

School District of Springfield Township

Springfield Township High School Course Overview

Course Name: Senior Thesis

Grade level: 12

Course Description

Students create an independent project based upon future career plans, educational goals, or a specific new area of interest. Students, in coordination with the instructor, a mentor, and peers, develop a detailed organizational plan that includes their outline for research, project development, hands-on experience, and a culminating presentation. Students are encouraged to be creative, to challenge themselves, and to use all of the skills they have learned throughout their educational journey at Springfield Township High School. This course values individual freedom and flexibility while maintaining high standards for achievement.

Unit Titles

Units run concurrently throughout the semester.

Unit 1: The Self-directed Research Process

Unit 2: Using Technology Effectively And With Responsibility

Unit 3: Effective Presentation

Essential Questions

1. How does one apply the research skills acquired in high school to post high school research?
2. How does one synthesize, analyze, and communicate new knowledge?
3. How does one use technology effectively for research and presentation?
4. How does one behave and contribute ethically as a digital citizen?

Big Ideas/Enduring Understandings

Unit 1: The self-directed research process

- Self-directed learners explore ideas, use a variety of sources, and creatively inquire about their world.
- Effective researchers are problem-solvers, critically assessing their own products and those of others, researching related topics and developing expertise, and using creative thinking to develop potential solutions to identified problems.
- Effective researchers know how to find, evaluate, and use valid and reliable sources relevant to their research.

Unit 2: Responsible Use of technology

- Technology is a tool for networking, sharing, narrating, and creative self-expression.
- Digital identity requires planning, collaborating, and reflecting.
- Digital citizenship: rights and responsibilities are associated with the use of technology and information.

Unit 3: Effective Presentation

- Effective presentation requires extensive preparation, clear purpose, logical organization, and knowledge of audience.
- Communication is an active process.
- Effective communicators use a variety of modes of expression to express and receive meaning.
- Effective presentation incorporates appropriate citation, credit, and adherence to copyright law.

Key Competencies/Skills/Procedures

Unit 1: The Self-directed Research Process

- Identify self-selected research topic
- Formulate essential questions to guide research process
- Locate a variety of media and written resources and evaluate for relevance, reliability, and validity
- Create annotated bibliography, building knowledge foundation
- Examine author bias in resources
- Interpret, analyze, and synthesize research material focusing on self-selected topic
- Create an informational research product, demonstrating knowledge of topic
- Apply knowledge to internship/community service/real life experience
- Identify problems or potential problems in internship/community service experience or topic area
- Collaborate with topic expert to refine research and develop solutions to identified problems
- Develop argument for solution and/or change in form of thesis
- Support argument with evidence
- Organize argument logically

Unit 2: Responsible Use of Technology

- Understand and apply the elements of digital citizenship
- Identify relevant web-based resources appropriate for self-selected topic
- Evaluate web-based resources for reliability and validity
- Use technology to communicate research findings
- Use technology for collaboration
- Identify digital storytelling tools best appropriate for publishing informative and thesis-driven research products

Unit 3: Effective Presentation

- Define audience
- Determine purpose
- Organize information logically
- Choose presentation tools to effectively tell story
- Choose images/video/sound to effectively tell story
- Design presentation to support presentation (not distract)
- Adhere to rules/laws of copyright, fair use, and creative commons
- Incorporate credit/citation visually and orally
- Complete extensive preparation process (outline, storyboard, etc.)

Core Vocabulary

Unit 1: The Self-directed research Process

analysis, synthesis, evaluation, summary, paraphrase, bias, reliability, theory, hypothesis, argument/evidence, fact/opinion, citation, plagiarism, integration, organization, focus, revision

Unit 2: Responsible Use of Technology

copyright, copyright-friendly, fair use, creative commons, digital citizenship, digital access, digital commerce, digital communication, digital etiquette, digital literacy, digital law, digital security, publication, storytelling, capture, mashup, montage

Unit 3: Effective Presentation

purpose, organization, audience, gesture, transition, tone, inflection, pace, design/decorate, back-up/soloist

Core Resources

The SDST Graduation Project student handbook

The Graduation Project wiki: <http://sthsgraduationproject.wikispaces.com>

Pennsylvania State Standards and/or Anchor Standards Guiding Course

Pennsylvania State Academic Standards for Reading, Writing, Speaking and Listening:

- 1.1.11.A. Locate various texts, media and traditional resources for assigned and independent projects before reading
- 1.1.11.B. Analyze the structure of informational materials explaining how authors used these to achieve their purpose
- 1.1.11.D. Identify, describe, evaluate and synthesize the essential ideas in text.
- 1.2.11.A. Read and understand essential content of informational texts and documents in all academic areas
- 1.2.11.B. Use and understand a variety of media and evaluate the quality of material produced
- 1.4.11.B. Write complex informational pieces
- 1.4.11.C. Write persuasive pieces
- 1.5.11.A. Write with a sharp, distinct focus
- 1.5.11.B. Write using well-developed content appropriate for the topic
- 1.5.11.C. Write with controlled and/or subtle organization.
- 1.5.11.D. Write with a command of the stylistic aspects of composition
- 1.5.11.E. Revise writing to improve style, word choice, sentence variety and subtlety of meaning after rethinking how questions of purpose, audience and genre have been addressed
- 1.5.11.F. Edit writing using the conventions of language
- 1.5.11.G. Present and/or defend written work for publication when appropriate
- 1.6.11.C. Speak using skills appropriate to formal speech situations
- 1.6.11.E. Participate in small and large group discussions and presentations
- 1.6.11.F. Use media for learning purposes
- 1.8.11.A. Select and refine a topic for research
- 1.8.11.B. Locate information using appropriate sources and strategies
- 1.8.11.C. Organize, summarize and present the main ideas from research

ISTE(International Society for Technology in Education) Performance Indicators for Students:

1. Creativity and Innovation

Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology. Students:

- a. apply existing knowledge to generate new ideas, products, or processes
- b. create original works as a means of personal or group expression

2. Communication and Collaboration

Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others. Students:

- a. interact, collaborate, and publish with peers, experts, or others employing a variety of digital environments and media
- b. communicate information and ideas effectively to multiple audiences using a variety of media and formats
- d. contribute to project teams to produce original works or solve problems

3. Research and Information Fluency

Students apply digital tools to gather, evaluate, and use information. Students:

- a. plan strategies to guide inquiry
- b. locate, organize, analyze, evaluate, synthesize, and ethically use information from a variety of sources and media.
- c. evaluate and select information sources and digital tools based on the appropriateness to specific tasks
- d. process data and report results

4. Critical Thinking, Problem Solving, and Decision Making

Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources. Students:

- a. Identify and define authentic problems and significant questions for investigation
- b. Plan and manage activities to develop a solution or complete a project
- d. Use multiple processes and diverse perspectives to explore alternative solutions

5. Digital Citizenship

Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior. Students:

- a. advocate and practice safe, legal, and responsible use of information and technology
- b. exhibit a positive attitude toward using technology that supports collaboration, learning, and productivity
- c. demonstrate personal responsibility for lifelong learning
- d. exhibit leadership for digital citizenship

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