

**Office of Curriculum, Instruction and Assessment
Board of Education Curriculum Committee Meeting
Thursday, March 31, 2016**

Members Present: Mr. Larry Greenstein, Ms. Nora Johnson, Ms. Christina Nadolne

Guests: Dr. Kathleen Mooney, Ms. Elizabeth Weisburd, Mr. Ira Pernick, Dr. Brad Fitzgerald, Mr. Hank Hardy

Community Members: George Borda, James Ansel, Jennifer Mannion, Lynn Steinberg, Annie Thornton, Adrienne Saur

Minutes

Meeting was called to order at 8:38 a.m. by Curriculum Committee Chairperson, Larry Greenstein. The minutes from the February 12, 2016, minutes were approved and will be posted.

Mr. Greenstein mentioned that Dr. Westervelt is unable to attend due to a personal matter. Dr. Mooney explained that one of the goals of the BOE curriculum committee was to review the current technology education program at Schreiber and consider expansion to meet the needs of all our students. Mr. Pernick, Dr. Fitzgerald and Mr. Hardy have been invited to this meeting to present on the technology program at Schreiber.

Presentation

Mr. Pernick opened the presentation explaining that the technology department at Schreiber exists from a combination of several departments, art and technology, with more expansion in the future.

Technology Electives

- Three classifications
 - Communications
 - Transportation
 - Engineering

Communications

- Design and Drawing for Production—mostly 9th graders interested in architecture and will satisfy the one year arts requirement from New York State.
- Architectural Drawing I—Grades 10-12. Design and Drawing for Production is a prerequisite. Emphasis on basic principles of building construction and house planning.
- Architectural Drawing II—Grades 11-12. In depth study of principles and techniques, detailed drawings and building and design methods.
- Architectural Drawing III Honors—Grade 12—In-depth instruction in CAD design, engineering, materials, construction methods, etc. College credit may be earned through SUNY Farmingdale.
- 3D Design and Printing—Grades 10-12. This is a new course, and a very popular course, with support from the ed. Foundation. Other department areas have found a use for the 3D Printer such as math research. The high school is currently trying to obtain additional 3D printers from a grant that Mr. Ryan Meloni has applied for. The concept of open access to 3D printing is a new idea.

Photography I, II, III

- Students are taught how to use a camera in photo I and develop black and white film and how to process black and white prints. Very popular course taught by the art teachers, grades 10-12. Photo II teaches students photographic lighting techniques, advance camera handling, and specialized darkroom techniques. Photo III is an independent study class whereby the student develops their curriculum with the teacher addressing the special interest of the student.

Digital Photography I, II and III

- Grades 10-12 students using computer skills. Digital I consist of both a theoretical and practical overview of traditional and digital photography. Digital II is an in depth study of digital photography building on basic concepts already learned. Students hone and perfect their skills with technology hardware and software. Digital III is an independent study class whereby the student develops their curriculum with the teacher addressing the special interest of the student.

Digital Video Production I, II, & III

- Grades 10-12. Taught by an art teacher using technology. Hands on course that will provide an opportunity for student to learn the technical and creative aspects of video editing and TV production. Students also learn in class about the ethical impact of video. As the world moves in new directions, so must these courses.

Film and Television Production

- Grades 10-12. Students are introduced to the latest digital technology, processes, and techniques used professionally in the field of television production. We had Hofstra University partner with us, HBO consulted and the ed. Foundation helped with the development of the studio. It is a very impressive industry standard control room including three industry standard cameras, and green screen. Students started an after school club which became very popular. One student is currently working on a three-five episode sitcom.

Radio I and II --WDOT—The Sound of Schreiber

- Grades 10-12. Students produce their own radio shows. Students want their thoughts and ideas to be heard and this is another opportunity to express themselves.

Dr. Brad Fitzgerald presented on the following:

Transportation

Auto Technology I

- Grades 10-12. Students explore theory, maintenance and servicing. Very popular course with the male population, however, there are a few females. Many students wish to take this course but are unable to because of scheduling conflicts. Students bring in their own cars which are needed to gain hands on experience. Mr. Miller arranges for them to bring in their car since students are not allowed to bring their cars on campus. This class is steeped in safety, i.e. using gloves and goggles. The class is mixed academically. There might be some students who do not speak English while another student is an INTEL research student. The smartboard is also used in the class as the electronic manual for the car is displayed and students can interact with the manual. This is “modern car maintenance”.
- Auto Technology II & III—Grades 11-12. Students will further explore automotive systems, maintenance and servicing. This program is a career prep program since most students at these level courses are more dedicated to go into a career in auto technology. However, some of the students at this level course will choose to take the mechanical engineering path during college. Auto technology III has a research project. Also, many 12th graders will do their senior experience in the auto class. BOCES has a more advanced shop but to send students there is very expensive.

Class sizes for the auto technology courses need to be smaller in numbers. There is only one classroom, expensive and space issues, and one teacher and for safety reasons there needs to be a smaller number of students. Not enough staff to create more sections that would be needed.

Schreiber's automotive program last year placed 2nd in a New York State competition, which included vocational schools. To stay current with the industry standards will be challenging. Just like textbooks, the automotive shop equipment gets outdated. The larger pieces of equipment need upgrades which are very costly. The newer cars of today have brake assistance which causes concerns as to what happens when all cars have such technology that can't be supported by the current equipment we have in the auto shop.

Proposed Course

- Automotive Engineering with a possible Honor's credit—Grade 12.
 - Implement an honor's component into the transportation section of courses
 - Allow the district to enroll students who would otherwise be sent to regional BOCES centers, as this class would allow for focused learning not possible otherwise. Allow seniors to pursue transportation technology as an avenue to their senior experience.

Mr. Hank Hardy presented on the following:

Engineering

- Principles of Engineering—Grades 11-12. May be taken as a third unit of math or science to meet graduation requirement. Hands on application of Math, Science and Technology. Develop skills in design, problem solving, modeling, prototyping and team development skills.
- Introduction to Engineering Science Honors—Grades 11-12. Develop the application of engineering principles in response to social, industrial and environmental problems. College credits can be earned from SUNY Stony Brook.
- Robotics I & II—Grades 10-12. Includes basic robotic elements leading to building a working machine to accomplish a task. Students design, program and operate a machine. Students can earn college credits from SUNY Farmingdale.
- Introduction to Woodworking—Grades 10-12. Students explore fundamentals of woodworking, structural systems, home maintenance and consumer awareness. Hands on approach.

All of the technology education courses are industry based—students are well prepared for jobs.

Schreiber High School Technology Education Accolades

SUNY Oswego Technology Education Fall Conference—multiple presentations in the future of transportation and automotive education

NYS Technology Education Conference--Engineering Science/Robotics

Architecture—portfolios developed to earn scholarships at several colleges including Pratt, Cooper Union, Penn State and Northeastern University.

VEX Robotics Competition: Excellence Award

First Robotics SBPLI Long Island Regional Competition: Quality Award, Finalist (Atlanta), Rookie All Star Award, Highest Rookie Seed Award

The Weber Robotics is doing well--good start before entering Schreiber High School.

Port Washington Education Foundation grants play an important role in these technology areas of the curriculum.

Additional possible future courses: Video Gaming Design; Computer Repair; Programmable Logic Controls; CISCO/Networking; AutoCad.

Survey of local school districts offering onsite automotive courses:

40 districts surveyed: 31 responded

24 in Nassau County (8 said yes); 7 in Suffolk County (5 said yes)

Survey results revealed that onsite auto technology is a rarity.

Comments/Concerns/Questions

- Classes in coding? Not under these technology umbrella of classes. It is under Computer Science in the math department.
- Perhaps large corporations could help us with funding to stay current.
- “Girls Who Code” is a national organization to be looked into? Already discussions at SHS for a “Code Club” to be inclusive for all.

Meeting adjourned at 10:16 a.m.

Next meeting: April 21, 2016