

# NM

North Montco

Technical Career Center

# **Senior Graduation Project**

This manual applies to all seniors who attend  
North Montco Technical Career Center

Methacton  
North Penn  
Perkiomen Valley  
Souderton  
Wissahickon

**NORTH MONTCO TECHNICAL CAREER CENTER  
SENIOR GRADUATION PROJECT**

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# THE HIGH SCHOOL GRADUATION PROJECT REQUIREMENTS

## **According to Pennsylvania Department of Education Regulations Authority: Pennsylvania School Code – Chapter 4, Section 4.24 – High School Graduation Requirements**

*“Each school District...Shall specific requirements for graduation in the Strategic Plan. Requirements shall include course completion and grades, completion of a culminating project and results of local assessments aligned with the academic standards. The purpose of this project, which may include research, writing, or some other appropriate form of demonstration, is to assure that the student is able to apply, analyze, synthesize, and evaluate information and communicate significant knowledge and understanding.”*

### **Definition of Senior Graduation Project**

A Senior Graduation Project is the organization of the curriculum around student projects, which combines the technical and academic disciplines. Designed to enable students to blend material from very different courses and disciplines, it allows for the greatest individualization. A Senior Graduation Project is a means of demonstrating that students have mastered a variety of competencies through the requirement of writing a report, developing a physical representation of some nature and making an oral presentation. NMTCC’s Senior Graduation Project has an occupational emphasis, requiring the use of technical labs. The project allows students to develop certain capacities not conventionally taught, including the ability to work independently, to solve problems, and to present results and findings to others. Students will be engaged in complex and challenging tasks that allow integration of learning, generation of knowledge, and creation of products.

### **Purpose of a Senior Graduation Project**

The purpose of the Senior Graduation Project is to adopt highly rigorous and measurable standards for academic and vocational performance that reflect global demands and requirements to make a diploma meaningful. The Senior Graduation Project allows the student to demonstrate problem-solving skills, research skills, and independent work. The project also allows the student to demonstrate the ability to see multiple viewpoints, weigh conflict, and support views with credible evidence. The Project also permits the opportunity for ownership of learning, and the development of time management skills.

## **Major Goals**

### **The goals for a Senior Graduation Project center on:**

1. Basic communication skills: reading, writing, listening, and speaking
2. Past and present application of acquired technical skills
3. The ability to locate and interpret information and ideas gained in making decisions and solving problems.

**All technical students from the sending districts must present a Senior Project based on their technical concentration at NMTCC.**

# SENIOR GRADUATION PROJECT

## Contract/Proposal

Student Name \_\_\_\_\_

Student Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

NMTCC Technical Instructor \_\_\_\_\_

Mentor (the employer or person who helped you with the project other than your instructor) \_\_\_\_\_

Sending School \_\_\_\_\_ Homeroom Teacher \_\_\_\_\_

### Project Topic:

Brief Description of Topic: On a separate piece of paper, typed in 12 pt. Times New Roman font and double spaced, describe the following:

- What is your project?
- Why did you choose it?
- What steps will be taken to complete the project??
- What is the expected product or outcome?
- What visual or technical tool will be used in the presentation?
- What resources and/or materials are needed?
- Project Goals: (A minimum of 3 goals relevant to what you hope to accomplish while taking on this project.)
  - 1.
  - 2.
  - 3.

### Signatures:

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

Parent/Guardian Signature \_\_\_\_\_ Date \_\_\_\_\_

Senior Project Coordinator – Sending School \_\_\_\_\_ Date \_\_\_\_\_

NMTCC Technical Instructor \_\_\_\_\_ Date \_\_\_\_\_

Principal – NMTCC \_\_\_\_\_ Date \_\_\_\_\_

# Written Component

The Senior Graduation Project requires an extensive written component to be completed. This component of the Senior Graduation Project is a demonstration of your ability to communicate with others in written form. Since each project is unique, the written component will assume different forms and reflect an individual's growth and personal preference. The original written work reflects in-depth learning, clarity of thought, and proper usage of the writing process. It may include background history on the chosen topic, the process you plan to go through in developing and designing the product, or other important information.

**The following are types of written components (all must include a research component document):**

- A Research Paper**
- A "How To" Paper**
- An Experience Paper**
- A combination of any of the above**

**Your technical instructors will determine when the written component is due and must approve the format you have selected.**

**All written components MUST include the following:** (See reference guide packet included)

## I. Sources

### A. Five Minimum

1. Interviews (no more than two interviews is suggested)
2. Internet Sites (not Wikipedia)
3. Professional Journals
4. Magazines or books

### B. Bibliography

1. Students are required to follow the format provided
2. APA and MLA format will be accepted]

For help with documentation you can go to the following website:

<http://www.citationmachine.net>

## II. Written Component

- A. Three pages minimum
- B. Typed
- C. Double-Spaced
- D. Margins will be 1-inch top/bottom and sides, 12 pt. Times New Roman font

## III. Outline Required

- For help with outline format, you may use [readwritethink.org](http://readwritethink.org). Type “outline” in the search/keyword box. Scroll to find notetaker. Select it and choose Roman Numeral style.

- IV. Rough drafts will be submitted and revised as necessary to meet instructor’s expectations. A rough draft is a first time attempt containing all written components.
- A. Individual conferences with the instructors and/or Instructional Assistants will be conducted periodically throughout the writing process.
  - B. Conferences will be used to guide students through the process to ensure understanding of the instructor’s comments and expectations.
  - C. Each draft should include the following:
    - Title of Project
    - Date Submitted
    - Name
    - Institution- North Montco Technical Career Center and Sending School
    - Technical Program

## Product

The product must be chosen from the technical area. The product can be, but is not limited to a physical item you manufacture. It is not just a report of what you have not and not just visual aids (ex. pamphlet, lesson plan, how to video). The product can also consist of a service program, business simulation, volunteer work experience, or any other product/project approved by the technical instructor. The product should be an extension of the curriculum in the lab areas. The product and written component are reflective of a single topic. The student must demonstrate the ability to evaluate, synthesize, and apply knowledge through research to show completion of product. The product needs to show attention to detail, demonstration of completeness, unity of design, and an imaginative and creative perspective.

**Your technical instructors will specify product deadlines for each marking period.**

**The product will also be evaluated on the following criteria:**

- Fulfills senior level capabilities
- Quality of the product
- Evidence of acquired knowledge and skills of the topic
- Evidence of thought for topic selection
- Visual Aids that reflect the specific topic

## Presentation

The oral presentation integrates information from the written component and product. The presentation should clearly convey that the speaker has a comprehensive grasp of the topic. The oral component must show the student's ability to communicate with others, and the presentation should teach as well as inform. The presentation should also include a description of the process used to develop the product and what was learned through the process. ***Each individual technical instructor will determine the location of the presentation, the date of the presentation, and the audience requested. This will be determined by the third marking period.***

## **The format delivery for the presentation should include:**

- An introduction that effectively engages interest and establishes a sense of purpose and direction
- A body of content that conveys essential and critical ideas that flow logically and smoothly supported with appropriate illustrations or examples;
- A conclusion that effectively summarizes and synthesizes the ideas presented
- Appropriate content for intended audience
- Demonstration of expertise on the topic
- Confident responses to questions posed by the evaluators
- Use of visual aids support and increase the effectiveness of the presentation
- Appropriate attire

## **Senior Project Presentation / Senior Expo**

Individual student exhibits must include the following:

- A tri-fold display
- A product
- A portfolio that includes the written component
- Supporting materials and resources
- The ability to answer questions to verbally defend product/project

All seniors will be required to participate in the Senior Expo, which is an evening activity. Participation includes a display/demonstration of project and the ability to discuss project and answer questions from the public.

## **Reflection and Self Evaluation**

On a separate piece of paper or the reflection questionnaire, reflect on the questions/statements.

1. What knowledge, skills, or abilities have you gained as a result of your project?
2. Identify the best accomplishment of this project.
3. Did you meet the goals of this project?
4. How will you use what you have learned in the future?
5. What part of the project provided you the most difficulty?
6. If you were to complete another project what would you do differently?
7. What recommendations would you make to improve the Graduation Project Process?

**Submit this questionnaire to your technical instructor at the conclusion of your presentation within 72 hours.**



## **TIPS FOR A GREAT LOOKING TRI-FOLD**

1. Put all items on a backing, such as construction paper, before gluing onto the board. Leave an edge around the item so it will stand out on your board.
2. Make all captions computer generated in the same font. Use different sizes of font for emphasis. No hand-printing.
3. Glue items securely with rubber cement or double-sided tape. White glue causes wrinkles.
4. Use the bold face words shown on the example. Other items will be your own words.
5. Use contrasting colors, but limit the total number of colors used.
6. Models, samples, products, portfolios, etc. may be displayed in front of your tri-fold.

## **Timeline for Senior Project**

**The timeline for the marking periods may be found in the Student Handbook.**

**Component and/or Assignments required for each marking period will be determined by the Technical Instructor.**

**It is suggested that you start early on the development of your product and stay on the proper timeline.**

**Senior project will count for a minimum of 25% of each marking period's grade.**

## SENDING SCHOOL INFORMATION

### **NORTH PENN HIGH SCHOOL**

1340 Valley Forge Road  
Lansdale, PA 19446  
Principal: Mr. Todd Bauer  
Phone: 215-368-9800  
Email: [bauertm@npenn.org](mailto:bauertm@npenn.org)  
Senior Project Contact: Mrs. Summer Sieller  
[siellesa@npenn.org](mailto:siellesa@npenn.org)

### **METHACTON HIGH SCHOOL**

1001 Kriebel Mill Road  
Norristown, PA 19403  
Principal: Ms. Judith Landis  
Phone: 610-489-5000  
Email: [jlandis@methacton.org](mailto:jlandis@methacton.org)  
Senior Project Contact: Mrs. Jamie Gravinese  
Assistant Principal  
[jgravinese@methacton.org](mailto:jgravinese@methacton.org)

### **PERKIOMEN VALLEY HIGH SCHOOL**

509 Gravel Pike  
Collegeville, PA 19426  
Principal: Ms. Cynthia Lewis  
Phone: 610-489-1230  
Email: [cylewis@pvsd.org](mailto:cylewis@pvsd.org)  
Senior Project Contact: Ms. Patti Colucci  
[pcolucci@pvsd.org](mailto:pcolucci@pvsd.org)

### **SOUDERTON AREA HIGH SCHOOL**

625 Lower Road  
Souderton, PA 18964  
Principal: Mr. Samuel Varano  
Phone: 215-723-2808  
Email: [svarano@soudertonsd.org](mailto:svarano@soudertonsd.org)  
Senior Project Contact: Mr. William Coddington  
[wcoddington@soudertonsd.org](mailto:wcoddington@soudertonsd.org)

### **WISSAHICKON HIGH SCHOOL**

521 Houston Road  
Ambler, PA 19002  
Principal: Dr. Lynne Blair  
Phone: 215-619-8112  
Email: [lblair@wsd.web.org](mailto:lblair@wsd.web.org)  
Senior Project Contacts: Ms. Susan Inderbitzin  
[sinderbitzin@wsdweb.org](mailto:sinderbitzin@wsdweb.org)

