Your competence will be assessed as you complete the capstone project for this course. This course of study may take up to 16 weeks to complete.

**Introduction**

**Overview**

Would you say you know more today about the field of health informatics now than you did when you began your program at Western Governors University? Hopefully you will answer “yes” to that question. The capstone project is an opportunity for you to create a report, project, or presentation focusing specifically on a topic area you found interesting in your studies of the professional field of health informatics and information management (HIIM). It may be a project that you can use to support a challenge at work. It may be an area you wish to learn more about or develop into an article to submit for publication. All of the authors whose books you read over the past few years started out just like you -- they were students at some point, too. It was their excitement and involvement in the profession that took them to another level. That could be you!

So where do you start? You can select different ways to approach this project, such as researching or working on what you know and love, or looking into what you do not know and have a curiosity for. If you are excited and interested in an area, it will be enjoyable to research and spend hours reading and writing about it for an assignment of this scope. If you are curious about a topic and want to know more about it, you can easily get caught up in the investigation needed to find out more about this topic and in becoming better educated about it. Either way, you cannot lose.

**Outcomes and Evaluation**

There is 1 competency covered by this course of study.

- **Competency 981.1.1: Capstone**
  
  The graduate integrates and synthesizes competencies from across the degree program and thereby demonstrates the ability to participate in and contribute value to the chosen professional field.

You will complete the following assessments as you work through the course of study. The outcome of this course of study is the completion of the capstone project. You will submit it in Taskstream, where you can find all of the components, listed as tasks, to complete. Those tasks can help guide your writing and research for the capstone. Consult with the capstone course instructor along the way if you need guidance or assistance.

**Performance Assessment**

You will complete your performance assessment in Taskstream:

For details about this student project, see the "Assessment" tab in this course.
Preparing for Success

By this time, you have developed effective study skills and have the ability to manage your time efficiently. Plan enough time for a project of this scope. Your research, reading, writing, and revisions will take many hours. Plan more time, rather than less; this helps alleviate stress.

Obtain Learning Resources

You will want to gather the learning resources and study notes you have used in previous courses of study to help prepare you for working on your project.

Gather Your Materials

You do not need to purchase any specific texts for this course of study, but you may wish to utilize the resources you have used throughout the BSHI program as sources for information. Also, consider professional websites that have information to support your chosen topic. Sit down and plan out your resources, writing down ideas to yourself. You will be surprised about what can be forgotten while in the throes of writing deadlines. Preparing to write may take time, but it is time well spent.

Consider borrowing this book from a library or using online resources to ensure you are using correct APA style for your project report:

  - Softcover ISBN: 9781433805615
  - Hardcover ISBN: 9781433805592
  - Spiral-Bound ISBN: 9781433805622

Other Learning Resources

You will use the following learning resource for this course of study.

APA Formatting with Purdue OWL

Successful completion of this course of study requires an understanding and application of proper APA formatting. Please review the Purdue OWL APA Formatting and Style Guide for formatting guidelines and solutions for a range of citation types.

The Capstone Archives

Western Governors University has established the Capstone Archive for students to examine capstone projects to aid them in preparation of this culminating degree task. WGU has taken great care to ensure that safeguards are in place to secure the academic authenticity and prohibit the exposure of sensitive information within these examples, and you must adhere to WGU’s code of conduct to not copy others’ work. These two Archives will be of most value to you in developing your capstone: the Model Capstone Archive and the Capstone Excellence Archive.

The Model Capstone Archive contains a few solid examples of student work in each of the
current capstone models upon which students can pattern their work. Besides final documents, it often contains preliminary exhibits such as project plans, proposals, permission forms, contextual material, and so forth.

The Capstone Excellence Archive contains a growing number of capstones from each College that were selected as exemplars of excellence in various degree areas because they represent top work in their expression of ingenuity, exhibition of mastery, or creation of exceptional value to others. These exemplars only contain final documents, mainly of current capstone models. If you would like to have your capstone selected for this award please speak with your Capstone Course Instructor.

**Pacing Guide**

The pacing guide suggests a weekly structure to pace your completion of learning activities. It is provided as a suggestion and does not represent a mandatory schedule. Follow the pacing guide carefully to complete the course in the suggested timeframe.

**Week Topic**

**Week 1**

- Introduction
- Preparing for Success

**Week 2**

- Beginning the Capstone
- Research the Topic

**Weeks 3–4**

- Write the Capstone

**Week 5**

- Finishing Touches

**Week 6**

- Final Review and Submission
- Feedback

*Note: This pacing guide does not replace the course. Please continue to refer to the course for a comprehensive list of the resources and activities.*

**Additional Preparation**

There are many different learning tools available to you within your course of study in addition to the learning resources already discussed. Take the time to familiarize yourself with them and
determine how best to fit them into your learning process.

**Course Instructor Assistance**

Course instructors are available to help you. Their job is to aid understanding in areas where you need to improve and to guide you to learning resources. Request their help as needed when preparing for assessments.

Course instructors cannot provide reviews of entire assessments. If you fail assessment attempts, review the provided feedback first, then ask the course instructor specific questions about what you can do to meet the competency standard. Request course instructor assistance as necessary in preparing for second attempts at objective assessments or performance task revisions. Instructors cannot guarantee you pass as they do not evaluate assessments; however, they can provide the assistance and advice necessary to help you succeed.

**Other Preparations: Accessing the Capstone Assessment**

For this capstone project, the best way for you to see the expectations of the course of study is to go to Taskstream and see the project requirements. You may use the tasks as your basic template or guide, but you need to read through this course of study in order to understand the expectations of each task. Knowing what tasks are required in this capstone before you begin working on the project will help you focus your time and energy efficiently.

The capstone is a performance assessment that is submitted in Taskstream, so you must first request access to the assessment in your Degree Plan.

Follow these directions to access your performance assessments and to access the templates that can be used for your Capstone project.

As the evaluation of a capstone will take longer than the assessment evaluations you are familiar with, ask your course instructor for an estimate of the length of this process.

**Beginning the Capstone Project**

Health informatics and information management (HIIM) professionals are naturals for this type of project. If you did not enjoy working with information, you would not have chosen this profession. If you are already working in healthcare, you may have experience in researching information and supporting others by gathering data for large-scale projects.

**Human Subjects Protection**

Many of the capstone projects at WGU include data-gathering and analysis involving human research subjects. The protection of the rights and privacy of human subjects involved in research activities is mandated by federal law. The federal government has established regulations to help ensure that the research design and investigative methods follow strict ethical procedures and provide appropriate protection of human subjects. These regulations require that all research involving human subjects must be reviewed by the Western Governors University Institutional Review Board (IRB).

However, in some cases human subject research may be exempt from IRB review, especially
those capstone projects directed toward program improvement within a specific organization. Making this determination is a five-step process.

1. Study the Human Subject’s FAQ.
2. Complete the brief Human Subjects FAQ quiz.
3. Have the system email you a copy of the completed quiz.
4. Upload the quiz into Taskstream as an attachment in your first capstone task.
5. Contact your Course Instructor to discuss next steps if this instruction or task feedback indicate that your capstone project requires further human subjects’ protection review.

Choosing Your Capstone Topic

For a large-scale writing project such as this, you have many different options. You may be involved with a project at work, which you may use as the topic for your capstone project. You may have a topic of special interest and wish to explore it further, possibly developing a report suitable for publication. Or you may have learned about new initiatives taking place in the profession and wish to further explore these activities or changes. Discuss your ideas with your course instructor, who will help you to focus your ideas and support you through project completion.

The following are several ideas for topics related to HIIM:

- compare the structures of the health information management departments of several facilities
- develop a plan to convert an organization from a paper to an electronic health record
- create a documentation improvement plan
- conduct an in-depth case-mix analysis of an organization
- analyze information systems in a healthcare organization
- develop a plan to obtain an approved tumor registry through the American College of Surgeons
- conduct a workflow analysis of a specific department or unit, with recommendations for improvement
- develop a request for proposal for outsourcing a function of the health information management department
- assess the quality improvement program or compliance program of an organization
- develop an interdepartmental health informatics project
- create a program to improve the morale of a department
- create a policy and procedure document for a specific area

These are ideas to get your creative juices flowing. Think about your own workplace or topics you have studied during the BSHI program. Remember, choose a topic of interest to you; you will be spending a good deal of time with it.

Components of the Capstone Project

Consider your audience or readers as you are developing your capstone project. Those who read your work may know little about your topic, so you need to be clear as you explain concepts and ideas. In other cases, your audience may be other HIIM professionals (e.g., if your work is published or presented at a workshop or meeting); you want it to be of the quality
and depth that will engage them in your chosen topic.

**Review Capstone Requirements**

There are several elements required in the capstone. The following are suggested components with brief explanations. Although these are listed in a linear fashion, you may move back and forth in developing the elements as you are writing and reading. For example, although the abstract is listed at the end, meaning you would create it once your project is completed, it would be placed in the front of your capstone project. The literature review is an element you need to spend more time on at the beginning in order to determine how large or small your project will be or if you need to adjust your topic selection.

**Introduction**

In this section you present your topic to the reader. Explain why you selected this topic, and discuss why it is important to the field of health informatics and health information management.

**Components of the Problem**

If there is a specific problem area your capstone is addressing, explain the problem, provide background information, discuss possible causes of the problem, and explain why research into the topic is needed. If your capstone is project-related, explain the issues behind the project (all projects have a purpose or problem they are addressing) and why the organization is supporting it.

**Literature Review**

The purpose of the literature review is to present your audience with a strong knowledge base to support your project. For you, the literature review will provide a comprehensive understanding of your chosen topic. You need a strong foundation of information, based on the contributions of experts in the field, to support your ideas or how you are approaching solutions to problems. If you are unsure about how this process works, you may refer to one of your texts for complete information on the literature review and its process. You used this text in courses of study in the BSHI standard path:


*Note: This text is not required in order for you to perform your literature review. It is suggested as helpful resource. You may find other resources equally beneficial; this is merely a suggestion, as this text was used in your course of study for BFT1, Healthcare Statistics and Research.*

**Project Description**

If this is a project-based capstone, you would discuss the environment in which the project is being implemented, describe the roles of participants, and discuss the importance of the project to the setting. If you are writing a report on a specific topic, you would fully describe your topic (as if your reader knew nothing about the topic).

**Implementation**
If this is a project-based capstone, you would describe how the project was implemented, any unanticipated events (positive or negative), how they impacted the project, and how problems were resolved. If you are writing a report on a specific topic, this section is where you may describe how this topic is impacting the HIIM environment today.

**Results**
If this is a project-based capstone, describe what happened in the environment as a result of the project. Were the goals met? How will this project impact the environment? If you are writing a report about the topic, evaluate the impact of the topic on the HIIM environment. In this section you would also describe (if project based) changes you would have made, in retrospect, in the project design. Recommend any ideas for future development of this project area. If you are writing about a specific topic, recommend areas for future research or work to be done in this area.

**Bibliography or Resource List**
Follow APA format to list all the sources you used in the literature review (e.g., books, articles, interviews).

**Appendices**
These are supporting documents to your capstone, such as surveys, questionnaires, and informed consent documents (e.g., permission to use the words of someone you interviewed).

**Abstract**
This is a summary of the capstone project; think of it as a snapshot that is self-contained and concise. It explains the capstone rationale, the environment, the methods, the results, and your evaluation of future research or work needed.

**Course Instructor Meeting: Required Elements of Capstone**
If you have questions about any of the elements required in the capstone project, set up a teleconference with your course instructor and review any questions before you begin your work. Spend your valuable time wisely, and seek out any assistance early in the process.

**Research the Topic**
Be creative with your capstone project. You have selected a topic of great interest to you, and now it is time to seek out information from the experts. You may interview professionals in the field, which can be done in person or via teleconference or e-mail. You will review professional journals and magazines and seek out professional websites, book chapters, conference papers, and government documents. You live in an information-explosive world today, so the possibilities are endless. Do not be afraid to e-mail the "movers and shakers" in the professional field. Most of them are eager to share their expertise or ideas with students. For those of you who have seen a Barbara Walters interview, you know one of the secrets of her success was asking celebrities to talk about a topic near and dear to them. When you are reading journal articles, notice if the author's contact information is available; sometimes the story behind the story can boost the excitement level for you.

**Gathering Information: Purpose and Process**
The information you select will help you to write your report. A good literature review covers the current knowledge base on your topic and also helps you identify gaps in what is known today, which helps you to identify needs for future research. Think of your literature review as detective work or data mining -- you are looking for the gold nuggets to make your capstone project shine. Do not rush through it; enjoy it as a process of learning more about your chosen topic. Your project may possibly produce a product beyond the BSHI program, if you decide to publish or if your involvement in a project leads to a new job opportunity. Reviewing your source documents is a process of identifying, obtaining, reading, analyzing, summarizing, and synthesizing. Expect to read more than you will use, but get into the habit of categorizing and keeping track of everything you locate on your topic. Early and consistent organization is one of the keys to writing success.

Review How to Review

You already have valuable resources to help you perform your literature review. Remember to go in to Taskstream and see the expected parameters for the literature review.

The literature review is not only about locating and reading, but about organizing and categorizing your piece of information so that when you are ready to write, you can easily find the information you need.

What Format Should You Use?

Unless your capstone project is work-related, you may not know what type of format to use for writing your capstone until you are immersed in your literature review. The following are several ideas on how you may structure your project; however, the list is not all inclusive. Remember, be creative.

Hypothetical Project
There may be a situation at your workplace that needs "fixing"; you may not have the ability to implement an actual project, but can suggest ideas on how it could be done. Write up your project idea; it may result in an activity you can present to your supervisor in the future.

Case Studies
You may find a significant amount of information on your topic related to actual places, people, or processes. You may do a comparison of cases, similar to a meta-analysis but without statistical data, and describe, compare, and analyze the similarities and differences in these situations.

Best Practices
Compare the processes used in a variety of organizations, illustrating what qualities make these facilities leaders in the HIIM field. Discuss how these ideas might be expanded into other areas or implemented in your organization.

Educational Article
Develop a mini training session for a group of new HIIM professionals or for students based on your topic. Design an actual list of topics you would cover and discuss or illustrate how you would present it; your idea could potentially be used in an academic program or for patient
education.

**Theory Building Project**
Perhaps you have an idea, based on your experiences and your reading, and you have developed a theory on how the HIIM profession would benefit from examining your issue in a certain way. This is a theory for improvement. Sell it to your peers.

**Course Instructor Meeting: Process**

If you need to brainstorm your ideas or talk through the process of this project, use the message board in the course of study, the Health Informatics Learning Community, or contact your course instructor. Sometimes you just need to hear yourself talk out an idea, or write it down to explain it. The process of writing is just that -- a process -- and sometimes writing it out helps you synthesize your ideas. Need ideas? Let others help you through the process.

**Write the Capstone**

Writing is a process, and one of the best ways to get started is to just do it. Prepare for many revisions and rewrites; good writers know that putting ideas down on paper helps the process of analyzing the data and information. As your writing proceeds through drafts, you will find yourself seeking out missing information in order to develop the full picture of all you want to discuss. The assessment for the capstone project contains guidelines to help you organize your work. The requirements of the project will be discussed in the order they are found in your completed document, but you may decide to write them out of sequence, depending on your preferences.

**Introduction and Research Area**

When you write your introductory paragraphs, think about providing your readers with a broad overview of your chosen topic or project, explaining why you chose it and why it is important to the field of health informatics. You will want to explain if there is a problem or issue your project or research is addressing (if that is the focus of your capstone), or fully explain the background information of your topic. Write as if your readers know nothing about the topic and you are educating them, using your sources to support your descriptions or the background. Tell your readers why you decided to focus on this topic.

**Draft Your Introduction and Background Ideas**

Begin writing your draft of this section; remember, it is a rough draft. Your writing will improve each time you make revisions. It is important to begin simply getting something down on paper. If you have questions, contact your course instructor. See Taskstream for more detailed information on content you should include in your introductory statements and outline or background of your chosen topic.

**Description**

Your descriptive section of the capstone is a continuation of the introduction and the explanation of your topic selection. If you are working on a project or performing research, describe the setting; discuss the roles of any participants in the project; tell your readers why this project is important to this setting. If you are writing about a specific topic, explain more about this topic. For example, if you are writing about the changes occurring with the use of ICD-10 on a national level, describe what ICD-10 is, how it differs from ICD-9, and why this mandate has occurred.
Think of the description as a foundation for your next sections.

**Draft Your Descriptive Ideas**

Get your thoughts down on paper, in a draft form. Write first without editing; just get your descriptive ideas down. Let the draft sit for a day or two, and then return to it and edit it. When you read it again you will find you have other ideas to add and some to delete. Writing is a process. Writing well takes time. See Taskstream for more detailed information on content you should include when describing the environment and people involved in your chosen topic.

**Implementation**

If you are writing about a project, this section is your opportunity to tell your readers how the project was developed, any problems you encountered, why they occurred, how they were resolved, and any unanticipated events during the project implementation. If you are writing about a specific topic, this is the main section of your capstone and gives you the opportunity to fully explore the topic and how it is impacting the world of HIIM.

**Draft Your Section on Implementation**

This section will take more time than others. Get your ideas down on paper in a rough draft, pulling in your resources and keeping track of your sources in your running bibliography. Build your resource list as you locate information. Let your written work simmer for a day or two, and then return to it for editing and rewriting. This is the section of your capstone that you either explain a project implementation or fully expand on your chosen topic. This is the "meaty" section of the capstone. Take your time with it. Ask your Instructor for help; you want your readers to fully understand your topic.

If you are stuck or need help, reach out to others for a different perspective. See Taskstream for more detailed information on the content you will include when fully expanding your information, using your resources, on your chosen topic.

**Results and Future Research Ideas**

Here is your opportunity to offer your opinions on this topic or project implementation. You may do a recap of the information you have already provided: the general purpose of the project, summary of the implementation, successes to brag about, and challenges encountered. Retrospectively, tell your readers what you would have done differently and why. If your capstone is a specific topic or content area, explain what you learned about this topic, and, based on that, tell your readers if more research is needed in this area and why. Think of this section of the capstone as a wrap-up to your paper; make sure you include everything you need to say to bring your topic to a strong close.

**Draft Your Ideas on Your Topic or Project**

Think of this as your opportunity to make an editorial comment about your findings as you researched this topic or about the results of your project. Use the same writing technique if it works for you (i.e., write a rough draft and return to it to revise and refine it). Once again, see Taskstream for more complete details on what to include in this section.

**Finishing Touches**

Your capstone project is nearly completed! This last component is the "detail" work. The
The reference list tells your reader what your sources were and where they can be located. When you are enjoying a book and the author makes references to the sources used or quotes them in the body of the work, you may go to the back of the book to see where the quote originated, or you may use those sources for future reading. The same concept applies for your reference list. Also, because you are using the words of others to write your capstone, you need to credit those authors or researchers.

The appendices may be needed if you have documents to support your capstone. For example, if you performed some type of survey, you should include the survey instrument. If you used data from reports or other sources, you may wish to include those supporting documents. Think about what has been helpful to you, particularly when reading texts, in appendices to text chapters. Use those ideas for your capstone.

Finally, you need to write an abstract. You are familiar with abstracts from the many journal articles you may have gathered for the capstone; the abstract is a brief summary, a snapshot of the information in your capstone. Shrinking your abstract down to 200 words will be challenging.

**Reference List and Appendices**

If you were keeping a running bibliography, compiling your reference list should not be too difficult. Most importantly, refer to the [Purdue OWL APA Formatting and Style Guide](https://owl.apa.org/styleguide/) or the WGU Writing Center for the correct APA style format.

When you include your appendices, include documents to support the capstone. Think as your readers might; this is where your course instructor can assist you. If you have referred to documents in the body of the capstone, definitely include those documents. If there is a document that could help enhance your readers’ understanding of a concept, include it. Also, remember to include any informed consent documents.

**Writing the Reference List and Appendices**

Follow the directions in Taskstream when developing the reference list and appendices. Take your time and give attention to detail.

Be sure to check the [Purdue OWL APA Formatting and Style Guide](https://owl.apa.org/styleguide/) or the WGU Writing Center frequently, and consult your capstone course instructor with any questions.

**Abstract**

When writing your abstract, think of what you look for in an abstract for a journal article. You look for the salient points that tell you if the article meets your informational needs. The abstract should stand alone and include the reason you selected the topic or engaged in the project, a brief description of the environment and participants, your data-gathering methods, a summary of your results, and your proposed next steps for further research into this area.

**Drafting the Abstract**

Creating an abstract may be challenging and require several revisions. Take heart! If you have an opportunity to write a grant proposal in the future, this assignment is good preparation. The abstract is an important component of a grant proposal, and a well-written abstract can get the attention of reviewers. Think of this assignment as a warm-up exercise for future success in
grant writing.

**Final Review and Submission**

Congratulations! You have completed the capstone project, which is no small feat. How does writing a capstone apply to your future work? Here are several ideas:

- The ability to write technically, proficiently, and concisely is a skill that all professionals can improve. HIIM professionals need strong writing skills for developing reports, grant proposals, responses to accrediting agencies, and other administrative documents.
- Researching information and compiling data for reports is part of the HIIM professional’s daily work. It takes practiced skill to learn how to data mine, and this skill is valuable to any healthcare organization. Learning how to select specific information to support the project work is another learned skill.
- Willingness to accept constructive feedback on your written work, adapting work, and adopting changes to improve its quality are attributes of a professional. The ability to work well on teams or with small groups will be a component of your daily work. This capstone project gave you an opportunity to receive feedback and collaborate with a purpose and direction.
- You may wish to refine this capstone project (or submit it as is) for publication or presentation. Consider submitting to professional journals, making presentations at workshops or continuing education venues or conferences, or sharing your work in your workplace. These are all potential opportunities to promote yourself professionally and grow the body of knowledge in HIIM.

**Capstone**

Do one more careful read-through of your capstone, or ask someone to read through it for you. Then submit your finalized work to Taskstream, following the instructions.

**Accessing Performance Assessment**

If you have not already done so, submit the following tasks to Taskstream:

- CWHJ: CWHJ Task 1
- CWHJ: CWHJ Task 2

For directions on how to receive access to performance assessments, see the "Accessing Performance Assessments" page.