**SHIPPENSBURG UNIVERSITY
DEPARTMENT OF TEACHER EDUCATION**PROGRAM PLANNING SHEETElementary/Middle Level Option #2- **Math and Science**

**TOTAL CREDITS: 123 – 125**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Advisor:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

A student selecting this option will be certified to teach mathematics and science in level grades 4-8 and all subjects in grades 4 and 5.

**1. General Education: (48-49 Credits)**

**Foundations: 15 – 16 credits CR GR**

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| UNIV 101 | **3** |  |
| ENG 114 Writing Intensive Seminar | **3** |  |
| HCS 100 Introduction to Human Communication | **3** |  |
| HIS 105 Historical Foundation of Global Cultures | **3** |  |
| MAT 117 Applied Statistics (3) *(Math placement levels 2-4)* Prerequisite: Math placement level 2 or MAT 050 with minimum grade C **OR** MAT 217 Statistics I (4) *(Math placement levels 5-6)* Prerequisite: Math placement level 5 | **3-4** |  |

**Interconnections: 9 Credits CR SM**

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| *Required Diversity Course and select at least 1 Global Perspectives Course* | **9 Total** |
| *Required Diversity Course* | **3** |  |
| PSY 101 General Psychology  | **3** |  |
| *Global Perspectives Course Options*  | **3** |  |
| ANT 105 Great Discoveries in Archaeology **OR**ECO 101 Principles of Macroeconomics **OR** GEO 101 World Geography **OR** HIS 106 Thinking Historically in a Global Age **OR** PLS 141 World Politics |  |  |
| *Foreign Language Course Options* |
| SPN 101 Beginning Spanish I Credits **OR**SPN 102 Beginning Spanish II Credits **OR**SPN 103 Intermediate Spanish Credits **OR**SPN 202 Intermediate Conversation Credits **OR**SPN 330 Spanish for the Professions Credits |  |  |

**Natural World and Technologies: 11 credits**

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| --- |
| All Required |
| PHY 121 Physics I (3) AND PHY 123 Physics I Lab (1) | 4 |  |
| ESS 111 Intro to Atmosphere  | 3 |  |
| BIO 162 Principles of Biology: Organismal Diversity  | 4 |  |

**Citizenship and Responsibility: 7 Credits CR SM**

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| *Select 1 Citizenship or Ethical Reasoning Course* | **3 Total** |
| *Citizenship Course Options*  |
| ESS 108 Introduction to Sustainability **OR** HIS 201 Early History of the United States **OR** PLS 100 United States Government and Politics |  |  |
| *Ethical Reasoning Course* |
| PHL 105 Ethical Theories and Problems |  |  |  |
| *Required Critical Reasoning Course* | **4** |  |
| **MAT 225 Discrete Math (R)** *(Math placement levels 4-6)* Prerequisite: MAT 140A or math placement level 4 or MAT 140B or MAT 175 or MAT 211 or MAT 181  |  |  |

**Creativity and Expressions: 6 Credits** **CR SM**

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| *Select 1 Literature & 1 Art Course*  | **6 Total** |
| *Literature Course Options*  |
| ENG 248 Introduction to Culturally Diverse Literature of the U.S **OR** ENG 250 Introduction to Literature |  |  |
| *Art Course Options* |
| ART 101 Art Appreciation **OR** ART 231 Art History I **OR** ART 232 Art History II **OR** ART 233 Art History III **OR**ART 339 History of American Art **OR** IAP 111 Introduction to Interdisciplinary Arts **OR** MUS 121 Introduction to Music **OR** MUS 129 American Popular Music **OR** MUS 227 Opera & Music Theatre **OR** MUS 261 World Music |  |  |

**2. Professional Core (39 credits):**

**A. Middle Level Cognitive Development CR SM**

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| TCH 206 Social Foundations of Middle Level Education | **3** |  |

 **B. Early Adolescent and Adolescent Learning CR SM**

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| --- | --- | --- |
| TCH 261 Adolescent Development and Language Theory | **3** |  |

**C. Assessments and Interventions CR SM**

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| EEC 483 Assessing Children with Exceptionalities for Curricular Decision Making | **3** |  |

**D. Adaptations and Accommodations for Diverse Learners**

 **CR SM**

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| --- | --- | --- |
| EEC 273 Introduction to Exceptionalities: Understanding Diverse Learners | **3** |  |
| EEC 423 Effective Instructional Strategies for Students with Exceptionalities | **3** |  |

**E. Middle Level Teaching Courses CR SM**

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| RDG 232 Reading in the Elementary School | **3** |  |
| RDG 329 Reading in the Content Area | **3** |  |
| RDG 405 Teaching Writing in 4-8 Classrooms | **3** |  |
| TCH 251 Elements of Middle Level Instruction | **3** |  |
| TCH 342 Teaching Middle Level Mathematics | **3** |  |
| TCH 345 Assessment and Evaluation | **3** |  |
| TCH 366 Teaching Science at the Middle Level | **3** |  |

**F. English Language Learners (ELL) CR SM**

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| RDG 413 Teaching Reading to English Language Learners | **3** |  |

**3. Concentration Area: Mathematics (12-13 credits):**

A. Required Course (3 credits) **CR SM**

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| --- | --- | --- |
| MAT 105 Mathematics for Liberal Arts *(Math placement levels 2-6)* Prerequisite: Math placement level 2 or MAT 050 with minimum grade C | **3** |  |
| MAT 181 Applied Calculus (3) *(Math placement levels 5-6)* Prerequisite: MAT 140A with minimum grade C or MAT 140B with minimum grade C **OR** MAT 175 with minimum grade C or math placement MAT 211 Calculus I (4) *(Math placement level 6)* Prerequisite: MAT 175 with minimum grade C or math placement level 6 | **3-4** |  |
| MAT 333 Geometry (3) Prerequisite: MAT 225 **OR** MAT 400 History of Math (3) Prerequisite: Junior status **OR** MAT 317 Statistics II (3) Prerequisite: MAT 217 | **3** |  |

B. Required **CR SM**

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| MAT 205 Concepts of Middle Level Math | **3** |  |

**4. Concentration Area: Science (9 credits):**

A. Take all (7 credits)  **CR SM**

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| CHM 105 An Observational Approach | **3** |  |
| ESS 110 Intro to Georology | **3** |  |

B. Select one (3 credits) **CR SM**

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| BIO 100 Basic BiologyBIO 142 Intro to EcologyBIO 145 Environmental BiologyESS 210 Physical Geography  | **3** |  |

**5. Student Teaching (15 credits): CR SM**

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| EDU 409 Seminar in Middle Level Student Teaching | **3** |  |
| EDU 495 Student Teaching Experience | **12** |  |

**KEY:**

**CR** = Credits the course is worth

**SM** = Semester taken

***Note on Prerequisites***

***Calculus:*** *Students must meet one of the following prerequisites: C or better in MAT175 or math placement level 6. However, a prerequisite override could be granted based on a recommendation to the math department from the student’s advisor.*

Students electing certain minors can be required to complete more credits to complete both the elementary program and the requirements of the selected minor. **ALL** students are required to complete at least **120 credit hours** for graduation.