AGRICULTURE

AG SCIENCE

COURSE: Ag Science I
(see Science for description)

COURSE: Ag Science II (Livestock and Crop Production)
(see Science for description)

COURSE: Ag Science III (Advanced Animal Science)
(see Science for description)

COURSE: Biology I – Ag
(see Science for description)

COURSE: Advanced Plant Science
Grades eligible: 11 – 12
Prerequisite: Ag Science I and Ag Science II
Course Number: 6527
Course Description: *A course that includes soil science, irrigation practices, water, and pest management. Basic Botany and plant physiology, the environment, crop production, cultivation practices, and employment opportunities in Crop Science are studies with a "hands-on" approach.*
.. may be used for an elective for CSU

COURSE: Animal Care & Veterinary Aide
Grades eligible: 11 – 12
Prerequisite: Completion of Ag Science II and/or Biology I with a grade of "C" or better
Course Number: 6526
Course Description: *A comprehensive lab course which covers a broad range of topics including small animal care, safety, animal rights, nutrition, diseases and ailments. The course is designed to provide students with entry level skills to work in an animal care civility such as kennels, stables, and zoos. Students can also work as a veterinary aide working in animal clinics, veterinary hospitals, and other animal-care* facilities.

COURSE: Veterinary Science
Grades eligible: 10 -12
Prerequisite: A grade of "C" or better in Biology I or Ag Science I
Course Number: 6534
Course Description: *This is a veterinary science course to teach high school students the entry level skills necessary to become a veterinary tech for both small and large animals.*
…may be used for CSU or UC entrance

COURSE: Food Science & Processing
Grades eligible: 11 – 12
Prerequisite: biology I or Ag Science I & II; or other equaled Ag class
Course Number: 6532
Course Description: *This course studies the science and technology of getting food from the field to the grocery store or restaurant. Food preservation science, safety, processing technologies and careers are taught in an interesting hands-on class.*
.. may be used as an elective for CSU

AG BUSINESS

COURSE: Ag Business
Grades eligible: 11 - 12
Prerequisite: Ag Science, Ag Biology, Ag Engineering/Welding
Course Number: 6520
Course Description: *Students will understand and demonstrate the relationship between agriculture production management and marketing. Major emphasis is placed on the business and entrepreneur aspects of agriculture. Leadership, student supervised occupational experience projects are offered through the FFA program.*

COURSE: Ag Leadership
Grades eligible: 10 - 12
Prerequisite: Any first-year Ag class and teacher approval
Course Number: 6514
Course Description: *A course that includes: Public speaking, report writing, student supervised occupational experience project, recordkeeping and accounting, oral presentations, and various FFA leadership activities.*

COURSE: Ag Economics
(see Social Science for description)

AG MECHANICS

COURSE: Ag Mech I
Grades eligible: 9 – 10
Prerequisite: None
Course Number: 6540
Course Description: *This is a beginning Ag Mechanics class that includes one semester of arc welding and one semester of small engine repair, tractor maintenance and operation, woodworking and rope-knot tying. This course leads to welding fabrication or small engines/diesel engines.*

COURSE: Ag Mech II
Grades eligible: 10 – 12
Prerequisite: Ag Engineering/Welding
Course Number: 6541
Course Description: *This course is designed for students to master arc welding in all positions with various electrodes. In addition, students will become familiar with the MIG welding process and be able to successfully complete various joints and positions using the MIG welding process. The class will conclude with the completion of small welding projects. This course will also include the use of computers for designs using the CAD program.*

COURSE: ROP Ag Mech III
(see Visual Arts for description)

COURSE: Ag Mech IV (1 – 2 hour class)
Grades eligible: 11 – 12
Prerequisite: Ag Mechanics I - III
Course Number: 8378
Course Description: *This course is available in a one- hour class and a two- hour class block. In the one-hour class, students will work on group projects. In the two-hour class of agricultural construction, each student will build individual projects in class and exhibit them at local fairs.*
. the two-hour class meets the fine arts requirement for MSHS

COURSE: Diesel Engines
Grades eligible: 10 – 12
Prerequisite: Ag Engineering / Welding
Course Number: 6530
Course Description: *This is a beginning diesel engines class. It covers basic engine theory, and maintenance operation of compact diesels. Different types of injectors and injector pumps are taught. Safety is stressed, tool identification, engine tear-down, and careers are covered.*

COURSE: ROP Small Engines (2 hour class on even years)
Grades eligible: 11 – 12
Prerequisite: Ag Engineering / Welding / Diesel Technology
Course Number: 8320
Course Description: *This is an advanced course covering small engines theory, operation, maintenance and repair. Complete engine overhaul of "L" Head and overhead engines. Community classroom sites are also used to advance skills.*

COURSE: ROP Diesel Engines (2 hour class on odd years)
Grades eligible: 11 – 12
Prerequisite: Ag Engineering / Welding / Diesel Technology
Course Number: 8399
Course Description: *This course covers advance diesel engine theory, maintenance operation and repair. Larger engines that include tractor and truck engines are included. The class also includes complete engine overhaul. Community classroom instruction is utilized to advance skills.*

COURSE: Ag Engineering & Design I
Grades eligible: 9-12
Prerequisite: Algebra I or concurrently enrolled in Algebra I
Course Number: 6545
Course Description: This course is for students who are interested in careers in architectural and/or mechanical engineering, construction, and agriculture. This course will teach students the use of mechanical drafting tools and the computer to draw technical industrial drawings. During the last two months of the year the students enter the design phase of the course. They work in teams to design a small vehicle that they will build in the Ag Engineering & Design II course the following year.

COURSE: Ag Engineering & Design II
Grade eligible: 10-12
Prerequisite: Ag Engr. and Design I; Geometry or concurrently enrolled in Geometry
Course Number: 6536
Course Description: This is a creative course for students who are self-disciplined and have strong study skills, particularly in math. There are four aspects to this course: 1) Advanced CADD, 3-D modeling, 2) The physics of engineering: basic machines, energy & forces, and Electrical, pneumatic, and hydraulic systems, 3) Learning safe shop practices, and 4) Constructing a class-designed vehicle project.

HORTICULTURE

COURSE: Horticulture I
Grades eligible: 10 – 12
Prerequisite: Ag Science I or Ag Biology
Course Number: 6505
Course Description: *This introductory course will introduce students to horticulture in a practical way that will transition students to the next level. This class will cover an array of areas, including: plant nutrition, basic botany, occupations, irrigation, landscaping, gardening, plants production, disease control, and floral area. An overview of the Horticulture industry is included.*

COURSE: Horticulture II
(see Science for description)

COURSE: Nursery Management (2 hours)
Grades eligible: 11 – 12
Prerequisite: Horticulture
Course Number: 6525
Course Description: *This is a two-hour practical lab that teaches landscaping practicing through planting, growing and the maintenance of plants, shrubs, trees, and turf. The students will also learn the principles and practices of a commercial nursery. This course is an excellent "hands-on" approach on the practical class that can easily lead into part-time or full-time employment in the commercial nursery operation. Leadership student supervised occupational experience projects that are offered through the FFA organization.*

COURSE: Floral Design
(see Visual Arts for description)

COURSE: Advanced Floral Design
(see Visual Arts for description)

COURSE: Environmental Science I (Forest Management and Ecology)
(see Science for description)

COURSE: Environmental Science II (Wildlife Management and Outdoor Recreation)
(see Science for description)