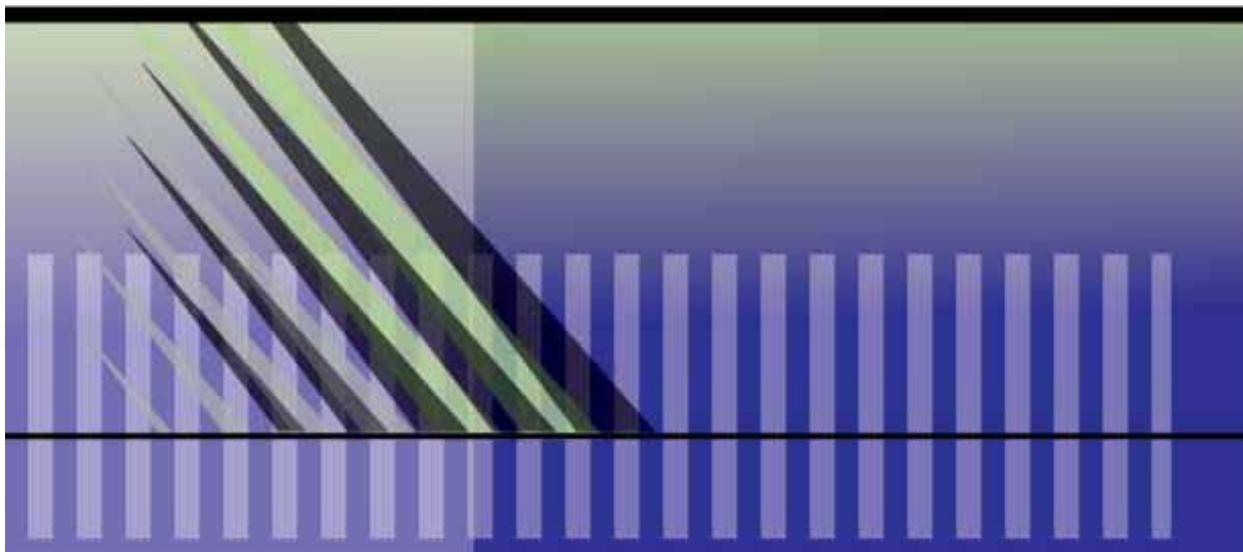


# Senior Project Manual

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## Special Thanks

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- Sam Bassitt, Director, West Central Tech Prep Consortium
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## Supplemental Materials:

Mills, Barbara and Stiles, Mary. “A Rookie’s Guide to Research” Union Creek Communications, Inc. Byrson City, NC. 1999

[www.techprepnwo.org](http://www.techprepnwo.org) See Mentor Video

# Introduction to Senior Projects

High school seniors are nearing the completion of 12 years of education. They have taken a variety of courses and developed an assortment of skills during those years. Now is the time for seniors to combine their knowledge and skills in a Senior Project to show what they have learned. A Senior Project provides an opportunity for a student to choose an area of interest, conduct in-depth research and demonstrate problem-solving, decision-making and independent learning skills. It contributes to a strong senior year of challenging courses and practical experiences that prepare students for the next step in the workplace or when pursuing further education.

A Senior Project involves several steps.

- First, the student selects a topic, gathers information, writes a **research paper** and keeps a portfolio of project activities.
- Second, the student produces a **product/process** that applies some aspect of the research.
- Third, the student makes a **formal presentation** to a panel composed of teachers, community leaders and peers who know about and are interested in the topic. After the presentation, panel members ask questions about the research and the product/process and find out what the student learned during the project as well as review the student's portfolio.

The student is not alone during the project. Each student meets individually with his or her Tech Prep Teacher. The student may also work with related academic instructors depending on the design of their

Tech Prep program. In addition, the student will work with a Product/Process Business or Industry Mentor who has expertise in the student's field of study.

Senior Projects should be challenging. They should require considerable effort on the part of the student in showing what he or she has learned. If a student approaches the project step by step and meets the deadlines, he or she will be able to manage the project successfully. There are many benefits involved in a Senior Project such as:

- Foster student as “active learners”, capable of solving complex problems and constructing meaning that is grounded in the world beyond the classroom that encourages collaborative learning with industry and community partners
- Organizing curriculum around authentic student projects which serve as a basis for learning from career and academic disciplines in an inter-disciplinary approach
- Developing capacities not conventionally taught, such as, ability to work independently, problem-solving which involves students as expert-practitioners who use and demonstrate their knowledge and skills, etc?
- Engages students in complex, challenging tasks which allow integration of learning, generation of knowledge, reflection, and creation of a product, and provides the student with the opportunity to work with business and industry partners
- Meets rigorous and measurable standards for academic and technical performance that reflect global demands, are required of all students, and make a diploma meaningful
- Serves as a capstone to a sequenced course of technical and academic study

# Senior Project Roles

## Role of the Student:

1. Complete requirements of the project in accordance with the pre-established checklist and timetable.
2. Select External Business or Industry Mentor
3. Maintain copies (electronically and/or paper) of all work in process, rough draft, final draft, etc.
4. Submit (electronically and/or paper) rough draft of research paper to Tech Prep Instructor (or appropriate instructor based on design of Tech Prep program)
5. Submit (electronically and/or paper) final draft of research paper to Tech Prep Instructor (or appropriate instructor based on design of Tech Prep program)
6. Document product/process project selection with Tech Prep Instructor
7. Keep a project log or journal
8. Develop copies of oral presentation outline for evaluation panel.
9. Develop a portfolio to display work
10. Write and distribute teacher approved thank-you letters to mentor and panelist
11. Complete and return a Senior Project evaluation concerning this experience.

## Role of the Tech Prep Instructor

1. Assist student with selection of project topic and final approval of project
2. Assist and advise student in the technical portion of the project
3. Oversee student in accordance to project guidelines
4. Review rough draft of research paper and advise student as to where revision may be needed.

5. Evaluate final draft of research paper
6. Allocate related class time to work with students regarding their senior project.
7. Evaluate the product/process project
8. Coach student in preparation for oral presentation and verify technical accuracy of presented materials
9. Create an end of project student evaluation survey form for the purpose of project improvement.
10. If there is no academic instructor connected to the design of the Tech Prep Program, the Career-Technical instructor will need to assist with the roles of the English Teacher that follows.

**Role of English Teacher** (*If Tech Prep program design includes the academic connection*)

1. Instruct the student in the proper form and process of the research paper
2. Collect and evaluation all written documentation pertaining to the Senior Project
3. Review rough draft of research paper and advise student as to where revision may be needed
4. Evaluate final draft of research paper to pre-established standards
5. Discuss with Career-Technical instructor regarding the content of research paper and integrate evaluations of form and content to final project grade
6. Coach student in appropriate methods of giving an oral presentation
7. Conduct a post presentation discussion with the student for the purpose of project improvement and implementation.

**Role of External Business or Industry Mentor**

1. Assist and advise student in technical aspect of research paper and/or product/process project.
2. Serve as resource to the student in all stages of the product/process project development
3. Allocate time and make arrangements for student to work on project as needed
4. Sign Mentor Agreement Form
5. Provide accurate and honest verification of student's work

6. Additional assistance could be provided by:
  - Reviewing student research materials
  - Evaluate their product/process project
  - Advise students in planning their oral presentation
  - Attend oral presentation

## Section 1:

# Guidelines for Senior Projects

### General:

The Senior Project is an integral part of a student's final year of high school. It integrates skills, concepts and data from the student's program of study into one culminating project. Students work on individual projects. Although, the product/process portion may have some joint relationship to other product/process project by other students, each presentation is completed independently.

A Senior Project consists of a written research paper, a major product/process and an oral presentation. Individual instructors will dictate how the projects are graded although this manual contains sample rubrics that might be helpful.

### Senior Project Topic Selection:

- Topic must be developed around the student's career focus
- Initially, the student will select several possible topics for teacher approval. (*Sample Senior Project Topic Selection Sheet*)
- When topic is finalized, the student will complete the Senior Project Commitment Form. (*Sample Senior Project Commitment Form*)

### Senior Project Components:

**Part 1 - Research Paper** - a formal paper that encourages students to develop and demonstrate proficiency in conducting research and writing about a chosen topic.

- Must be research-based utilizing at least 3 types of sources of information and a total minimum of 7 individual sources. Types of sources would be periodicals, library references, Internet, personal interviews, technical manuals, etc.
- Documentation of related research information through note cards or other means of note organization develop the initial outline of the paper.
- Paper must be word-processed and conform to MLA or APA standards. A Rookie's Guide to Research is included in this manual as a reference to MLA standards.
- All research papers should be 5-7 content/text pages in length. In addition to the content/text papers, there should be a title page and a bibliography. An Appendix support is optional based on topic.

**Part 2 - Product/Process Project-** a tangible creation based on choosing, designing and developing an item related to the student's research topic.

- The student will spend a minimum of 15 hours outside class work on a project related to the research topic.
- The Tech Prep instructor will approve the Product/Process Project. (*Sample Senior Product/Process Project Approval Form*)
- The student identifies an external mentor to assist with the project. The mentor should be an adult accomplished and experienced in the chosen project area. Student will meet a minimum of three times with mentor.
- All documentation of the Product/Process will be included in a **portfolio**. The following items may be included
  1. A log of the student's hours, including dates and times in an hour-by hour log and a description of what you did during these

- times. Travel time, thinking time or time spent practicing your presentation DOES NOT count toward your 15 hours. *(sample)*
2. Journal entries about each of the student's experiences (including dates). Entries should note obstacles, challenges, meaningful activities and encounters in a written discussion. *(sample)*
  3. Photographs or other visual documentation
  4. Letters of Recommendation from mentor or work-based connection as related to the project
  5. Include any notes, papers, flyers, and/or charts that you may have collected and/or created about the project
  6. Include a clean copy of your research paper
  7. Include a completed mentor sheet. *(sample)*
  8. Other items will also be included in the portfolio. *(See Section 5)*

**Part 3 - Oral Presentation-** a formal presentation of the project before a panel of judges. The presentation consists of a speech, an explanation of how learning was applied in developing the project and a discussion of lessons learned by the student.

- An 8-10 minute oral presentation (with note cards) given to an audience that might include administrators, teachers, student peers, parents as well as business and industry representatives.
- Speech content should include information about the research paper, the product/process project and how the student personally gains from completing the senior project. *(See Oral Presentation information sheet)*
- Include at least two types of visual components such as transparencies, computer generated graphics, PowerPoint, posters, etc.
- Student's portfolio of information should be brought to the oral presentation for review by the audience. Students should be prepared to answer questions from the audience or review panel.

## Suggested Time Line

Week # in One Semester	Week # in a Whole Year	Research Paper	Product/ Process	Presentation	Portfolio Item
2	4	Orientation	Orientation	Orientation	
3	6	Identify topic			X
4	8	Begin research	Tentatively identify product/process and get parental OK		X
5	10		Begin product/process journal/log		
6	12	Preliminary draft	Select Community or Business Mentor		X
7	14		Submit initial product/process plan		
8	16		Review project status and journal	Outline Speech presentation	
9	18	Submit final Draft			X
10	20			Design Visual Aids	X
11	22		Review project status and journal		Journal
12	24			Submit presentation outline	X
13	26			Practice presentation	
14	28		Journal / Product Due		
15	30	<i>Orient 11<sup>th</sup> graders to the Senior Project</i>		Make Presentation to Authentic Audience	X
16	32				
17	34				
18	36	Reflection	Reflection	Reflection	

## Student Activity Checklist

### Getting Started

All journeys begin with an important first step. The first step in a Senior Project is to choose a topic that interests you, will be fun to study and is worthwhile. Refer to the chart before and begin planning next steps as outlined.

Activity	Due Date	Date Completed	Comments
<i>Commitment Form</i>			
<i>Research Paper</i>			
Topic			
Outline			
First Draft			
Revision			
Final Draft			
<i>Product/Process</i>			
Mentor Identified			
Plan Submitted			
Parent Approval			
Journal/Log			
Compile Portfolio			
Product/Process Completed			
<i>Oral Presentation</i>			
Speech outline submitted			
Note Cards Developed			
Visual Aids Developed			
Portfolio Completed			
Speech/Presentation practiced			
<i>Follow-up</i>			
Thank-you notes			

## Section 2:

# Choosing a Senior Project Topic

A Senior Project is about doing and learning something that you want to do and learn about! This is your chance to choose a topic that will be interesting and worthwhile and will extend your knowledge of your Tech Prep area. However, making the decision may not be easy. Choose carefully, consult with your Career-Technical Instructor and remember to keep your project manageable. Here are some guidelines that might help you.

- Topics must be related to the student's career and technical area of interest.
- The topic must be broad enough to provide adequate resources and to yield a written report of the desired length and depth of study.
- Topics must be narrow enough to be covered within the time frame of the project.
- Topics must lend themselves to a manageable and affordable product/process project.

## Sample Senior Project Topic Selection Sheet

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

TOPIC 1 \_\_\_\_\_

Sources: 1.

2.

3.

TOPIC 2 \_\_\_\_\_

Sources: 1.

2.

3.

TOPIC 3 \_\_\_\_\_

Sources: 1.

2.

3.

Instructor approved topic \_\_\_\_\_

Instructor Signature \_\_\_\_\_

## Sample Senior Project Topic Selection Assessment Rubric

<b>Difficulty</b>	<b>1-Unacceptable</b>	<b>2-Marginal</b>	<b>3-Acceptable</b>	<b>4-Exemplary</b>
<b>Depth of Thought</b>	Major gaps are evident. Little or no reasoning is demonstrated.	There are major gaps in reasoning. Reasoning is somewhat apparent, but is flawed.	Reasoning is apparent, but a few minor gaps or flaws exist.	Reasoning is clear, concise and effectively demonstrated.
<b>Feasibility</b>	The project solution is clearly not possible within the parameters set forth by the problem.	The feasibility was in question until an explanation was requested and given. The solution may not be possible within the parameters of the problem.	While the solution is valid, it may not be easily replicated.	It is clear that the method of solution is valid and can be readily replicated.
<b>Attention to Detail</b>	The project is generally characterized by superfluous or surface knowledge.	Only a few questions are answered in detail. The work generally does not attend to the underlying detail required by the problem.	Most of the questions posed by the problem are directly answered in detail.	Questions are anticipated and addressed. All measures scales and other required annotations are documented.
<b>Creativity</b>	This approach to the project is a detail replication of an previous design. No new ideas are demonstrated.	The approach is obviously related to a previous design, but some novelty is shown.	While the design presented may be similar in approach to others, their unique characteristics exist that make this design stand out.	The approach to the design is fresh, novel and unique.

## Sample Senior Project Commitment Form

My senior son/daughter and I have read through the Senior Project material. We understand that there are three components of the Senior Project, which include a research paper, 15-hour product/process project and a 8-10 minute oral presentation.

We understand that due dates and syllabi will be distributed throughout the course of the senior year and that these due dates will need to be adhered to. We also realize that this three-part Senior Project must be completed as part of the grading system for the Tech Prep program.

If we have any questions throughout the year about the Senior Project, we understand that we may contact you at (insert phone number).

Parent Signature and Date \_\_\_\_\_

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

## Sample letter from Lancaster High School

Dear Seniors, Parents and Guardians:

As you may already know, one of the expectations we at Lancaster High School have of our seniors is that each student completes a Senior Project. The Senior Project was developed through our continuous improvement plan. Its purpose is not only to challenge all students and raise expectations to improve our students' achievement, but also to provide a culminating activity for seniors to demonstrate the essential skills they all should have before leaving high school.

Senior Projects consist of three components completed throughout the year. The first component of the Senior Project is the actual **research paper**. This should be finished by January. It will require the student to use specific skills - research, organization, written expression and critical thinking. For most seniors, this paper will be completed in the Senior English Class where the research paper is required to pass the course. Students not enrolled in Senior English will work with a career-technical teacher. The research paper will count as **40%** of the final Senior Project grade.

The second component of the Senior Project is the **product/process project** that is related in some way to the research topic. Each student is required to work with a mentor who can provide expertise and guide, facilitate and document the student's progress on the project. This project is to be done outside of class time requiring a minimum of 15 documented hours usually between December and March. Students are also required to maintain a portfolio and log to record their time, efforts, thought, etc. while completing the project. Most student find this part of the project the most fun, but is also is invaluable in developing and sharpening their problem solving, communication, time management, and "hands-on" real-life skills. The project/mentorship/portfolio is **40%** of the final grade.

The last part of the Senior Project is an 8-10 minute **oral presentation** of the paper and project that each student will make to a broad community membership and teachers in May. This is the chance where the students will get to brag and show their pride in what they have accomplished and learned. Although many students, presenting publicly can be stressful, you will agree that oral communication skills are essential for any person to have no matter what career path is chosen. The presentation is work **20%** of the complete Senior Project grade.

As you can see, the Senior Project develops and hones many important academic skills. However, many non-academic qualities are also stressed. Students will be expected to meet deadlines, so they will have to learn to plan and budget their time. They will often be required to overcome obstacles, move from their "comfort zones" and learn to cope with the healthy stresses that sometimes accompany that. The student will have to learn to make contacts with other people and find information in places not traditionally applied in school. Still, everything learned from completing the Senior Project process will only help a student become a more independent thinker, learning and problem solver. In turn, it is our hope that they will become a stronger, more independent and more successful member of society.

Each student determines the topic of his or her Senior Project. Of course, we will set some parameters. First, the topic must be related to their Career-Technical field and be appropriate for school. Secondly, the topic for the Senior Project must reflect a true learning experience or “stretch” for the student. This is, it must be something the student doesn’t know much about or hasn’t done before. Finally, there must be a connection between the topic of the paper and the nature of the product. We will not require students to spend money, and we discourage unnecessary physical risk. Those factors are to be determined by the student and their parents. Therefore, the school district and its employees will not be held liable for any injury or harm.

You may ask, “How will the Senior Project be graded?” Every student who is required to complete a Senior Project will be able to earn .5 elective credit which will appear as a second semester class on the grade card. Please note: no student will be enrolled in an additional class; the “course” will appear as an independent study credit. The grade earned for the research paper will be recorded, as the third nine-week’s grade. Then the grade for the actual project will appear for the fourth nine-weeks. Finally, the final exam will reflect the oral presentation grade. The final grade for the Senior Project will then be averaged in the same manner as for any other semester class. **However, if a student chooses not to complete one or more components of the Senior Project - the research paper, the project/mentorship/portfolio, and/or the presentation - an F will be recorded for the final grade.** Please know that the only part of the Senior Project required for graduation is the research paper; completing it is, and for many years has been required as part of Senior English. In addition, final exam exemptions do not apply to the Senior Project presentations.

While it is expected that each student take responsibility for completing a Senior Project, no student is expected to do it alone. As was mentioned, English teachers will assist with the research paper, and the mentor will serve as a guide in completing the project. In addition each student will be assigned an advisor who is person on the LHS staff who will serve as a coach - someone the student can go to for help, someone who will help keep the student on track in meeting deadlines and finding resources, someone to be there to help students through the stressful times. We are all here to do what we can to make this experience not only a challenging one, but we also want it to be rewarding and even fun. We want all students to experience a true sense of accomplishment by having them achieve something they may have thought they’d never be able to do.

We hope that you as parents and guardians will also take an active role in helping your student and become part of our team. Kathy Rexford serves as our administrator supervising the Senior Project, and Paulette Maravich and Doug Stull are our teacher coordinators. Please do not hesitate to contact any of us with any questions, concerns, ideas or suggestions you have (681-7500).

Best of luck as you all completed your senior year!

Sincerely,  
The Staff of Lancaster High School

## Sample Letter of Intent for Senior Project at Clay High School

Your street Address  
City, State, Zip  
Date

Mr./Mrs. Teacher's Name  
Clay High School  
5665 Seaman Road  
Oregon, Ohio 43616

Dear Mrs. Teacher

### Paragraph I

Describe the general area of interest. Also explain what you already know about this area and what experience you have in this field.

### Paragraph II

This paragraph should concentrate on the specific area of your paper. What ideas do you hope to include, and what sources do you plan to use? (Where will you find your information?)

### Paragraph III

Begin this paragraph with a transitional sentence that shows the relationship between your research topic and your product/process project. Then describe your project. What will it be? Who is involved? What is the potential cost? Estimate the time you'll need to spend on it and the possible resources you plan to use.

### Paragraph IV

Explain your understanding of plagiarism and its consequences. This is your pledge that you will do your own work.

Sincerely,

Your signature  
Your Name (typed)

## Section 3:

# Research Papers

### Getting Started on your Research Paper Assembling Research Information

#### Checklist for a Research Paper

- Construct a working bibliography
- Make note cards
- Organize the note cards and make outline
- Write rough draft
- Revise to a final draft
- Complete final paper

#### Making Note Cards

- Use a separate note card for each source
- Place the source number in the upper right corner of each card
- Use a separate note card for each main idea
- Write a label in the upper left corner of the card
- Write the page number at the bottom of each card
- Use only one side of the card
- Be sure to indicate quoted or paraphrased materials
- Be sure all notes exist within context and are accurately recorded
- Reread the notes to make sure you understand them

#### Organizing Note Cards

- Use label topics (from upper left corner) to organize the cards
- Discriminate between main and subordinate ideas
- Arrange cards in the order they will appear in the paper
- Write an outline that indicate the order

## Writing a Rough Draft

*An introductory paragraph is:*

- A general statement of information
- A transition sentence using works directly related to the thesis
- A thesis statement and explanation that:
  1. Contains a one-sentence statement of the topic being examined
  2. States an opinion
  3. Narrows the topic so it may be adequately supported in research

*The body of the paper contains:*

- The weakest pro-argument or least important reason/example in support of the thesis
- Secondary strongest point
- The strongest pro-argument or most important reason/example in the support of the thesis
- Proper documentation of the sources

*The conclusion may:*

- Restates the thesis
- Paraphrases or summarizes ideas supporting the thesis
- Take the topic one step beyond and predict the future of the problem

*The Bibliography*

- Is an alphabetical list
- Contains all sources used in the paper

*Miscellaneous*

- Follow either MLA or APA style
- Avoid plagiarism - presenting someone else's words or ideas as your own.
  1. Borrowing someone's words or ideas is acceptable as long as you give appropriate credit
  2. Common knowledge does not require documentation

## Writing the Final Paper

- Revise and edit the evaluated rough draft
- Make a copy to share with your mentor

## Sample Research Log

### Source

Type (i.e.: book, magazine, interview, computer software, Internet, videotape):

Publication Information (including date)

How will this research be useful?

### Source

Type (i.e.: book, magazine, interview, computer software, Internet, videotape):

Publication Information (including date)

How will this research be useful?

### Source

Type (i.e.: book, magazine, interview, computer software, Internet, videotape):

Publication Information (including date)

How will this research be useful?

## Sample Annotated Bibliography Rubric

### 1. Discussion:

Sufficient content, significant information,  
Main ideas, sentence variety, proper length 40 points

### 2. MLA Documentation:

Alphabetical order, proper punctuation,  
Proper format 25 points

### 3. Mechanics:

Grammar, mechanics, punctuation,  
Spelling (minus 1 point per error) 25 points

## Sample Research Paper Student Editing Sheet

Name \_\_\_\_\_

### Thesis Statement:

- |      |   |                       |          |
|------|---|-----------------------|----------|
| I.   | Content/Organization  |                       |          |
|      | • Length appropriate  | Yes _____             | No _____ |
|      | • All sections support thesis   | Yes _____             | No _____ |
|      | • Clearly written   | Yes _____             | No _____ |
|      | • Well-phrased sentences  | Yes _____             | No _____ |
|      | • Good transitions  | Yes _____             | No _____ |
|      | • Conclusion restates thesis  | Yes _____             | No _____ |
|      | • Conclusion offers solution  | Yes _____             | No _____ |
| II.  | Use of Sources  |                       |          |
|      | • Correct number of sources   | Yes _____             | No _____ |
|      | • How many  | Works Cited _____     |          |
|      |   | Works Consulted _____ |          |
|      | • Paraphrased information correctly documented                          | Yes _____             | No _____ |
|      | • No paragraph citations  | Yes _____             | No _____ |
|      | • Number of citations in paper  | Yes _____             | No _____ |
| III. | Mechanics   |                       |          |
|      | • Underlined book, magazine and play titles                             | Yes _____             | No _____ |
|      | • Quotation marks around magazine articles                              | Yes _____             | No _____ |
|      | • Parentheses around citations  | Yes _____             | No _____ |
|      | • Periods follow parenthesis  | Yes _____             | No _____ |
|      | • End punctuation mark before closing quotation marks in a direct quote | Yes _____             | No _____ |
|      | • Corrected all spelling errors   | Yes _____             | No _____ |
|      | • Eliminated fragments  | Yes _____             | No _____ |
|      | • Eliminated run-on sentences   | Yes _____             | No _____ |
|      | • Eliminated contractions   | Yes _____             | No _____ |
|      | • Mechanical/grammatical errors   | Yes _____             | No _____ |

## Sample Final Copy of Research Paper Grading Sheet

Name \_\_\_\_\_

### Format (65 points)

- \_\_\_\_\_ Title/Cover Page (5)
- \_\_\_\_\_ Thesis Page (15)
  - \_\_\_\_\_ One page in length (3)
  - \_\_\_\_\_ Thesis sentence in the opening paragraph (5)
  - \_\_\_\_\_ Concise summary of content of paper (7)
- \_\_\_\_\_ Works Cited Page/Bibliography (25)
  - \_\_\_\_\_ Correct number of sources, in appropriate category (14)
  - \_\_\_\_\_ Indentation correct and alphabetically organized (6)
  - \_\_\_\_\_ MLA design and punctuation followed (5)
- \_\_\_\_\_ In-Text Citation (20)
  - \_\_\_\_\_ Variety of sources and documentation is used (15)
  - \_\_\_\_\_ Proper format (5)

### Grammar (90 points)

- \_\_\_\_\_ Paraphrases difficult concepts/language (10)
- \_\_\_\_\_ Punctuation including capitals, commas, etc. (20)
- \_\_\_\_\_ Paragraph breaks correctly (10)
- \_\_\_\_\_ Correct spelling (15)
- \_\_\_\_\_ Sentence structure - no fragments/run-ons (15)
- \_\_\_\_\_ Uses non narrative perspective (no 1<sup>st</sup> or 2<sup>nd</sup> person pronouns [I, you]) (20)

### Organization (45 points)

- \_\_\_\_\_ Follows a logical progression (15)
- \_\_\_\_\_ Includes all components (10)
- \_\_\_\_\_ Required length (20)

Total Points    200

Points Earned    \_\_\_\_\_

Grade    \_\_\_\_\_

## Sample Research Paper Rubric

Criteria	Possible Points	Earned Points
1. Proper title page heading including name, teacher name, course, date, centered title and proper pagination	5	
2. Outline: Formal, includes thesis	5	
3. Introduction: universal, bridge, thesis Conclusion: not a repeat of the introduction	5	
4. Points of proof <ul style="list-style-type: none"> <li>• Your own analysis, supported by sources</li> <li>• Strong topic sentences</li> <li>• Elaboration/well developed paragraphs</li> <li>• Effective use of sources of proof</li> </ul>	10 5 10 5	
5. Transitions and flow, organization, focus	7	
6. Mechanics: grammar, mechanics, punctuation Spelling (minus 1 point per error)	23	
7. Internal documentation: form, usage, incorporation of quotes	15	
8. List of works cited: MLA form	10	

Points 100

Earned Points \_\_\_\_\_ Grade \_\_\_\_\_

## Sample English Grading Rubric

Rough Draft (typed)

Final Draft (typed)

<b>Format: 20 points</b>				
• Correct title page	4	3	2	revise
• Correct outline	4	3	2	revise
• Correct subheadings and titles	4	3	2	revise
• Correct numbering	4	3	2	revise
• Correct margins	4	3	2	revise
<b>Structure 20 points</b>				
• Appropriate title sheet	4	3	2	revise
• Thesis statement	4	3	2	revise
• Well developed body (adequate information) and clear method of development	4	3	2	revise
• Adequate conclusion	4	3	2	revise
• Adherence to outline	4	3	2	revise
<b>Documentation 20 points</b>				
• Correct parenthetical documentation	4	3	2	revise
• Correct works cited page	4	3	2	revise
• Variety of sources	4	3	2	revise
• All required citations included (lack of Plagiarism) <i>Any paper where 10% or more has been plagiarized will receive a ZERO</i>	8	6	4	revise
<b>Mechanics 12 points</b>				
• Spelling	4	3	2	revise
• Capitalization	4	3	2	revise
• Punctuation	4	3	2	revise
<b>Usage 28 points</b>				
• Parallel structure	4	3	2	revise
• Sentence variety	4	3	2	revise
• Consistency in tone and voice	4	3	2	revise
• Tense consistency	4	3	2	revise
• Pronoun and antecedent agreement	4	3	2	revise
• Transitions	4	3	2	revise
• Subject and verb agreement	4	3	2	revise

Total 100

Points Earned \_\_\_\_\_

Grade \_\_\_\_\_

*The English Teacher could utilize this rubric (if the Tech Prep program is thus organized).*

## Sample

### Evaluating the Research Paper

<b>Format:</b>	Title Page	(2)
	Footnotes	(5)
	Pagination	(2)
	Works Cited	(11)
<b>Grammar:</b>	Spelling	(10)
	Punctuation	(10)
	Sentence Structure	(10)
	Capitalization	(5)
	Tenses	(5)
	Formal Tone	(2)
<b>Organization:</b>	Beginning (thesis statement)	(7)
	Middle (well-developed paper)	(25)
	End (conclusion in keeping with the paper's topic)	(6)

**Total      100**

## Evaluating the Product/Process

A high level of technical expertise was evident	1	2	3	4	5
The product represents an appropriate level of challenge / difficulty	1	2	3	4	5
The product clearly applies concepts covered in research content	1	2	3	4	5
The student used appropriate materials to construct the project	1	2	3	4	5
The student showed evidence of problem-solving ability, creativity and originality					
The student was conscientious in making an effort	1	2	3	4	5
Total: _____ (x 3) = _____					

## Section 4:

# Selecting a Mentor

(External Business or Industry Mentor)

### IT IS TIME TO CHOOSE YOUR PRODUCT/PROCESS MENTOR

A Product/Process Mentor is someone you trust who knows the subject of your project and will take a sincere interest in guiding you to successful completion of your product.

#### What does the mentor do?

- Provides expertise in the product area
- Gives suggestions and advice
- Supports your efforts
- Gives you feedback

#### Before you choose a mentor:

- Clearly define your product
- Be specific about what you expect from your mentor, including time commitments
- Be able to show how mentorship will benefit the mentor.

#### How do you choose a mentor?

- Brainstorm possible experts within your chosen field of study
- Talk to parents, friends and/or teachers about possibilities
- Look for someone who has the expertise and is interested in mentoring you through completion of your product/process.

Once you have a mentor - what should happen?

- Meet with your mentor
- Determine how often you will meet with your mentor
- Decide what areas of your project they will assist with ie: project details, review speech, etc.
- Ask mentor to be part of your review team

## Sample Senior Project Mentor Agreement Form

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

**Mentors:** In order for students to complete their Senior Project, they must work

with a mentor who has expertise in the area being explored. The mentor must be willing to verify the student's efforts and time spent. Each student should spend at least 15 hours creating their product/process project and additional hours with the mentor. If you are willing to serve as this student's mentor, please complete the form below. Thank you for your participation.

I agree to serve as a mentor for the above named student while they complete the Senior Project during \_\_\_\_\_ school year.

Mentor Name \_\_\_\_\_ (print name)

Address \_\_\_\_\_  
\_\_\_\_\_

Phone \_\_\_\_\_

e-mail \_\_\_\_\_

Relationship to Student \_\_\_\_\_

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



## Section 5:

# The Product/Process Project

Carefully choose a product or process that you can build or produce or a community-based service you could provide. Answer these questions as you decide:

- Does the research enhance the product? Is there a clear connection between the research topic and the product / process you want to produce?
- Does the product / process represent significant amounts of time, effort and appropriate complexity? Does it go beyond what you already know how to do?
- Is the project something you will do outside of your regular class or co-curricular requirements? A product / process that you produce for a career-technical student organization will not fulfill the Senior Project requirements unless it goes substantially beyond the parameters of that product.
- Will the product involve tangible evidence of your work - either something physical that can be seen and touched, a community-based service that can be documented as beneficial or something that can be written, produced, taped and presented?

## Sample Senior Product/Process Project Approval Form

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

Product/Process Title \_\_\_\_\_

### Product/Process Proposal

Description

Steps for Product/Process completion

Special Equipment/Facilities/Environment

### Cost Analysis

Materials List

### Approvals

Business Mentor Signature/Date \_\_\_\_\_

Tech Prep Signature/Date \_\_\_\_\_

Parent's Signature/Date \_\_\_\_\_

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

## Sample Product/Process Project Proposal

Here are some areas you should cover in your Product/Process Project Proposal.

- Briefly describe your idea.
- What subject(s) or topic(s) do you expect to learn about through your project?
- What skills and understanding will you develop and/or demonstrate?
- What kind of project/process do you envision?
- Name the person(s) with expertise in your area of interest who could serve as your Business/Industry Mentor. If you do not yet know of a person, write down some ideas about how you might find a mentor.
- What do you hope your project will contribute to your school and/or community?
- What do you hope to learn about yourself?
- What most excites you about your proposed project?

## **What it the student needs to modify their Senior Product/Process Project?**

As sometimes happens, students may need to modify their original Senior Product/Process Project. If that happens, students should address these questions as they consider modifying their original proposal.

1. How do you wish to change your proposed project?
2. What is the purpose of these changes?
  - How will these changes help you more fully explore your area of interest?
  - How will these changes allow you to better demonstrate or represent your learning?
3. Have you discussed the proposed changes with others such as your parents, mentor, etc? What response have you received?
4. How will these changes affect your product/process time line?

## Project Journal Log

Keeping a journal will help you record important questions, ideas, and discoveries as you develop your project.

### What should I write in my journal?

1. Project ideas, plans, reflections, questions
2. Informal notes and bits of information
3. Accounts of conversations with your mentor or others
4. Things you are thinking about

### When should I write?

1. At least three or four times per week
2. Early in the morning, end of day, or any time
3. Whenever you have a problem to solve, decision to make, etc.
4. Whenever you need to think something out

### How should I write?

1. Quickly and freely, getting lots of ideas on paper
2. In any form that makes sense to you
3. In your own voice

### Who will read my journal?

1. Your project advisor will review your journal
2. No one will read entries that you prefer to keep private
3. You may be asked to share some journal entries with the panel at our presentation

### Suggestions:

1. Date each entry and start each new entry on a new page
2. Write often: regular writing is what makes a useful journal
3. Whenever you can, write long enough to develop ideas fully

### Sample Log Entry

Wednesday, February 10<sup>th</sup>

This was my first meeting with my mentor and I had no idea what to expect. I have had no experience with cars other than driving them and filling them up with gas. I was worried that I would not be able to understand what I was to do. My mentor first had me watch him as he performed an oil change on his truck, a Chevy s10. He talked through each stop, explaining what he was doing. He then ask me to change the oil on the next schedule care, a Ford Tempo. I was very apprehensive, worried that I would mess sup but he reassured me that I could do it and 3watched as I changed the oil. I was very messy and I ended up covered with grease but I was happy with how quickly I caught on. (2 hours, 30 minutes)

Monday, February 15<sup>th</sup>

I went to the library to find information on care maintenance so I could begin working on my mini-manual. I do not want something very long and in-dept, just a few helpful hints about general and roadside maintenance. (1 hour, 30 minutes)

## Sample Log Format

Name \_\_\_\_\_

Project \_\_\_\_\_

Date	Time	Activity	Comments

## Section 6:

# The Presentation Process

### Portfolio Checklist

A portfolio is a good way to strengthen learning. It enables you to reflect on new information and to apply that knowledge in new and creative ways. A Senior Project portfolio should include all forms, references and activities associated with the project: proposals, research information, logs, journals, etc. Portfolio items should be accurate, clean, neat, is sequenced, assembled, labeled and filed in a three-ring finder (or in some other organizer) for future reference.

Recommended items:

- This Checklist
- Topic Selection Form
- Parental Approval Form
- Outline of Research Paper
- Research Paper
- Journal or Learning Log
- Product Agreement Form
- Evidence of work i.e.: pictures, materials collected, newspaper articles, etc.
- Letters of recommendation from Business/Industry Mentor
- Copy of oral presentation
- Other records of learning experience

## Sample Project Rubric

1. 15 hours minimum (determined by portfolio) (2 points per hours)	30 points
2. Project presents an extension of the research	15 points
3. Documentation (in portfolio)	35 points
• Journal or log entries	6 points
• Photographs	4 points
• Letter of Recommendation	4 points
• Papers/Notes/Flyers/Charts	4 points
• Research Paper	4 points
• Copies of all required forms	4 points
• Reflection/Self-Evaluation	9 points
4. Signed mentor sheet: minimum of 3 meetings	10 points
5. Care and attention to detail, quality product Also includes quality of the portfolio	10 points
<b>Total Points</b>	<b>100 possible</b>

## Tips for Successful Presentations

### Preparation

- Practice your presentation and know your subject well
- Prepare handouts for your audience that highlights the main points of your presentation.

### Format

- Think “multimedia!”. Use a variety of formats, including video images, slides, overheads, computer graphics, 3-D models and 2-D presentation boards. Plan carefully to make sure you have all of the equipment you need.
- Use materials such as poster board, markers, colored paper and cardboard to prepare “professional style” presentation boards.

### Standards

- Set high standards for your presentation; check all written work for grammar and spelling; create a clear graphic layout; and thoroughly label all products and exhibition board.
- Ask your mentor to review the materials before your presentation

The following will help you organize your presentation. Prepare your speech and practice it many times to build comfort and confidence. Dress properly, check your schedule for your presentation and make notes so that you will feel more at ease in making the presentation.

### Speech Organization:

- **Introduction:** Introduce your topic and try to capture the audience’s attention
- **Body:** List and explain four key points that you want to make:
  - Point 1: How did you become interested in the topic?
  - Point 2: What did you learn from the research?
  - Point 3: What did you learn from the project?
  - Point 4: What did you learn about yourself and how has this information affected your plans for the future
- **Conclusion:** Connect the introduction, implications for learning and possible plans for the future.
-

## Speech Preparation

Step 1: What are you going to talk about? Answer the following questions.

1. How do your paper and project connect?
2. What emotions did you experience as you worked through the paper and project? (anger, excitement, pride, frustration)
3. What problems did you encounter? (money, time management, skill) Explain.
4. What personal growth did you gain from the paper and project? What self-knowledge did you gain? What knowledge of your topic did you gain?
5. How did the project affect your plans for the future? Explain
6. What project advice would you pass on to next year's seniors?

Step 2: How am I going to say this? Use the answers to the questions above as references.

1. Organization - jot down your ideas on separate 3 x 5 index cards and arrange them into order that is logical and pleasing.
2. Slip blank cards into spaces where a visual aid is needed or would be appreciated.
3. Add blank cards for the introduction and conclusion.
4. If you have a project that can be displayed, jot down your ideas for that display on another card, i.e. photographs
5. Plan your introduction. The introduction should
  - Grab the audience's attention
  - Make the topic thesis clear (be sure to mention both paper and project)
  - Take no more than 60 seconds)
6. Plan your conclusion. A good conclusion should
  - Restate topic / thesis
  - Leave the audience thinking
  - Take no more than 30 seconds
7. Plan the display of your project. Will it be an on-going, integral part of your speech, such as a slide show? Part of your introduction? Happen after your conclusion? Will you wear it? Sit on it? Serve up samples? (Avoid passing items during your speech - this cause too much distraction.)

8. Plan your visual aids (Two types should be included)
9. Make sure your Senior Project Advisor knows what equipment you will need.
10. Look at each idea card and fill in details, colorful anecdotes and factual information
11. Place all cards back in order and begin practicing your speech.

### Step 3: Speech techniques to remember

1. **Eye contact** - This is extremely important. Practice often enough so that you rarely need to look at your cards. Remember this is a friendly audience. Your peers and your judges are pulling for you. You need the reinforcement that their encouraging expressions will give you. Look at them. True communications happens with the eyes. A speech without eye contact is only half a speech.
2. **Posture** - Stand Proud. You have a right to be. You have accomplished a great deal. Avoid:
  - Gripping the podium - white knuckles are unattractive.
  - Locking your knees - you've come too far to faint now.
  - Twitching, wiggling, shaking
3. **Voice** - your voice needs to:
  - Be loud enough to be heard
  - Vary appropriately in pitch and tone
4. **Gesture** - Use your hands to help make your point. Gestures should be natural and spontaneous, not choreographed and mechanical.
5. **Props** (audio-visuals) - Plan and practice using any prop or audio-visual you will need during the presentation.

Step 4: Prepare for questions. Of course, there is no way to know for sure what the panel members will ask you, but you can make some educated guesses and that process will provide you with the confidence and clear-headedness to take on any question. Answer the following brainstorm questions.

1. If you were a judge listening to your speech, what would you want to know?
2. What would you like people to ask?
3. What unusual qualities does your project have that might spark interest?
4. What part of your paper might make people curious?
5. What controversial topics, if any, do you touch on?

6. What possessed you to choose this topic?
7. Who helped?
8. How did you finance it?
9. How much time did you spend?
10. Does the project double as credit for another class?

Your Senior Project Presentation should be the peak of your high school career. Your audience will be small and supportive. You will be well prepared. This is your chance to show off, to shine. **ENJOY!**

### **Presentation Visual Aid Ideas**

You must have at least two different kinds of visual aids.

- Computer-generated Presentations
- Posters
- Photographs
- Slide Presentation
- Displays
- Video Tape
- Demonstration
- Art Form: Poetry, Music, Dance
- Role Playing
- Monologues
- Character Sketch

## Section 7:

# Assessment Process of Senior Project

### Sample Senior Project Presentation Rubric

**Content** Low (1) to High (5) 3.5 = C

	20%	40%	50%	60%	70%	80%	90%	100%
<b>Introduction</b> - clearly stated or implied: good attention getter	1	2	2.5	3	3.5	4	4.5	5
<b>Main Idea</b> clear and well supported by detail	1	2	2.5	3	3.5	4	4.5	5
<b>Organization</b> - logical flow of ideas, not choppy or random	1	2	2.5	3	3.5	4	4.5	5
<b>Application of learning</b> - "I never knew..." "I learned..." "I plan to use this knowledge..."	1	2	2.5	3	3.5	4	4.5	5
<b>Conclusion</b> - reviews ideas, has memorable statement	1	2	2.5	3	3.5	4	4.5	5
<b>Balanced</b> content between paper and project	1	2	2.5	3	3.5	4	4.5	5
<b>Language Usage</b> - transition, word choice, style	1	2	2.5	3	3.5	4	4.5	5
<b>Challenge</b> - Did the student reach beyond comfort zone?	1	2	2.5	3	3.5	4	4.5	5
<b>Total</b>								

**Delivery** Low (1) to High (5) 3.5 = C

	20%	40%	50%	60%	70%	80%	90%	100%
<b>Eye Contact</b> - looks at audience, not just notes	1	2	2.5	3	3.5	4	4.5	5

Poise - appears comfortable	1	2	2.5	3	3.5	4	4.5	5
Posture	1	2	2.5	3	3.5	4	4.5	5
Rate and volume of speaking	1	2	2.5	3	3.5	4	4.5	5
Gestures	1	2	2.5	3	3.5	4	4.5	5
Avoids vocalization pauses - uh, um, like, and, you	1	2	2.5	3	3.5	4	4.5	5
Appearances - appropriate dress, neatness	1	2	2.5	3	3.5	4	4.5	5
Use of audio and/or visual aides	1	2	2.5	3	3.5	4	4.5	5
<b>Total</b>								

### Sample Presentation Rubric

	Points Possible
Use of 3 x 5 index cards	5
Appropriate dress	10
Length of time (8 to 10 minutes)	10
Command of the topic	5
Content: Technically current	10
Organization: <ul style="list-style-type: none"> <li>• Materials ready (5)</li> <li>• Clear and interesting (5)</li> <li>• Introduction - focus (5)</li> <li>• Sense of closure (5)</li> </ul>	20
Two visual aids - Quality related to topic (must be 2 kinds)	20
Pace: adequate for note taking and interest	5
Voice: Clarity, volume, energy, no "ums"	5
Eye Contact	5
Posture/poise	5

Total Points Possible 100

## Sample Evaluating a Presentation

<b>Communication</b>					
<b>Verbal</b>					
• Volume/tone	1	2	3	4	5
• Grammar	1	2	3	4	5
• Speech pattern/pace	1	2	3	4	5
<b>Non-Verbal</b>					
• Appearance	1	2	3	4	5
• Eye Contact	1	2	3	4	5
• Poise/Delivery	1	2	3	4	5
Total: _____ (x 1) = _____					

<b>Content</b>					
Subject properly introduced	1	2	3	4	5
Key points made	1	2	3	4	5
Accurate information	1	2	3	4	5
Logical flow	1	2	3	4	5
Visual Aids appropriate	1	2	3	4	5
Visual Aids attractive	1	2	3	4	5
Total: _____ (x 2) = _____					

## Sample Presentation Rubric

Students will lose 20 points for each day that the presentation is late

	Points
<b>Content</b> <ul style="list-style-type: none"><li>• Student demonstrates expertise in topic area</li><li>• Student responds appropriately to questions</li></ul>	25
<b>Organization of Presentation</b> <ul style="list-style-type: none"><li>• Students uses introduction and conclusion</li><li>• Student shows evidence of preparation</li><li>• Student shows originality and creativity</li><li>• Student utilizes visual aids (2 types)</li></ul>	25
<b>Communication Skills</b> <ul style="list-style-type: none"><li>• Student speaks clearly</li><li>• Student uses proper grammar</li><li>• Student chooses words appropriately</li><li>• Student shows evidence of practice</li><li>• Student uses proper body language, posture, etc.</li></ul>	20
<b>Appearance</b> <ul style="list-style-type: none"><li>• Student dresses appropriately for presentation</li><li>• Visual aids are neat, accurate and organized</li></ul>	10
<b>Overall Effectiveness</b>	10
<b>Time Management</b> <ul style="list-style-type: none"><li>• Student completes the presentation in the allotted time of 8 to 10 minutes (excluding questions)</li></ul>	10

## Guidelines for Judges

1. Be aware that these students have no past - all you know about them will come from their portfolios and their oral presentation only. If the student has a disability or special need, you will be advised of that.
2. Consider the risks these students have taken. Many have stepped out of their comfort zones to try new things - they have taken risks in order to learn something worthwhile to them. **The project is successful if the student has learned.** The more learning that has taken place, the more successful the project is.
3. All judges need to preview the student's work by examining the student portfolio for their designated project. The portfolios are ready for viewing through the Career-Technical Instructor. **Remember that the portfolios have already been evaluated.** You are examining them in order to become familiar with the student's work on the Senior Project.
4. The portfolio should include, but not be limited to:
  - Project Overview
  - A variety of approval and/or verification forms
  - Mentor Information
  - Research Paper
  - Project logs
  - Evidence of project (pictures, written materials, etc)
  - Project Self-Evaluation Form

We really hope this turns out to be a rewarding experience for all of you who have volunteered to help. Thanks again for your support.

## Panelist Assessment Sheet

As you review the student's work, and as you listen to the oral presentation, think about the work in relation to four broad categories: Purpose, Findings, Reflections and Communication.

Performance standards are listed below for each of the categories. Please use the rating scale provided.

I. **Purpose:** Has the student clearly stated the purpose for doing this project, particularly in terms of its personal and social relevance?

- The student described how they became interested in the topic/project.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student clarified the personal meaning of the project.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

II. **Findings:** Has the student arrived at a coherent set of findings/outcomes?

- The student made clear what they learned about the field of inquiry.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student described clearly how their work connects to the work of other people in the field.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student identified new questions, ideas or activities to pursue as a result of this work.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

III. **Reflections:** Has the student told the story of their project and analyzed what they learned?

- The student provided a coherent narrative of the project, including obstacles and surprises.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student reported what they learned about this kind of major independent project.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student assessed their own strengths and shortcomings in carrying out the project.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

IV. **Communications:** Has the student presented the work in a way that conveys its meaning and observes the conventions of written and oral communications?

- The student prepared the materials in a clear, concise and well-organized manner.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student gave well-organized and thoughtful oral presentation and conveyed a sense of mastery of the material and awareness of audience.

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention

- The student used supporting materials (e.g., visuals) that enhance the presentation

1	2	3	4
Exceeds	Meets	Approaches	Needs Attention



# Sample Senior Project Rubric

Name \_\_\_\_\_

Topic \_\_\_\_\_

Evaluation Components	Excellent	Good	Satisfactory	Unacceptable
<b>Research</b> Points 50	4	3	2	1
<ul style="list-style-type: none"> <li>• Chooses a clear and manageable topic to research</li> <li>• Uses a variety of sources</li> <li>• Selects appropriate sources</li> <li>• Includes current data</li> <li>• Cites sources correctly using MLA or APA style</li> <li>• Incorporates up-to-date information that is technically correct</li> </ul>				
<b>Written Report (Mechanics)</b> Points 100 (50 rough/50 final)	4	3	2	1
<ul style="list-style-type: none"> <li>• Correction of rough draft according to suggestions</li> <li>• Contains good written expression</li> <li>• Contains appropriate introduction and summary</li> <li>• Contain correct grammar and word usage</li> <li>• Contains correct spelling</li> </ul>				
<b>Written Report (Technical)</b> Points 100 (50 rough/50 final)	4	3	2	1
<ul style="list-style-type: none"> <li>• Includes adequate information to cover topic</li> <li>• Provides sufficient background for reader</li> <li>• Paper is comprehensive and complete</li> <li>• Examines issues/ideas beyond basic concepts - puts thoughts into your own words</li> </ul>				
<b>Timeline</b> Points 50	4	3	2	1
<ul style="list-style-type: none"> <li>• Submits research materials on time</li> <li>• Submits rough draft on time</li> <li>• Submits corrected final draft on time</li> <li>• Submits completed product/process on time</li> <li>• Completes presentation on time</li> </ul>				
<b>Product/Product</b> Points 150	4	3	2	1
<ul style="list-style-type: none"> <li>• Exhibits research beyond knowledge gained through career-technical area</li> <li>• Demonstrates creativity and originality</li> <li>• Shows evidence of planning and organizing</li> <li>• Uses correct terminology</li> <li>• Worked closely with mentor</li> <li>• Kept accurate log/journal</li> </ul>				
<b>Oral Presentation</b> Points 100	4	3	2	1
<ul style="list-style-type: none"> <li>• Demonstrates expertise on topic</li> <li>• Speaks clearly</li> <li>• Uses proper grammar</li> <li>• Exhibits good eye contact</li> <li>• Dresses appropriately for presentation</li> <li>• Shows evidence of practice and preparation for presentation</li> <li>• Uses appropriate visual aids to enhance presentation</li> </ul>				

Total Points 550 Student Received \_\_\_\_\_ Grade Earned \_\_\_\_\_

## Sample Senior Project Evaluation Rubric

Points Possible	Evaluation Areas	1	2	2.5	3	3.5	4	4.5	5	X=	Total Points
5	Completion of Topic Selection Sheet									X1	
5	Senior Project Commitment Form									X1	
5	Project/Process Project Approval Form									X1	
5	Senior Project Checklist									X1	
50	Research Paper									X10	
10	Mentor Identification Sheet									X2	
20	Senior Project Overview									X4	
50	Product/Process Project									X10	
50	Student Log/ Journal									X10	
10	Degree of challenge for the student									X2	
50	Oral Presentation									X10	
50	Portfolio: Physical Evidence of Learning									X10	
25	Senior Project Self-Evaluation									X5	
335	Total Points										

## Section 8: **Student Reflections**

### Sample Senior Project Self-Evaluation

1. In at least 25 words describe your project.

2. Answer the following:

A. Estimated total hours spend on project

\_\_\_\_\_

B. Estimated number of steps to your project

\_\_\_\_\_

Step 1

Step 2

Step 3

Step 4

C. Date Started

D. Date Completed

\_\_\_\_\_

E. Materials Used:

\_\_\_\_\_

F. List every kind of resource (including people)

**3. Circle the appropriate response**

- |   |     |    |     |
|---|-----|----|-----|
| A. Did community resources help   | Yes | No | N/A |
| B. Have you asked for advice/comments about your project from other people? | Yes | No | N/A |
| C. Did you utilize task analysis and time management principles?            | Yes | No | N/A |
| D. Have you ever done a project like this before?                           | Yes | No | N/A |
| E. Would you recommend your project area for future senior project          | Yes | No | N/A |
- Explain:

**4. Answer in 25 words or less:**

- A. Would you feel threatened to show your project to an expert for evaluation?

- B. List three things that you now know after completing your senior project.

- C. List all personal satisfaction you gained from this project experience.

D. Describe what risks you took in completing this project. Consider not only a physical risk, but also an emotional or intellectual challenge.

E. How do you feel your project would compare to other similar projects? Explain

# Appendix A: Rubrics

A rubric sets criteria or standards that can be used to evaluate student learning, and gives observable indicators of various quality levels. Some teachers say, “I know good work when I see it,” but they have a hard time putting those criteria or standards into words. The description of quality levels included in a rubric allows teachers to identify what a specific level of work *looks like*.

Many teachers use rubrics to assess project-related processes, products and/or student performance. Benefits of using rubrics include the following:

- Rubrics provide *clear and accurate* definitions of 3-5 quality levels
- Rubrics allow teachers to *customize* their assessment of projects by choosing the most appropriate criteria.
- Rubrics allow teachers to be *accurate and consistent* in their assessment of processes, products or student performance.
- Students can *understand* what is expected of them - before, during and after project participation. (To encourage student buy-in to criteria included in the rubrics, students can be involved in developing criteria.)
- Rubrics accept and do not penalize *creativity*.

To gain an understanding of the components of rubrics, take a few minutes to examine several of those included in this manual. Notice there are **criteria** that will be used to assess a student’s work. The remaining columns describe **different levels** of student performance.

Web sites that have useful rubrics:

Rubric Template Visit this page for an all-purpose rubric template. Also check out the examples from teachers who have used this template to build their own rubrics.

[www.esc20.net/etprojects/formats/webquests/summer99/northside/spurs/rubric](http://www.esc20.net/etprojects/formats/webquests/summer99/northside/spurs/rubric)

Web Publishing Rubric This rubric has ways to evaluate projects, which culminate in the publishing of a web page. [www.esc20.net/etprojects/rubrics](http://www.esc20.net/etprojects/rubrics)

Analytical Thinking Process of Problem Solving Rubric: This rubric assumes the difficult task of assessing the thought processes behind problem solving.

[www.iusd.k12.ca.us/schools/rancho\\_san\\_joaquin/rsjdocs/analytic/psrubric](http://www.iusd.k12.ca.us/schools/rancho_san_joaquin/rsjdocs/analytic/psrubric)

Oral Presentation Rubric: A short rubric for teacher and self-assessment of a student's oral presentation.

<http://projects.edtech.sandi.net/morse/oceanhealth/rubrics/oralpresentation.html>

Problem Based Learning with Multimedia: A rubric for assessing multimedia use, collaboration and project content. <http://pblmm.k12.ca.us/PBLGuide/Mmrubric.htm>

The Rubric Bank: Numerous rubrics in pdf format as well as some tips for choosing which one is right for you.

[http://intranet.cps.k12.il.us/Assessments/Ideas\\_and\\_Rubrics/Rubric\\_Bank/rubric\\_bank.htm](http://intranet.cps.k12.il.us/Assessments/Ideas_and_Rubrics/Rubric_Bank/rubric_bank.htm)

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# Appendix B: Helpful Hints

## Senior Project and Project-Based Learning: Some Helpful Websites and Samples

Before you start re-creating all your own documents, it is great to surf websites from organizations and schools involved in senior projects and project-based learning that provide information, forms, resources, rubrics and sample projects.

[www.bie.org/pbl/index](http://www.bie.org/pbl/index)

[www.ehs.suhsd.net/senior\\_project/senior\\_project/contents](http://www.ehs.suhsd.net/senior_project/senior_project/contents)

[www.stemnet.nf.ca/sciencefairs/senior](http://www.stemnet.nf.ca/sciencefairs/senior)

[www.helixcharter.net/seniorproject/rrivas/index](http://www.helixcharter.net/seniorproject/rrivas/index)

[www.serve.org/seniorproject](http://www.serve.org/seniorproject)

[www.urban.cornell.edu/youthwork/ptools.learn](http://www.urban.cornell.edu/youthwork/ptools.learn)

[www.jff.org](http://www.jff.org)

[www.pltw.org/aindex.asp](http://www.pltw.org/aindex.asp)

[www.bigpicture.org](http://www.bigpicture.org)

[www.nyfa.org/educate\\_by\\_design/ed\\_assessment](http://www.nyfa.org/educate_by_design/ed_assessment)

[www.learn-canada.org/guideontheside](http://www.learn-canada.org/guideontheside)

[www.gsn.org](http://www.gsn.org)

[www.iste.org/research/roadahead/pbl](http://www.iste.org/research/roadahead/pbl)

[www.netc.org/presentatons/itsc/2000/pbl/index](http://www.netc.org/presentatons/itsc/2000/pbl/index)

[www.sreb.org/programs/hstw/publications](http://www.sreb.org/programs/hstw/publications)

[www.fsus.fus.edu/m2000/howto/capstone/FLHighcapstone](http://www.fsus.fus.edu/m2000/howto/capstone/FLHighcapstone)

[www.learningspace.org/instruct/lplan/library/entire](http://www.learningspace.org/instruct/lplan/library/entire)

<http://glef.org>

<http://schools.ncia.net/gorham/scholastic/seniorproject>

<http://pc65.frontier.osrhe.edu/hs/science/goals>