

INTERNA
Fulbright University Vietnam

Integrated Sciences
Capstone Handbook
As of January 2025

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1. General Information

Description

The capstone project in Integrated Sciences (IS) is an important step in students' development towards an independent and capable scientist. As part of this experience, students will practice first-hand the proper way to conduct an independent research project and communicate their results. The project takes the form of an individual written thesis, which includes the normal parts of a research paper (introduction, methods, results, discussion, conclusion, and literature references). It provides an opportunity for students to apply their knowledge and skills, deepen their understanding, and experience the complete process of modern scientific inquiry.

Learning outcomes

Students who successfully complete the capstone should be able to:

1. Write a clear and answerable research question.
2. Critically analyze literature related to the topic.
3. Apply scientific methods to make logical conclusions about the research question.
4. Communicate results accurately and concisely.

Mapping to Major Learning Outcomes

	MLO1	MLO2	MLO3	MLO4
CLO1	X		X	X
CLO2	X	X	X	
CLO3		X		X
CLO4			X	

Table 1. Mapping of capstone learning outcomes to IS major learning outcomes.

General process of doing a capstone:

Following the general guidelines of the Undergraduate Program at Fulbright University Vietnam (FUV), students usually submit their capstone application at the end of their 3rd year (or the last semester prior to their final year, in case of gap year/gap semester).

After approval, students will be assigned to a primary advisor and in some cases, there is also a secondary advisor. Students then proceed to Capstone I, followed by Capstone II in the following semester if and only if they pass Capstone I. At the end of Capstone II, students will have an oral defense and submit their written thesis for grading. The general process is illustrated in table 2, assuming a normal 4-year journey. More details are included in the following sections.

Time	Phase	Outputs
3 rd year, Spring semester	Application	Application form
4 th year, Fall semester	Capstone I	Varied, based on requirements from advisor(s).
4 th year, Spring semester	Capstone II	Presentation and written thesis

Table 2. Typical timeline of doing capstone projects in a 4-year study journey.

It is important to manage the workload. A research project in the natural sciences takes a lot of time and effort and does not always produce the expected results. This frequently leads to reruns of experiments, longer processing time, and other setbacks. It is highly recommended that students complete as many of their graduate requirements prior to doing the capstone as possible and have good time management while doing the capstone.

1.1. Roles of the capstone in the Integrated Sciences curriculum

The Integrated Sciences (IS) major is a single, comprehensive program comprising of different branches of natural science. Research is an important part of IS curriculum and the capstone is where students can bring together their skills and knowledge to execute a research project from proposal to presentation of results.

Per the academic policies of Fulbright University Vietnam (FUV), doing a capstone is not mandatory. In the IS major, students also have options to graduate with or without capstone. The capstone, including Capstone I and capstone II, are worth 8 academic credits. If students choose to not do capstone, they could replace it with 8 credits from IS courses, including at least 4 credits of 300-level course(s).

The capstone in IS major takes the form of a research thesis, conducted individually in the last year of the student's study at FUV. It is the culmination of your learning journey and a chance to showcase your mastery of the knowledge and skills required of an independent scientist. If you are going on to graduate school or a research & development (R&D) job, doing the capstone is highly recommended. Even if you follow another career path, the scientific methodology, critical thinking, time management, and communication skills you honed through this project are valuable assets. The capstone also illustrates the discipline and dedication that you put into your education.

1.2. Eligibility criteria

To be eligible to apply for the capstone in Integrated Sciences, you must meet the following criteria:

- Major GPA: 3.5
- or by approval by IS faculty.

Capstone applicants will be assessed by the major faculty based on the eligibility criteria and the quality of the proposal.

In general, the proposal should concisely convey the following:

- Research question
- Hypothesis
- Importance/relevance of the research question.
- Potential contribution of the projects to the research area.
Methodology to test hypothesis/answer research question. If the methodology relies primarily on wet lab, students are strongly encouraged to submit a list of required equipment and price.
- Timeline of the key step
- Anticipated results

More criteria for the proposal:

- The proposed project must be your original, individual work. Group projects and review-type projects are not eligible.
- Must be a new proposal for the purpose of the capstone. Students cannot re-use projects they did in previous years in place of the capstone.
- Proposal for which there is no available facilities might be turned down.

- Proposals for which there are no faculty with suitable expertise might be turned down. Students could find a secondary advisor at other institutions, more on this in section 1.3.

At the undergraduate level, we are not expecting ground breaking work from students but the projects must be original and cannot be an exact repeat of previous works either from the student or from published literature. This originality might take different forms such as different research subjects, different methodology or scopes...Students are strongly encouraged to discuss with IS faculty prior to submitting the capstone proposal.

1.3. Allocation of advisor process

As part of the application process, applicants will provide a first choice of primary and secondary advisor. It is not mandatory to have a secondary advisor. After the applications are approved, the IS faculty team will discuss the allocation of advising work based on 3 factors:

- Expertise of faculty
- Fair distribution of faculty workload
- Students' choices

In cases where we cannot fulfill all 3 criteria, the major coordinator would communicate with the students and faculty team to find an appropriate solution.

If students find opportunities to do capstone under the supervision of an instructor at another institution, they can register this instructor as the secondary advisor. The primary advisor is still an IS faculty member. More on this in section 1.8.

1.4. Advising process

In most cases, the primary advisor is your first point of contact for the capstone. The primary advisor should hold expertise relevant to your project and could review your progress and provide feedback. Given the broad nature of IS major, IS faculty might not have specific background in the exact topic of the capstone, but should have strong understanding of the theoretical and methodological approaches relevant to the project.

The secondary advisor can offer you additional feedback where necessary. In the case of external secondary advisor, who directly supervises your research at the external institution, you might actually discuss with this secondary advisor more often. However,

the primary advisor is still in charge of assessing your progress and thus should be informed about your capstone frequently.

You should plan to meet with your primary advisor at least twice a month, if not more often. You are expected to be proactive in organizing these meetings with your advisors and to follow up on the meetings' actionable items. The capstone places responsibility on you to be organized and to be responsible in regular communications and submission of work-in-progression to your primary advisor. It's best practice to establish the routine as early as the start of Capstone I. Frequent communications help to detect any problems earlier and keep you on track.

REMEMBER:

- Respect your advisor's official working hours
- Correspond professionally and courteously
- Use Fulbright email instead of social media platforms
- Respect your professor's time
- Be prepared at meetings (with materials, questions) and use your time efficiently
- You are responsible for setting up the meetings and follow up with actionable items

Proactiveness and responsibility are key to a productive work relationship. You should have the data, interpretations, questions, and potential solutions ready for discussion prior to the meetings. Remember the role of the advisors is to advise, not to do the thinking and working in your place.

Changes to the topic are possible but requires careful consideration and approval from the primary advisor. Note that:

- You cannot change the research question / subjects/ key methodology (for example doing computation study vs wet lab) without consulting your advisors and getting their approval.
- You should have clear understanding of what you are required to submit at certain stages of the project. If not, clarify with your advisor.

1.5. Capstone I

In Capstone I you will commence the research and refine your project proposal and plan, secure necessary resources, and do preliminary training or work. Research in

natural sciences requires significant preparation of samples, physical and/or computational facilities, and other consumables such as chemicals. The sooner you get this done the better. Follow the instructions of your advisors for the detailed outputs required for capstone I.

In general the process should be as follows.

Refine your project proposal and plan

The goal is to have a detailed research design, including experiment design, following general scientific method and specific methodologies in your chosen area. While this design differs based on the nature of the topic, but you should clearly define your research question, subject, scope, variables, hypothesis, and criteria for rejecting hypotheses. The output of this is usually a comprehensive bibliography and literature review focusing on background context.

On the practical side, you should list out the resources required for your project based on the detailed design: equipments, glassware, chemicals...etc. To do this you would need to perform a thorough literature review on your topic, paying special attention to the methods employed in previous studies and their pros and cons. After that, you could also consult with your advisors, IS faculty, and lab technicians to refine your list.

Doing all of this would help you establish a more accurate timeline for the project. Be conservative and always leave room for unexpected setbacks.

Securing resources

Based on your list above you should proceed to obtain the materials as soon as possible. If the subjects are physical samples that you need to collect from certain locations, consider your access to the place and the materials. As for equipment and chemicals, check with our lab technician about their availability. If they are not available, there are several directions to proceed:

- Students and faculty working together to find other institutions where FUV students could access the equipment.
- Students apply for funding from FUV or from other sources to fund the purchases of necessary chemicals/equipment. FUV has a student research fund which supports student's research projects, including capstone.

- If there is no viable ways to get access to the equipment, changes to the experimental design might be necessary. Students should discuss with their advisors.

Obtaining all these resources (funding, equipment, samples...etc) might necessitate significant paperwork. Examples include application of funding, disbursements of funds, lead time on purchases, getting approval from external institutions for excess to samples and/or equipment... It is crucial that you complete this process as soon as possible.

Preliminary training or experiments

It is common that the capstone requires techniques or practices that you have not done before. Capstone I would be the time to get started and hone your skills and expand your knowledge related to your actual experimental design. This might include handling samples and/or chemicals, running experiments, operating equipment, data analysis methods, computational modeling...etc.

While it is ideal to practice on your actual subjects, if the subjects/samples are difficult to obtain then you should train on similar samples as soon as possible.

If you know the methods already, you can start some preliminary steps of experimental design such as sample preparation, test run equipment, proof of concept studies.... Some problems only show up when you actually do the work, and the sooner you are aware of them the better.

The primary advisor would assess the deliverables from Capstone I and decide if the student passes. Only when a grade of "pass" is submitted by the primary advisor can the student be registered for Capstone II. If the students do not pass Capstone I, they should promptly plan their IS courses to fulfill the major requirements.

1.6. Capstone II

In Capstone II you will focus mostly on conducting experiments, collecting data, doing analysis, and interpreting results. After getting results from each experiment, you should interpret how the results contribute to testing the hypotheses and answering the research question. Often the results of experiments would lead to further testing, you should formulate your steps accordingly in consultation with your advisors. You will summarize the results of your project, from background investigation to final conclusions in a written thesis. In addition to this written submission, at the end of Capstone II, you will also be required to do an oral defense which is graded.

It is common in scientific research to not get your expected results. The main goal of the capstone, as stated in the learning outcomes, is for you to apply scientific methods to make rigorous conclusions about your topic. Your submission would be graded mainly based on this criterion. More on grading in section 1.10.

1.7. IRB Approval

If your project requires working with human subjects you will be responsible for obtaining approval from Fulbright University Vietnam's Institutional Review Board (IRB). The IRB approval process involves taking an online module to learn about IRB procedures, as well as submitting an application detailing your research design and plan for data collection and protection. Please be advised that the IRB procedure applies to all IS capstones involving human subjects.

You must receive approval **prior** to conducting the study. Failure to do so would result in delays to the project and/or its suspension. The approval process could take significant time (weeks or even months) and thus application should be done as soon as possible. You are advised to apply right after your application is accepted.

More information on the IRB approval process can be found at <https://fulbright.edu.vn/irb/>

1.8. Collaboration with other institutions

The IS major welcomes collaborations with other institutions for capstone projects. Students are encouraged to find opportunities to conduct research at other labs, both in Vietnam and internationally. The results can be used as part of the capstone project, providing **all** conditions below are met:

- Your capstone application is approved by IS faculty.
- You must obtain agreement from the external faculty to supervise your work at the external institution.
- You must clarify that the results of your work there would go towards your capstone.
- The project does not double count for any other graduation requirements aside from the capstone. That is, you cannot count it both as capstone and as another requirement such as additional academic credits or EL requirement.

As mentioned in section 1.3, your primary advisor would still be an IS faculty member. The external advisor will be your secondary advisor. This arrangement is to best facilitate administrative processes related to your capstone within FUV. While most of your work might be with the secondary advisor, you should still update your progress regularly to your primary advisor.

1.9. Academic Integrity

The capstone is subject to the regulations described in Fulbright University Vietnam's Code of Academic Integrity.

1.10. Grading process

Capstone I grade is decided by the primary advisor on pass/no pass basis.

As for capstone II, there are two graders for each written thesis:

- One grader must be the primary advisor
- If there is a secondary advisor, they would be the other grader. Under circumstances in which the secondary advisor cannot grade the thesis, another IS faculty member will be assigned.
- If there is not a secondary advisor, another IS faculty would be the second grader.

The final grade for the thesis is the average of the 2 graders.

The oral defense is graded by a panel of all IS faculty. See Appendix 1 and 2 for detail rubrics on both the thesis and presentation.

The total grade of the capstone is the sum of the thesis grade and oral defense grade. The primary advisor will communicate this result and any feedback from the graders to the student in writing. If there are any concerns about the grades, students should first meet with their primary advisor to discuss and clarify. If no agreement is made, the student could request one more grader (an IS faculty) to grade their submission, but cannot choose who the grader would be. The major coordinator will decide the 3rd grader after discussion with IS faculty team. The new grade would be the average of the 3 graders. Any further appeal after this would need to follow official UG program's process for grade appeal.

2. Capstones by Thesis guidelines

2.1. Word count regulations

The written thesis is documentation of the capstone project, in the form of a research paper. There is no word count limit, but the thesis is usually 25-40 pages on A4 size. This page count includes full bibliography and images with captions.

2.2. Style and formatting

The thesis should be typed with font size 12, suggested fonts are Calibri or Arial. The following parts should be included in order:

- Title page
- Committee signature page
- Copyright page (do NOT number or add anything to this page, only change the template* to your name)
- Acknowledgement page
- Abstract
- Table of contents
- Introduction
- Methods
- Results
- Discussion
- Conclusions
- References

*Templates for the first 3 pages can be found on the Capstone II Canvas page.

Following these general formatting guidelines, the details of the thesis and presentation should be worked out between the student and advisors.

2.3. Oral Defense requirements

The IS capstone oral defense is a public presentation where the student defends their thesis to a panel of experts (IS faculty and potential guest faculty) and other community members. The format is a PowerPoint presentation showing the key points of the capstone project. The audience includes IS faculty who serve as assessment committee, students, and other guests. The invitation will be sent out at least one week

before the actual defense date. The defending students can invite their friends and families too.

Total time allocation for the defense is 45 minutes per student, including:

- Presentation: 30 minutes
- Q&A: 15 minutes.

2.4. Evaluation Criteria

We will follow the grading rubric in Appendix 1 for the written thesis and Appendix 2 for the presentation.

Total score: 100 points

- Thesis: 85 points
- Presentation: 15 points

The final grade of the Capstone is on a Pass/No pass/Honor basis. Score breakdown:

- Honor: 90 to 100
- Pass: 65 to 89
- No pass: lower than 65

An honour pass capstone is the key requirement for graduating with Honor.

Appendix

1. Capstone thesis grading rubrics

General breakdown of total 85 points:

Item	Maximum points
Correct formatting	5
Introduction	15
Methods	15
Results	15
Discussion	15

Conclusion	5
References	5
Writing quality	10

Correct formatting:

Assessment	Evidence
Exceed standards - excellent (90-100%)	Have all required pages and sections
Meet standards - good (60--89%)	Have title page and the main sections: abstract, introduction, methods, results, discussion, conclusion, reference
Below standards - satisfactory (30-59%)	Having at least 5/7 of the main sections
Unacceptable - minimal (10-29%)	Having 3 or 4 of the main sections
Very poor or missing - fail (0%)	Vague formatting, unclear which part is which, or having less than 3 main sections

Introduction

Assessment	Evidence
Exceed standards - excellent (90-100%)	Literature review is complete; sufficient detail is provided to support assertions; assertions supported with evidence; includes original and relevant insight or analysis of topic. Clearly and concisely states the project's purpose in 1-2 sentences, which are engaging, and thought provoking.
Meet standards - good (60--89%)	Literature review is brief but complete; review focuses only on issues related to question; review is factually correct; assertions are clearly supported with evidence and appropriate use of logic.

	Clearly states the project's purpose in 1-2 sentences.
Below standards - satisfactory (30-59%)	Literature review is brief, with insufficient detail. Unrelated issues are introduced and/or minor errors in content. Assertions made without adequate support from evidence. States the project's purpose.
Unacceptable - minimal (10-29%)	Literature review is incomplete and includes excessive discussion of unrelated issues and/or significant errors in content. Assertions are made without adequate support from evidence. Purpose statement is Incomplete and/or unfocused.
Very poor or missing - fail (0%)	Literature review in thesis or project is incomplete and/or omits important research findings or theoretical positions. Purpose statement is missing

Methods

Assessment	Evidence
Exceed standards - excellent (90-100%)	All experiments are clearly described, and their rationales explained. Understandable by a general science reader. Description conveyed more than sufficient information to repeat the experiments. Experiments are incisive, rigorous, and powerful. They allowed the student to rigorously test the hypothesis and distinguish between all reasonable models. Both positive and negative results are interpretable.
Meet standards - good (60-89%)	An excellent summary of the experimental procedures. A knowledgeable reader could repeat the experiment with little difficulty. Experiments as designed provide strong support for (or falsify) the hypothesis. Most outcomes are interpretable

Below standards - satisfactory (30-59%)	<p>A very good description of the experimental procedures. A knowledgeable reader could understand and repeat the experiments with some effort. The rationale is not always clear. There are some instances where the author assumed knowledge on the part of the reader or used lab jargon.</p> <p>Experiments provide clear support for a hypothesis, but do not distinguish between all possible models. Several possible outcomes are not interpretable.</p>
Unacceptable - minimal (10-29%)	<p>A summary of the experiments. Occasionally, relevant experimental details are either inappropriate or missing. The experiment would be difficult to repeat. The author used a lot of lab jargon without explanation.</p> <p>Experiments have little power to distinguish among multiple possible models. They provide some support for a hypothesis, but multiple models are consistent with outcomes.</p>
Very poor or missing - fail (0%)	<p>A poor description of the experiments. It would be impossible for a knowledgeable reader to reconstruct the experiments.</p> <p>Experiments do not test the hypothesis. Experiments have insufficient power to distinguish different models.</p>

Results

Assessment	Evidence
Exceed standards - excellent (90-100%)	Results are presented in a logical, effective, and creative manner. Data are presented accurately and clearly and can be easily understood by a general science reader. Controls and their significance are clearly and thoroughly described. Conclusions are valid, insightful and not over-interpreted. Figures are publication quality, appropriately labeled, with comprehensive legends.
Meet standards - good (60--89%)	The data are described accurately and completely. Conclusions about data and controls are appropriate and not over-interpreted, but not particularly insightful or thoughtful. Figures

	are high quality, appropriately labeled, with comprehensive legends.
Below standards - satisfactory (30-59%)	Data is presented in an effective manner. Most of the conclusions about the data and controls are solid, but on rare occasions may lack accuracy. A general science reader might have minor difficulty following the conclusions. Some figures are lacking in quality and/or labeling; legends are adequate.
Unacceptable - minimal (10-29%)	The results section is a collection of data with little information to explain the significance. Some portions are unclear or missing. Data are presented in a confusing or incomplete fashion. The author may have misunderstood some of the results or failed to include or communicate them in an effective manner. Some conclusions may fit the data or are absent (under-interpreted). Some figures are missing or low quality, poorly labeled, with minimal legends.
Very poor or missing - fail (0%)	Little attention beyond a quick statement of the results. Missing context or controls. The author did not understand the data or failed to draw conclusions. Figures are missing, poor quality, lack labels, with minimal legends.

Discussion

Assessment	Evidence
Exceed standards - excellent (90-100%)	The author provided an in-depth analysis of the results and demonstrated exceptional insight into the broader implications. Conclusions follow logically from evidence presented. The author was thinking about experiments, results and future directions at the level of a professional in the field.
Meet standards - good (60--89%)	The author provided an excellent critical analysis of the data, including ideas that went significantly beyond the simplest interpretation. Conclusions follow logically from evidence presented.

	The thesis contained several good ideas for future work. The ideas build upon the student's findings, incorporate additional scholarship and are worthwhile suggestions for future research.
Below standards - satisfactory (30-59%)	The author provided a very good discussion of the results but stayed mostly within the bounds of current thinking. Conclusions overreach evidence presented. The thesis provided one or two good ideas for future work. These are relevant to the field but may be only incremental in nature.
Unacceptable - minimal (10-29%)	The author provided a limited analysis of the data; however, the author mostly reiterated the results without further expansion. Conclusions weakly justified by evidence. The author made a very limited attempt to suggest future experiments or directions.
Very poor or missing - fail (0%)	The author failed to provide an interpretation and simply reiterated the results. Conclusions inconsistent with evidence presented. The author made an unsuccessful attempt or failed to explain future directions.

Conclusions

Assessment	Evidence
Exceed standards - excellent (90-100%)	The conclusion is engaging and finalizing the outcomes of the research's hypothesis/purpose.
Meet standards - good (60--89%)	The conclusion provides an outcome of the hypothesis/purpose.
Below standards - satisfactory (30-59%)	The conclusion does not adequately answer the research hypothesis/ purpose.
Unacceptable - minimal (10-29%)	Conclusion is incomplete and/or unfocused.

Very poor or missing - fail (0%)	Missing conclusion.
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References

Assessment	Evidence
Exceed standards - excellent (90-100%)	Citation is done in a consistent fashion. Synthesis is used instead of direct quotes/copy. The background material has been thoroughly researched and properly referenced. It is an authoritative assessment of the relevant primary literature. The author has provided the reader with the relevant information to understand the significance of the problem at hand.
Meet standards - good (60--89%)	Citation is done in a consistent fashion. Synthesis/ paraphrasing is used instead of direct quotes/copy. Shows careful scholarship and frequently cited the primary literature. The author has mastered most of the relevant material and has integrated it well to set up the thesis research.
Below standards - satisfactory (30-59%)	Citation is done in a consistent fashion. Direct quotes/copies are used frequently. The author accurately presented findings from the literature but relied heavily on reviews rather than primary sources. The significance of the thesis research may not be immediately clear to an outside reader or may be difficult to extract because of excessive detail.
Unacceptable - minimal (10-29%)	Missing some citation. No synthesizing/ paraphrasing of cited materials. The author has mastered only a part of the relevant literature. Significant parts of the thesis are not supported by cited material. References are almost exclusively reviews and secondary sources. Important material has been neglected. Not enough information has been provided to understand the thesis research question.

Very poor or missing - fail (0%)	<p>Missed a lot of references.</p> <p>The author knows or understands little of the relevant literature or has made major errors in interpretation and/or citation.</p>
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Writing quality

Assessment	Evidence
Exceed standards - excellent (90-100%)	<p>The thesis is a pleasure to read. It is clear and concise. Needs no editing and reads as though it was written by a professional in the field.</p> <p>Author demonstrates logical and subtle sequencing of ideas through well-developed paragraphs; transitions are used to enhance organization.</p>
Meet standards - good (60--89%)	<p>The thesis is easy to read, needs only minor editing. Represents excellence in student writing and appears to be the end-product of multiple drafts.</p> <p>Paragraph development present but not perfected.</p>
Below standards - satisfactory (30-59%)	<p>The thesis is well written but requires revisions and editing. Usually clear, but some sections need to be re-read to get at the meaning. Reads like a good proof-read draft.</p> <p>Logical organization of ideas not fully developed.</p>
Unacceptable - minimal (10-29%)	<p>The thesis is poorly written. Significant portions are sloppy or unclear. There are many grammatical errors and ambiguities. Reads like a rough draft.</p> <p>No evidence of structure or organization.</p>
Very poor or missing - fail (0%)	<p>The thesis is difficult to read. Most sections are unclear, ungrammatical, and convoluted. Unquestionably a rushed draft that has not been proof-read.</p>

2. Oral defense grading rubrics

General breakdown of the total 15 points:

Items	Maximum points
Language use and delivery	3
Organization and Preparation	4
Contents	4
Questions and answers	4

Language use and delivery

Assessment	Evidence
Exceeds Standard (full points)	<p>Effectively uses eye contact.</p> <p>Speaks clearly, effectively, and confidently using suitable volume and pace.</p> <p>Fully engages the audience.</p> <p>Dresses appropriately,</p> <p>Selects rich and varied words for context and uses correct grammar.</p>
Meets Standard (full points minus 1)	<p>Maintains eye contact.</p> <p>Speaks clearly and uses suitable volume and pace.</p> <p>Take steps to engage the audience.</p> <p>Dresses appropriately.</p> <p>Selects words appropriate for context and uses correct grammar.</p>
Nearly Meets Standards (full points minus 2)	<p>Some eye contact, but not maintained.</p> <p>Speaks clearly and unclearly in different portions.</p> <p>Occasionally engages the audience.</p>

	<p>Dresses inappropriately.</p> <p>Selects words inappropriate for context; uses incorrect grammar.</p>
Does Not Meet Standard (zero or full points minus 3)	<p>Uses eye contact ineffectively.</p> <p>Fails to speak clearly and audibly and uses unsuitable pace.</p> <p>Does not engage the audience.</p> <p>Dresses inappropriately.</p> <p>Selects words inappropriate for context; uses incorrect grammar.</p>

Organization and Preparation

Assessment	Evidence
Exceeds Standard (full points)	<p>Introduces the topic clearly and creatively.</p> <p>Maintains clear focus on the topic.</p> <p>Effectively includes smooth transitions to connect key points.</p> <p>Ends with logical, effective and relevant conclusion.</p>
Meets Standard (full points minus 1)	<p>Introduces the topic clearly.</p> <p>Maintains focus on the topic.</p> <p>Include transitions to connect key points.</p> <p>Ends with coherent conclusion based on evidence.</p>
Nearly Meets Standards (full points minus 2)	<p>Introduces the topic.</p> <p>Somewhat maintains focus on the topic.</p> <p>Includes some transitions to connect key points.</p> <p>Ends with a conclusion based on evidence.</p>
Does Not Meet Standard (zero or full points minus 3)	<p>Does not clearly introduce the topic.</p> <p>Does not establish or maintain focus on the topic.</p> <p>Uses ineffective transitions that rarely connect points.</p> <p>Ends without a conclusion.</p>

Contents

Assessment	Evidence
Exceeds Standard (full points)	<p>Include all important contents from the capstone.</p> <p>Clearly defines the topic of the capstone and its significance. Provides evidence of extensive and valid research with multiple and varied sources Supports thesis and key findings with an analysis of relevant and accurate evidence.</p> <p>Provides evidence of complex problem solving and learning stretch.</p> <p>Combines and evaluates existing ideas to form new insights.</p>
Meets Standard (full points minus 1)	<p>Include all important contents from the capstone.</p> <p>Clearly defines the topic of the capstone.</p> <p>Supports the thesis and key findings with evidence. Presents evidence of valid research with multiple sources.</p> <p>Provides evidence of problem solving and learning stretch.</p> <p>Combines existing ideas to form new insights.</p>
Nearly Meets Standards (full points minus 2)	<p>Include most important contents from the capstone.</p> <p>Defines the topic or thesis.</p> <p>Presents evidence of research with sources.</p> <p>Supports the thesis with evidence.</p> <p>Provides some evidence of problem solving and learning stretch.</p> <p>Combines existing ideas.</p>
Does Not Meet Standard (zero or full points minus 3)	<p>Missing important points of the capstone.</p> <p>Does not clearly define the topic or thesis.</p> <p>Does not support the thesis with evidence.</p> <p>Presents little or no evidence of valid research.</p> <p>Shows little evidence of problem solving and learning stretch.</p> <p>Shows little evidence of the combination of ideas.</p>

Questions and answers

Assessment	Evidence
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Exceeds Standard (full points)	Demonstrates extensive knowledge of the topic by responding confidently, accurately, and appropriately to all audience questions and feedback.
Meets Standard (full points minus 1)	Demonstrates knowledge of the topic by responding accurately and appropriately to most questions and feedback.
Nearly Meets Standards (full points minus 2)	Demonstrates some knowledge of the topic by responding accurately and appropriately to questions and feedback.
Does Not Meet Standard (zero or full points minus 3)	Demonstrates incomplete knowledge of the topic by responding inaccurately and inappropriately to questions and feedback.