing, crafting and telling their own folktales, the students will share the creative process and storytelling techniques with elementary school age students. The class will culminate with a “story swap” between the SES students and the elementary students they have worked with during the course of the class.

9902 United Nations

This class offers an in-depth analysis of the workings of the United Nations. It is designed to introduce students to activities within the global organization and to provide an understanding of international negotiations that unfold in the U.N. setting. It also includes an overview of current international issues and events in preparation for participating in U.N. model conferences in the Minnesota. Students may also attend regularly held U.N. meetings in New York.

9919 Typography and Graphic Design

This class will examine and gain an understanding of the function of typography as a communicative and graphical element. Through the structure of lectures, demonstrations, discussions, projects, and critiques we will explore basic components of typography including but not limited to: letterform anatomy, letterform analysis, measuring systems, typographic identification, practical issues of setting and using type effectively, form and counterform issues, hierarchy, legibility, type as conduit for meaning, and content as well as other issues related to visual problem solving through typographic form.

SES DISCIPLINE COURSE DESCRIPTIONS

Courses described in this section of the Registration Guide are trimester-long offerings. Courses listed as A, B, and C are sequential. Students are strongly encouraged to register for the year-long sequence where appropriate, such as in math, science, or advanced placement courses.



ART

The visual arts program is designed for students with the desire to express themselves through art materials, enrich their cultural awareness and, for some, explore career possibilities. The art courses are based on a discipline-based approach which incorporates history, evaluation, and aesthetic understanding. It is the goal of the art program to provide students with a journey of artistic discovery for creative self-expression and personal fulfillment while using right brain functions considered essential for tomorrow's leaders, inventors, thinkers and artists. Students will be expected to learn about, as well as to make, art.

Students who have had at least 1 high school semester of art and received an "A" or "B" recorded art grade and who have been in art at least 1 semester may be invited to join National Art Honor society. Additionally, motivated and artistically talented students may develop an advanced placement portfolio in independent art.

All students entering the art program should take the foundation design course (Survey Art A). For further study in the basic art education techniques and skills of drawing and painting, students should also take the second foundation course (Survey Art B). In the third foundation course (Survey Art C), students have the opportunity to explore the techniques and skills of two and three dimensional contemporary craft activities. Following these foundation courses students can take advanced study on an independent study basis with teacher supervision.

Fees will be assessed in all courses.

9633 Survey Art A

Grades 11, 12

Prerequisite: none

Survey Art A is a foundation course for the art program and is recommended for the student with both a general or in-depth interest in the visual arts. Students will explore the concepts of design with emphasis on the development of good composition and craftsmanship. Designing and painting materials will include construction paper, pencil, ink, color pencils, markers, oil crayons, and waterbase paints. Art appreciation, history, and evaluation will be incorporated into assignments. **Outside work will be required.** Course donation: \$25/trimester.

**9640 Survey Art B****Grades 11, 12****Prerequisite: Survey Art A**

Survey Art B is a foundation course of drawing and painting activities. Emphasis will be on skill development in the fine art techniques of drawing, watercolor and acrylic painting. Drawing medias will include pencil, color pencil, charcoal, pastels, conte crayons, and markers. Drawing techniques will include perspective, value rendering, and portrait drawing. Art appreciation, history and evaluation will be taught. **Outside work will be required.** Course donation: \$25/trimester.

9641 Survey Art C**Grades 11, 12****Prerequisite: Survey Art A**

Survey Art C is a general art course for students interested in learning about various contemporary craft activities. Emphasis will be on the application of design concepts in two and three dimensional art activities such as sculpture, ceramics, printmaking, jewelry, and fiber arts. Art appreciation, history and evaluation will be taught. **Outside work will be required.** Course donation: \$25/trimester.

9634 Independent Art A**Grades 11, 12****9635 Independent Art B****Prerequisite: Survey Art****9636 Independent Art C**

Advanced study will take place through the independent art class. Students will be able to explore their interests in an expanded capacity from the survey courses that are offered. Students may study ceramics, drawing, jewelry, painting, sculpture, communication arts, and others through independent art. The instructor will assist the student in independent art.

Independent art at all levels can select from personal assignments in wildlife art, computer graphics/design and recycled art forms, in addition to expanded art studies based in individual interests and abilities. Course donation: \$25/trimester.

9630 Advanced Placement: Art Studio A**9631 Advanced Placement: Art Studio B****9632 Advanced Placement: Art Studio C**

Motivated and talented students with advanced artistic abilities are offered the opportunity to earn college credits at the high school level by preparing a portfolio of art work. Permission of art teacher required. Course donation: \$25/trimester.

9651 Photography A

Students will learn basic photography methods to gain insight for lifetime enjoyment of cameras as well as seeing potential for a career in photo journalism, photography, and designing. Course donation: \$30/trimester.

9652 Photography B

Students will build upon the skills that were gained in Photography A. Course donation: \$30/trimester.



9653 Photography C

Students will build you the skills that were gained in photography A and B. Course donation: \$30/trimester.

9654 Independent Photography A

This course is provided for the interested and motivated photography student who will produce a portfolio of work beyond the previous level. Individual goals will be developed with the teacher for specific themes and techniques. Course donation: \$30/trimester.

9655 Independent Photography B

Students will be allowed to further explore and expand upon their photographic skills. Course donation: \$30/trimester.

9656 Independent Photography C

Students will be allowed to further explore and expand upon their photographic skills. Course donation: \$30/trimester.



AVID (Advancement Via Individual Determination) is a full-year course devoted to preparing students for the college experience. On Sky days, students work on organization and study skills; critical thinking and discussion; and WICOR methodologies (Writing, Inquiry, collaboration, Organization and Reading). On Earth days, students work in Collaborative Study Groups with an adult facilitator. On Fridays, students go on field trips (college visits, cultural field experiences, and/or work experience), listen to guest speakers, or participate in team building activities. This course is for elective credit. An application and interview process is required of students who are not already part of the program.

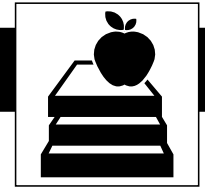
9854 AVID 11 A
9855 AVID 11 B
9856 AVID 11 C

Grades 11
Prerequisite: Application, Interview,
Teacher Recommendation

9857 AVID 12 A
9858 AVID 12 B
9859 AVID 12 C

Grades 11
Prerequisite: Application, Interview,
Teacher Recommendation

GENERAL ELECTIVES



9860 Film Study C

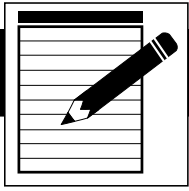
This course is more than watching movies, but a chance to learn about film techniques and analysis in order to gain a greater understanding and appreciation for this form. Through the course students will explore and demonstrate their understanding of film techniques and vocabulary, film production, the history of film, and characteristics of various film genres. The course will include film discussion, analysis, and evaluation.

9821 Leadership Seminar A

9822 Leadership Seminar B

9823 Leadership Seminar C

This year-long course for juniors is designed to help students develop leadership skills and global competency while studying a complex, multi-faceted environmental issue such as climate change. To apply what they are learning, students will engage in inclusive service learning through a virtual exchange with high school students from a school in another country. If the US Department of State grant that SES received in 2013-14 is renewed, students will have the opportunity to participate in a travel exchange to Costa Rica, or another country selected by the US Department of State. Students in the program will work with local environmental experts, and will develop and implement local service learning projects. Students may receive college credit for their work through the University of Minnesota. Students must apply for and be accepted into this program to register for the course.



LANGUAGE ARTS

Language Arts for 11th and 12th grade is part of the thematic studies sequence of courses. The Advanced Placement courses listed below are taken in conjunction with the Theme Language Arts class.

9131 Advanced Placement Language and Composition A Grade 11

9132 Advanced Placement Language and Composition B Prerequisite: strong language arts

9133 Advanced Placement Language and Composition C background and interest

This year-long course is designed for juniors who seek to improve their skills in critical writing and reading. Through the use of a process approach, students will work on improving the structure and style of their own writing. Students will develop their skills in rhetorical and literary analysis, focusing on the structure and style of nonfiction works by writers from various times and places. The course also helps students prepare for the optional Advanced Placement Exam in Language and Composition, which students may elect to take at their own expense.

9134 Advanced Placement Literature and Composition A Grade 12

9135 Advanced Placement Literature and Composition B Prerequisite: strong language arts

9136 Advanced Placement Literature and Composition C background and interest

This is a year-long course designed for seniors with special abilities in reading and analyzing literature. Students will study a selection of poems, plays, short fiction and novels with special emphasis on the critical skills needed in college to better understand literature. The course also prepares students for the optional Advanced Placement Exam in Literature which students may elect to take at their own expense.

LANGUAGES OF THE WORLD



The Languages of the World Department offers students the opportunity to explore the Spanish and French languages and cultures. Students will develop skills in speaking, listening, reading, and writing; acquire basic vocabulary; investigate the customs and geography of the Spanish and French-speaking countries. Students who wish to study a world language should sign up for three trimester courses in the selected language. Due to the increasing need for global awareness, world language study is recommended for all students.

NOTE: Because of increased language expectations beyond two years of study at many colleges and universities, the World Language Department recommends that college/ university-bound students consider three (3) years or more of uninterrupted language studies through the senior year. In addition, many SES students will be communicating with students from around the world on conservation issues.

NOTE: Placement of students with native capacities will be a decision of the World Language Department staff with prior approvals.

9831 Spanish IIIA

Grades 11,12

9832 Spanish IIIB

Prerequisite: Spanish IIA, IIB, IIC

9833 Spanish IIIC

Students will build upon grammar and vocabulary studied in Levels I and II by discussing travel, everyday concerns such as getting one's hair cut and going shopping, driving, health issues, means of communication, the media, music, art, interpersonal relations and celebrations, past cultures and civilizations, and professions. In addition, students will describe situations and objects, give and receive commands and directions, relate what happened in the past, express hopes and wishes, make excuses and give reasons, describe ongoing events, and talk about the future.

9834 Spanish IVA

Grades 11,12

9835 Spanish IVB

Prerequisite: Spanish IIIA, IIIB, IIIC

9836 Spanish IVC

Students will study about Spanish-speaking countries throughout the world and learn of Spain's influences in those countries. Major elements of this course will be: exercises and activities designed to increase students' oral proficiency, reading and writing practice, and grammar structures that will involve advanced sentence structures and communicative competency. Daily lifestyles, thought styles, geography, and comparative culture studies with countries of the Hispanic world will be explored through readings in literature, contemporary newspapers and magazines. Students will employ and perfect their skills for communication in listening, speaking, reading and writing the Spanish language.



LANGUAGES OF THE WORLD

9844 French IVA

Grades 11,12

9845 French IVB

Prerequisite: French III A, III B, III C

9846 French IVC

Continued study of French grammar and vocabulary with an emphasis on oral proficiency will be enhanced by an introduction to French literature. Opportunities for conversations with native French speakers, critical viewings of feature-length French films and excursions to French restaurants will supplement the formal curriculum. This course is culturally based in its format.

9837 Spanish VA

Grade 12

9838 Spanish VB

Prerequisite: Spanish IVA, IVB, IVC

9839 Spanish VC

The fifth year of Spanish study focuses on conversational skills and the development of writing. Students will develop communicative independence through large-scale projects as their skills allow. This course is culturally based in its format.

9847 French VA

Grade 12

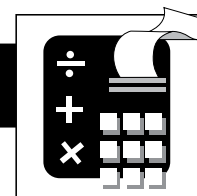
9848 French VB

Prerequisite: French IVA, IVB, IVC

9849 French VC

The fifth year of study provides an extension of balanced skills approach to reading, writing, listening, speaking and cultural awareness in the French language. As a student, you will have the opportunity to apply those skills already learned and expand your capacity. Areas of study may include the French influence around the world, contemporary writings and readings, environmental issues from the French point of view, an overview of the Franco-American connection, and French in the world of work.

MATHEMATICS



In this changing world, those who understand and can do mathematics will have significantly enhanced opportunities and options for shaping their futures. National and state reports from mathematics and educational organizations strongly recommend that all students take four years of mathematics in grades 9-12. Colleges and universities are requiring three years and recommending four years of school mathematics, through Pre-Calculus. Vocational and technical schools require a mathematics background for many of their programs.

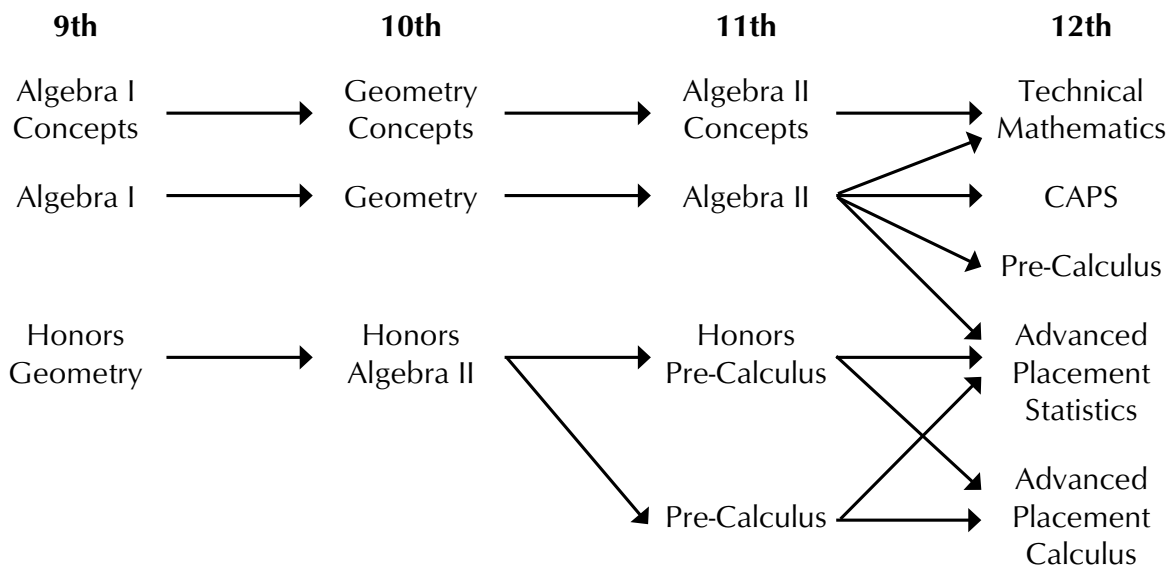
The mathematics curriculum in District 196 addresses the concerns that have been identified in mathematics education. The curriculum provides materials that use current technology, provides real-life applications, integrates with other subjects, and presents material needed by students in the future. Success in any mathematics course requires a solid background from previous coursework, proper study skills, and a commitment to daily work.

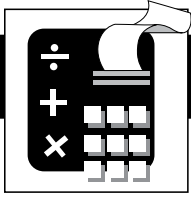
To fulfill graduation requirements, all students are required to earn nine (9) trimester credits. Students must complete courses in Algebra I, Geometry, and Algebra II. Computer programming and computer lab credits do not count toward the mathematics graduation requirement.

Students enrolled in Algebra II Concepts, Algebra II, Technical Mathematics, Pre-Calculus, Honors Pre-Calculus, AP Statistics, AP Calculus, and CAPS are required to have a graphing calculator. SES teachers are familiar with the TI-83 and TI-84 series only.

MATHEMATICS CURRICULUM

The flow charts are the recommended paths for the majority of students. Some students may be enrolling in these courses in other years.





MATHEMATICS

Algebra II Concepts

- 9001 Algebra II Concepts A
- 9002 Algebra II Concepts B
- 9003 Algebra II Concepts C

Grades 11, 12

Prerequisite: Completion of a Geometry course.

This course is designed for students who need a slower pace. Students in this course will continue to learn to describe the world around them with algebraic expressions, equations, graphs, and statistics. Topics include: linear, exponential, quadratic, and trigonometric functions, matrices, probability and statistics. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series. Some colleges and universities may not accept this class in determining admission for students.

Algebra II

- 9004 Algebra II A
- 9005 Algebra II B
- 9006 Algebra II C

Grades 11, 12

Prerequisite: Successful completion of Geometry and Algebra I

Students in this course will continue to learn to describe the world around them with algebraic expressions, equations, graphs, and statistics. Topics include: linear, exponential, quadratic, logarithmic, and trigonometric functions, matrices, probability and statistics. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series.

Pre-Calculus

- 9563 Pre-Calculus A
- 9564 Pre-Calculus B
- 9565 Pre-Calculus C

Grades 11, 12

Prerequisite: Successful completion of Algebra II or Honors Algebra II

The Pre-Calculus course covers the following topics: advanced properties of functions, polar coordinates, complex numbers, vectors, recursion, combinatorics and introduction to the derivative. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series.

Honors Pre-Calculus

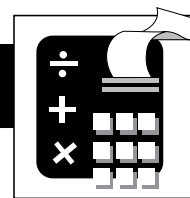
- 9579 Honors Pre-Calculus A
- 9580 Honors Pre-Calculus B
- 9581 Honors Pre-Calculus C

Grades 11, 12

Prerequisite: A's or B's in Honors Algebra II, A's Algebra II or teacher recommendation

The Pre-Calculus course covers the following topics: advanced properties of functions, polar coordinates, complex numbers, vectors, recursion, induction, combinatorics and introduction to the derivative. This course moves a little faster than Pre-Calculus and covers some topics with more depth. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series.

MATHEMATICS



Technical Mathematics

- 9556 Technical Mathematics A
- 9557 Technical Mathematics B
- 9558 Technical Mathematics C

Technical Mathematics will include a review of Algebra and Geometry topics. Additional topics of probability, statistics and trigonometry will be covered. Hands-on laboratory activities, cooperative learning and reading will be components of the course. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 TI-84 series. Some colleges and universities may not accept this class in determining admission for students.

Grade 12

Prerequisite: Completion of Algebra II Concepts, Algebra II or teacher recommendation

Advanced Placement Calculus

- 9573 Advanced Placement: Calculus A
- 9574 Advanced Placement: Calculus B
- 9575 Advanced Placement: Calculus C

In this course, students will study rates of change, along with limits of a function. Formal differentiation and its application to real world problems will be included. Students will study integration to find the area under a curve and its application to real world problems. Calculus will be presented from a graphical, numerical, and symbolic point of view. The goal is for students to obtain a strong conceptual understanding to accommodate diverse applications. A significant focus will be on preparation for the Advance Placement exam. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series.

Grades 11, 12

Prerequisite: Successful completion of Honors Pre-Calculus, Pre-Calculus, or teacher recommendation

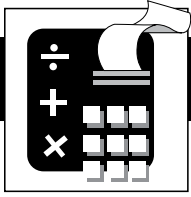
Advanced Placement Statistics

- 9576 Advanced Placement: Statistics A
- 9577 Advanced Placement: Statistics B
- 9578 Advanced Placement: Statistics C

This course will provide in depth coverage of the major concepts and tools for collecting, analyzing, and drawing conclusions from data. Topics include: exploring data, planning a study, anticipating patterns, and statistical inference. A significant focus will be on preparation for the Advance Placement exam. A graphing calculator is required for this course. The SES Mathematics Department strongly recommends the TI-83 or TI-84 series.

Grades 11, 12

Prerequisite: Successful completion of Honors Algebra II, Algebra II, or teacher recommendation



MATHEMATICS

College Algebra, Probability, and Statistics (CAPS)

9533 CAPS A: Probability and Statistics

9534 CAPS B: Probability and Statistics

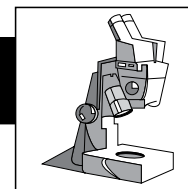
9535 CAPS C: College Algebra with Trig

Grade 12

Prerequisite: Successful completion of Algebra II, teacher recommendation

College Algebra, Probability, and Statistics (CAPS) have been designed to meet the needs of seniors who have a demonstrated an interest in continuing their mathematics study beyond Algebra II, but are not intending to pursue a post-secondary course of study with a math/science focus. The target group of students include those who demonstrate skills an abilities in mathematics that are greater than those needed for Tech Math but may be problematic for success in Pre-Calculus. Topics will include analyzing data, chance and probability, functions and trigonometry.

SCIENCE



Students in the state of Minnesota are required to complete three years of science including Earth Science and Biology, both typically completed during the 9th and 10th grade years. A third year of science can be fulfilled as SES through completion of a full year of ONE of the following options:

- Environmental Science (11th grade)
- Environmental Science (12th grade)
- Physical Science Concepts
- Chemistry/Honors Chemistry
- Physics/Honors Physics

for 11th and 12th grade is part of the thematic studies sequence of courses. The Advanced Placement courses listed below are taken in conjunction with Thematic Studies Environmental Science.

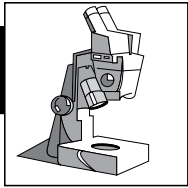
Students who intend to enroll in college after high school should consider three years of science as the minimum science to be taken. School of Environmental Studies science staff recommend that students intending to enroll in college consider taking four years of science, preferably earth science, biology, chemistry and physics.

In addition, electives such as Advanced Placement Biology, Advanced Placement Environmental Science and Accelerated Physics are designed to broaden the background of students who are interested in science or who might be planning on a career in science. Upon completion of these classes, students will be eligible to take the Advanced Placement Tests in biology, chemistry and/or physics.

9431 Advanced Placement Biology A
9432 Advanced Placement Biology B
9433 Advanced Placement Biology C

Grade 11
Prerequisite: strong background
and current or past enrollment in
Chemistry A, B, C.

Students take this course in conjunction with Thematic Studies Environmental Science. AP Biology is designed for students who intend to pursue a science or science related career. Topics covered throughout the year include botany, zoology, cell biology, biochemistry, physiology, taxonomy, anatomy, and ecology. This course will help prepare students for the optional Advanced Placement exam for college credit. This course includes HIV/AIDS curriculum.

**9491 Advanced Placement Environmental Science A Grade 12****9492 Advanced Placement Environmental Science B Prerequisite: strong science background****9493 Advanced Placement Environmental Science C**

Students take this course in conjunction with Thematic Studies Environmental Science. AP Environmental Science is designed for students who intend to pursue a science or science related career. This course will help prepare students for the optional advanced placement exam for college credit.

Interdisciplinary topics include the following major themes:

- Science is a process
- Energy conversions underlie all ecological processes
- The Earth itself is one interconnected system
- Humans alter natural systems
- Environmental problems have a cultural and social context
- Human survival depends on developing practices that will achieve sustainable systems

9441 Chemistry A**Grades 11, 12****Prerequisite: strong background in Algebra**

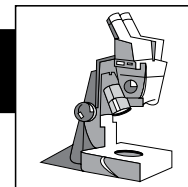
The study of chemistry is important for students planning to attend college. It is a sequential course that investigates matter and the changes that it can undergo. This first trimester focuses on matter, measurement, atomic structure, the periodic table and chemical naming; all of these being foundational to further study in Chemistry B and C.

9442 Chemistry B**Grades 11, 12****Prerequisite: Chemistry A**

In Chemistry B, the understanding of atoms and the ability to make and interpret measurements will be used to focus on chemical bonds, chemical reactions and the quantitative study of these reactions (stoichiometry).

9443 Chemistry C**Grades 11, 12****Prerequisite: Chemistry B**

In Chemistry C, the understanding of elements and compounds and the ability to make and interpret both qualitatively and quantitatively the chemical reactions that are observed in the laboratory setting will be used to understand specific applications of chemistry. The focus will be on phase changes, gas laws, solutions, reaction rate and equilibrium, and acids and bases. An introduction to organic chemistry may also be included.

**9444 Chemistry Foundations A****Grades 11,12**

In this introductory chemistry course students will study the concepts considered foundational to chemistry with minimal reliance on mathematical models. The first trimester focuses on matter, measurement, atomic structure, the periodic table, chemical bonding and chemical naming; all of these being foundational to further study in Chemistry Foundations B and C.

9445 Chemistry Foundations B**Grades 11, 12****Prerequisite: Chemistry Foundations A**

In Chemistry Foundations B, students will apply their understanding of the basic properties of matter learned in Chemistry Foundations A to study chemical reactions and the basic mathematical relationships that exist when chemical changes occur (stoichiometry).

9446 Chemistry Foundations C**Grades 11, 12****Prerequisite: Chemistry Foundations B**

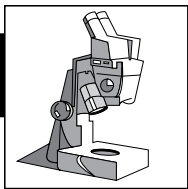
In Chemistry Foundations C, students will use their understanding of matter and chemical change (from Chemistry Foundations A & B) to study specific applications of chemistry including phase changes, gas laws, solutions, reaction rate and equilibrium, as well as acid-base chemistry. An introduction to organic chemistry may also be included. The study of these topics will focus on concepts with minimal reliance on mathematical models.

9451 Honors Chemistry A**Grades 11, 12****Prerequisite: Algebra II Grade "B" or above or instructor's approval**

This course will discuss general chemistry topics in more depth and at an accelerated pace, with a strong emphasis on mathematical understanding. It is recommended for students with a strong interest and ability in both science and mathematics. The first trimester will focus on matter, measurement, atomic structure, the periodic table and chemical naming; all of these being foundational to further study in Honors Chemistry B and C.

9452 Honors Chemistry B**Grades 11, 12****Prerequisite: Honors Chemistry A**

In Honors Chemistry B, the understanding of atoms and the ability to make and interpret measurements will be used to focus on chemical bonds, chemical reactions and the quantitative study of these reactions (stoichiometry). In addition and intensive study of molecular bonding and polarity will be included.

**9453 Honors Chemistry C****Grades 11, 12****Prerequisite: Honors Chemistry B**

In Honors Chemistry C, the understanding of elements and compounds and the ability to make and interpret both qualitatively and quantitatively the chemical reactions that are observed in the laboratory setting will be used to understand specific application of chemistry. The focus will be on phase changes (with emphasis on the thermochemistry), gas laws, solutions, reaction rate and equilibrium, acids and bases and electrochemistry. An introduction to organic chemistry may also be included. These topics will be strongly reinforced with the applications of mathematics.

9471 Physics A**Grades 11, 12****Prerequisite: Two years of Algebra or Instructor permission**

This course includes a study of motion, common forces, momentum, and mechanical energy. As with Physics B and C, emphasis is placed on laboratory work and applying the principles of physics to common situations.

9472 Physics B**Grades 11, 12****Prerequisite: Physics A**

In this course the properties of sound and light are studied. Among the topics covered are wave motion, the workings of the ear and eye, acoustics, optics, and musical instruments.

9473 Physics C**Grades 11, 12****Prerequisite: Physics B**

Areas investigated in this course are electricity, magnetism, nuclear physics, and solar energy. Consideration is also given to the ethical issues arising from advances in nuclear physics, and from the practice of science in general.

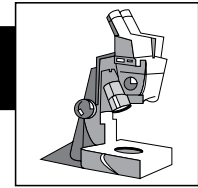
9481 Honors Physics A**Grade 11, 12****Prerequisite: Two years of Algebra or instructor permission**

Accelerated Physics, A, B and C comprise a first year physics sequence, intended for students with strong math background, who desire a more thorough, faster-paced introduction to physics than the Physics A, B and C sequence provides. Topics studied include: one and two dimensional motion, concurrent and parallel forces, momentum and energy. This course will help prepare students for the optional Advanced Placement Exam for college credit.

9482 Honors Physics B**Grades 11, 12****Prerequisite: Accelerated Physics A**

A continuation of Accelerated Physics A topics include: light, sound and heat. This course will help prepare students for the optional Advanced Placement Exam for college credit.

SCIENCE



9483 Honors Physics C

Grades 11, 12

Prerequisite: Accelerated Physics B

A continuation of Accelerated Physics A and B. Topics studied in this course include heat flow, thermodynamics, static and current electricity and magnetism. This course will help prepare students for the optional Advanced Placement Exam for college credit.

9748 Physics Fundamentals A

Grades 11, 12

Prerequisite: None

This introductory physics course stresses concepts and uses a hands on approach. A mathematical approach is applied sparingly and only when the concepts are mastered. In the first trimester of this year-long class topics covered include: the nature of science, acceleration, velocity in one and two dimensions, Newton's laws of motion, momentum and energy.

9749 Physics Fundamentals B

Grades 11, 12

Prerequisite: None

This continuation course still uses every-day materials along with computer programs and electronic laboratory collecting apparatuses. In the second trimester topics include: circular motion, gravity, heat transfer and thermodynamics, waves and sound.

9750 Physics Fundamentals C

Grades 11, 12

Prerequisite: None

A central outcome of all we learn in this class is communicating information. We will stress written or oral communication along with some technical or mathematical ways. The final trimester covers these topics: light, optics, electricity and magnetism.



SOCIAL STUDIES

Social Studies for 11th and 12th grade is part of the thematic studies sequence of courses. The Advanced Placement courses listed below are taken in conjunction with the Thematic Studies Social Studies.

9235 Advanced Placement World History A

Grade 11

9236 Advanced Placement World History B

Prerequisite: strong background in social studies

9237 Advanced Placement World History C

The AP World History course is a year-long course that offers motivated students the opportunity to immerse themselves in the process that, over time, has resulted in the knitting of the world into a tightly integrated whole. AP World History offers an approach that lets students “do history” by guiding them through the steps an historian would take in analyzing historical events and evidence worldwide over a millennium. The course offers a truly balanced global coverage with Africa, the Americas, Asia and Europe represented. Students may choose to take the optional advanced placement exam at their own expense.

9217 Advanced Placement Human Geography A

Grade 12

9218 Advanced Placement Human Geography B

Prerequisite: strong background in social studies

9219 Advanced Placement Human Geography C

The purpose of this course in Human Geography is to introduce students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of the Earth’s surface. Students employ spatial concepts and landscape analysis to analyze human social organization and its environmental consequences. They also learn about the use and the methods and tools of geographic analysis. Students may choose to take the optional advanced placement exam at their own expense.

9231 AP Psychology A

Grades 11, 12

9232 AP Psychology B

9233 AP Psychology C

The course explores fundamental questions about human behavior that lend themselves to scientific study. Both the methods and findings of modern psychology will be studied. Students taking the course will also read and study a college level psychology text and participate in discussions and activities during SES class time. It is a two semester course. Students may choose to take the optional advanced placement exam at their own expense.

MENTOR SEMINAR AND FIELD EXPERIENCES

9739 Mentor Seminar (Fall)

9739 Mentor Seminar (Winter)

9739 Mentor Seminar (Spring)

Grades 11, 12

Prerequisite: Application and Mentor Program Coordinator Approval

Length: One Period, One Trimester Fall, Winter or Spring

Access to professionals is critical for students to determine the career that best suits them. This course is designed to meet that need. With the instructor, you will formulate a personalized college and career plan. You will gain exposure to personality and career strength inventories. College selection and planning strategies are explored. Students design a project based on their field of interest. This course is designed to prepare students for Field Experience where you are placed with an individual career mentor in your field of choice. This course promotes independent learning skills, designed for the college bound student.

9738 Mentor Field Fall)

9740 Mentor Field (Winter)

9741 Mentor Field (Spring)

Grades 11, 12

Prerequisite: Mentor Seminar and

Mentor Program Coordinator approval

Length: One Period, One Trimester Fall, Winter or Spring

On-site Mentorship with a career professional is a blueprint for high performance. This course is experience based. You go beyond the "traditional" classroom experience into the professional's world and gain exposure to the procedures and equipment associated with your field of choice. In addition to a weekly class session with your instructor and peers, you will be released from school and will work with your career professional to learn first hand what your career is all about. You will select and design an individual project under the guidance of your mentor and instructor. This course targets advanced level learners and requires a high level of student independence and responsibility. Students must provide their own transportation to their mentor site. *Prerequisite – Mentor Seminar and instructor approval.

HOME HIGH SCHOOL ELECTIVES

AVHS
EHS
EVHS
RHS

Students may elect to go back to their home high school for one or two periods of instruction. Classes taken at the home high school are classes that are not offered at SES, for example, band, choir, Russian, etc.

CAREER DEVELOPMENT CLASSES

Registration for all Career Development classes (including the two offered at SES - Animal Care and Music Recording & Performance) are done at your home high school either online or by completing your home high school registration card. Class descriptions are in the Career Development brochure.

ADMINISTRATION

Jane K. Berenz, Superintendent

Dan Bodette, Principal

SCHOOL BOARD

Joel Albright

Art Coulson

Rob Duchscher

Gary Huusko

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