

Practicum Proposal

Student Name	Student Name
Faculty Practicum Advisor	Dr. Susan Fenton

1. Organization:

Organization	ABC Hospital
Address	123 Fannin
City, State, zip	Houston, TX 11111

2. Practicum Preceptor:

Name	Dr. Charles Steve
Title/role	Chief Informatics Officer (CIO)
Address	123 Fannin
Telephone	(123)456-7890
Email:	abc@hospital.edu

3. Organizational site description

General description of setting (i.e., Insurance Company, Integrated healthcare delivery system, FQHC, Public Health Agency, Faculty Research Lab, etc.)

Integrated healthcare delivery system

4. Capstone Project Overview:

- A. Provide a high-level description of what you will do for your project.
- B. Include which SBMI courses you expect to apply. For example, if the deliverable is a dashboard, cite BMI 6340 Health Information Visualization; if you are developing an algorithm, cite BMI 5007 Methods in Health Data Science; if you are performing workflow analysis, cite BMI 5329 – Workflow Redesign, etc.

The purpose of this practicum project is to design and develop an interactive clinical dashboard to monitor hospital readmission rates for chronic disease populations. The project will involve extracting and transforming EHR data, identifying key performance indicators (KPIs), and visualizing trends to support care coordination teams in reducing preventable readmissions.

This project will apply concepts from:

- **BMI 6340 – Health Information Visualization** (dashboard development and data visualization)
- **BMI 5007 – Methods in Health Data Science** (data extraction, cleaning, and analysis)
- **BMI 5329 – Workflow Redesign** (integration into clinical workflows)

5. Expected Project Outcomes:

1. Utilize the Bloom's Taxonomy Action Verb List in Appendix A to identify a minimum of two project learning outcomes. These should be at a level III (3) or above.
2. Briefly describe (50 words or less) how your project meets the knowledge, skills and attitudes of AMIA domain F7: Social, Behavioral, and Information Science Applied to Health. See Appendix A for information related to AMIA domain F7.
3. List your project-specific deliverables: (e.g., presentations, workflow diagrams, dashboards/analytics, external publication)

1. **Analyze** trends in hospital readmissions using EHR-derived datasets to identify high-risk populations.
2. **Design** and **develop** an interactive dashboard that supports clinical decision-making for care teams.

This project integrates data science, visualization, and clinical workflow redesign to develop a health informatics solution that improves patient outcomes. It applies social, behavioral, and information science principles to support healthcare decision-making and population health management.

- Interactive dashboard (Power BI or Tableau)
- Data dictionary and data model documentation
- Workflow integration diagram
- Final practicum presentation
- Written report summarizing findings and recommendations

6. Dependencies/anticipated challenges:

What are things that could impact your project? For example, if you are integrating data do you already have access to all of the data sources or not, if not that is a dependency.

- Access to EHR data and appropriate permissions
- Data quality and completeness issues
- Integration of the dashboard into existing clinical workflows
- Time constraints for stakeholder feedback and iterative development

Appendix A

AMIA Domain F7 Social, Behavioral, and Information Science and Technology Applied to Health

The knowledge, skills, and attitudes to apply the diverse foundational concepts and facets in order to develop integrative approaches to the design, implementation, and evaluation of health informatics solutions.

Longer Description: Social, Behavioral, and Information Science and Technology Applied to Health refers to the integration of social, business, human factors, behavioral, and information sciences and technology on the design, implementation, and evaluation of health informatics solutions. The application of health technologies and clinical and/or business processes can impact individual and community health outcomes at numerous levels from molecular and biological systems, to healthcare and organizational protocols, to social systems and public health.

Revised Bloom's Taxonomy Action Verbs

Anderson, L. W., & Krathwohl, D. R. (2001). A taxonomy for learning, teaching, and assessing, Abridged Edition. Boston, MA: Allyn and Bacon.

Definitions	I. Remembering	II. Understanding	III. Applying	IV. Analyzing	V. Evaluating	VI. Creating
Bloom's Definition	Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers.	Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas.	Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations.	Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria.	Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
Verbs	<ul style="list-style-type: none"> • Choose • Define • Find • How • Label • List • Match • Name • Omit • Recall • Relate • Select • Show • Spell • Tell • What • When • Where • Which • Who • Why 	<ul style="list-style-type: none"> • Classify • Compare • Contrast • Demonstrate • Explain • Extend • Illustrate • Infer • Interpret • Outline • Relate • Rephrase • Show • Summarize • Translate 	<ul style="list-style-type: none"> • Apply • Build • Choose • Construct • Develop • Experiment with • Identify • Interview • Make use of • Model • Organize • Plan • Select • Solve • Utilize 	<ul style="list-style-type: none"> • Analyze • Assume • Categorize • Classify • Compare • Conclusion • Contrast • Discover • Dissect • Distinguish • Divide • Examine • Function • Inference • Inspect • List • Motive • Relationships • Simplify • Survey • Take part in • Test for • Theme 	<ul style="list-style-type: none"> • Agree • Appraise • Assess • Choose • Compare • Conclude • Criteria • Criticize • Decide • Deduct • Defend • Determine • Disprove • Evaluate • Explain • Importance • Influence • Interpret • Judge • Justify • Measure • Opinion • Perceive • Prioritize • Prove • Rate • Recommend • Rule on • Select • Support • Value 	<ul style="list-style-type: none"> • Adapt • Build • Change • Choose • Combine • Compile • Compose • Construct • Create • Design • Develop • Discuss • Elaborate • Estimate • Formulate • Imagine • Improve • Invent • Maximize • Minimize • Modify • Original • Originate • Plan • Predict • Propose • Solution • Solve • Suppose • Test • Theory