



# STEM MAGNET HIGH SCHOOL PROGRAM OF STUDY AND PROGRAM REQUIREMENTS

## FOR SRHS STUDENTS ENTERING GRADE 9 IN THE 2019-2020 SCHOOL YEAR:

### Course Credit BMAH Program Graduation Requirements:

- English – 4.0 credits-Honors or AP Level Grades 9-12
- Social Studies – 4.0 credits -Honors US Government Hybrid, AP Human Geography, Honors or AP World History, Honors or US History
- Science – 4.5 credits-Systems Science A & B (Credits for Honors STEM Physics, Honors STEM Biology, Honors STEM Chemistry) an AP Science, Science Research III
- Math – 4.0 credits- Honors or AP Level Grades 9-12 increasing in this progression through the Calculus level
- Physical Education/Health – Fitness for Life, PE Elective – 1.0 credit
- Health – 0.5 credits
- Technology Education – 1.0 credits-STEM Principles of Engineering
- Foreign Language – at least 3.0 credits in the same language, 4.0 credits recommended
- AP Computer Science Principles- 1.0 credit
- Art – 1.0 credit- Foundations of Art & Studio1: 2D Art
- Elective Credits
  - Problem/Project-Based Learning Explorations I & II/Community Challenge (STEM Policy, Science Research III, Community Challenge) Course Sequence - 2.0 credits
- STEM Pathway of Study -Pathway I, Pathway II, Capstone – 3.0 credits
- Business Education – 1.0 Credit -STEM/BMAH Internship

### ADDITIONAL STEM PROGRAM GRADUATION REQUIREMENTS:

- Mandatory STEM Summer Programs (must attend the entire time) – Entering Grade 9: STEP Up to STEM/BMAH – 1 week, Entering Grade 10: STEM Summer Summit - 1 week, Entering Grade 11: STEM Summer of Service – 24 hours
- Mandatory STEM Summer Reading Assignments – Each summer entering Grades 9 - 12
- Participation in TWO STEM -related competitions (App Design Challenge & others)
- Students and Families must attend approximately 4-6 STEM Family Night Events OR Saturday Weekend Events per school year. These events occur in the evenings and on weekends. Dates will be communicated in advance.
- Mandatory Participation and Completion of the off- campus STEM Job Shadowing Experiences Program (Grade 9 – 6 required, Grade 10 – 4 required, Grade 11 – 2 required, Grade 12 – 1 required)
- Mandatory Completion of a STEM Internship (Summer after Grade 11 or Fall of Grade 12)
- Students are expected to carry a FULL COURSE SCHEDULE AT THE STEM/BMAH SCHOOL, IN THE STEM PROGRAM, for all four years of high school. If students have fulfilled all STEM and HS graduation requirements:
  - They have the opportunity to complete their internship during the fall semester of Grade 12 during the school day if scheduling allows AND/OR Students also have the opportunity to attend an institution of higher education to take classes not offered at the high school
- Students must maintain a 2.8 GPA and good citizenship to remain in the STEM Program. Students will be placed on academic probation and/or good citizen contracts if they are not maintaining these standards and then be exited from the program. Students MUST complete all academic and additional requirements noted above to remain in the STEM Program. Students will be exited from the program at the conclusion of any academic year for non-compliance with program requirements. Students may be exited immediately for serious violations including those resulting in suspension and/or charges being filed with the criminal justice system.
- Students exiting the magnet program MUST return to their home school. They are not eligible to apply for an out of area transfer to remain at the STEM/BMAH school.
- Students must fully participate in the STEM/BMAH Success Mentorship Program. Juniors & Seniors will serve as mentors and Freshman & Sophomores will serve as mentees.

### **AFTER-HOURS COURSE OFFERINGS:**

Walking Wellness, Fitness for Life, Health

**NOTE:** In the academic schedules that follow, [BMAH] denotes a course for which students are cohorted.

# GRADE 9

## Summer I

*STEM Summer Program I experience for Rising 9<sup>th</sup> Graders Accepted into STEM Magnet High School – 1 Week & Summer I Reading Assignment*

## 9<sup>th</sup> Grade

### Fall Semester

| PD   | A Day  | B Day  |
|------|--|--|
| 1-A1 | Problem/Project Based Learning Explorations I [STEM] | Principles of Engineering [STEM]                     |
| 1-A2 | H US Government Hybrid (w/online component) [STEM]   |  |
| 2    | World Language I                                     | Honors or AP Math I                                  |
| 3    | Honors System Science A [STEM]                       | AP Computer Science Principles [STEM]                |
| 4    | Honors English 9 [STEM]                              | Elective Period (Band, Orchestra, Chorus, AVID, Art) |

## 9<sup>th</sup> Grade

### Spring Semester

| PD   | A Day  | B Day  |
|------|--|--|
| 1-A1 | Problem/Project Based Learning Explorations I [STEM] | Principles of Engineering [STEM]                     |
| 1-A2 | H US Government Hybrid (w/online component) [STEM]   |  |
| 2    | World Language I                                     | Honors or AP Math I                                  |
| 3    | Honors System Science A [STEM]                       | AP Computer Science Principles [STEM]                |
| 4    | Honors English 9                                     | Elective Period (Band, Orchestra, Chorus, AVID, Art) |

# GRADE 10

## Summer II

*Summer Program II experience for Rising 10<sup>th</sup> Graders – 1 Week & Summer II Reading Assignment*

## 10<sup>th</sup> Grade

### Fall Semester

| PD   | A Day   | B Day   |
|------|---|---|
| 1-A1 | Problem/Project Based Learning Explorations II [STEM] | AP Human Geography [STEM]                             |
| 1-A2 | AP Statistics <i>or</i> Health [STEM]                 |   |
| 2    | World Language II                                     | Honors or AP Math II                                  |
| 3    | Honors System Science B [STEM]                        | STEM Pathway Class I [STEM]                           |
| 4    | Honors English 10 [STEM]                              | Elective Period (Band, Orchestra, Chorus, AVID, P.E.) |

## 10<sup>th</sup> Grade

### Spring Semester

| PD   | A Day   | B Day   |
|------|---|---|
| 1-A1 | Problem/Project Based Learning Explorations II [STEM] | AP Human Geography [STEM]                             |
| 1-A2 | AP Statistics <i>or</i> Health [STEM]                 |   |
| 2    | World Language II                                     | Honors or AP Math II                                  |
| 3    | Honors System Science B [STEM]                        | STEM Pathway Class I [STEM]                           |
| 4    | Honors English 10 [STEM]                              | Elective Period (Band, Orchestra, Chorus, AVID, P.E.) |

# GRADE 11

## Summer III

*Summer Program III experience for Rising 11<sup>th</sup> Graders – 24 Hours of Service & Summer III Reading Assignment*

### 11<sup>th</sup> Grade

#### Fall Semester

| PD | A Day                             | B Day  |
|----|-----------------------------------|--|
| 1  | Honors or AP World History [STEM] | Honors or AP Math III  |
| 2  | World Language III or Elective    | STEM Pathway Class II [STEM]   |
| 3  | AP Science                        | <b>BLOCK SCHEDULED:</b> [STEM] <ul style="list-style-type: none"> <li>Problem/Project Based Learning Explorations III: Community Challenge [STEM], STEM Policy [STEM], STEM Science Research 3 [STEM]</li> </ul> |
| 4  | Honors or AP English 11           |  |

### 11<sup>th</sup> Grade

#### Spring Semester

| PD | A Day                             | B Day   |
|----|-----------------------------------|---|
| 1  | Honors or AP World History [STEM] | Honors or AP Math III   |
| 2  | World Language III or Elective    | STEM Pathway Class II [STEM]  |
| 3  | AP Science                        | Elective Period (Band, Orchestra, Chorus AVID, etc.)                                    |
| 4  | Honors or AP English 11           | STEM Elective Period OR Additional STEM Pathway Class, additional Science or Math, etc. |

# GRADE 12

## Summer IV

*STEM Internship & Summer IV Reading Assignment*

### 12<sup>th</sup> Grade

#### Fall Semester

| PD | A Day                                 | B Day  |
|----|---------------------------------------|--|
| 1  | Honors or AP US History               | Honors or AP Math IV (must take Calculus by end of Grade 12)                                 |
| 2  | World Language IV or Elective         | STEM Capstone [STEM]   |
| 3  | AP Science or Honors Science Elective | Elective Period (Band, Orchestra, Chorus, AVID, etc.)  |
| 4  | AP English Literature                 | STEM Pathway Class [STEM] OR Elective Period (Higher Ed, additional STEM Pathway Class etc.) |

### 12<sup>th</sup> Grade

#### Spring Semester

| PD | A Day                                 | B Day  |
|----|---------------------------------------|--|
| 1  | Honors or AP US History               | Honors or AP Math IV (must take Calculus by end of Grade 12)                                 |
| 2  | World Language IV or Elective         | STEM Capstone [STEM]   |
| 3  | AP Science or Honors Science Elective | Elective Period (Band, Orchestra, Chorus, AVID, etc.)  |
| 4  | AP English Literature                 | STEM Pathway Class [STEM] OR Elective Period (Higher Ed, additional STEM Pathway Class etc.) |