

# **graduate COMMITTEE curriculum PROPOSAL FORM**

## A. Cover page (rover over text for more instructions- please delete red instructions)

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| A.1[. Course or program](#_acknowledge) | **HCA 572 Health Care Data Visualization** |  |
| Academic Unit | School of Business |  |
| A.2. [Proposal type](#type) | Course: creation   |  |
| A.3. [Originator](#Originator) | Marianne RaimondoSankeerth Rampa | [Home department](#home_dept) | Health Care Administration |
| A.4. [Rationale](#Rationale) | This new course will serve as a required component of the MS in Health Care Administration - Data Analytics Concentration. This course introduces the basics of effective data visualization and storytelling. Students will learn how to find stories in data sets, effective visual communication, the legal and ethical implications of data visualization, basic statistics, and understanding how to evaluate the reliability and validity of data sets. Additionally, hands-on experience with popular data visualization tools will empower students to translate complex healthcare data into clear and informative visuals. Understanding the pivotal role of data visualization in healthcare decision-making is a core objective, emphasizing the strategic value of this skill. Furthermore, the course fosters critical thinking and creativity in data visualization, enabling students to select the most appropriate methods for effectively conveying healthcare insights.  |
| A.5. [Student impact](#student_impact) | * New course in MS in Health Care Administration - Data analytics concentration.
* Prepares students and health care/IT professionals for in demand jobs with updated skill sets in health care information systems and data analysis.
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| A.6. [Impact on other programs](#impact) | Could serve as a pipeline to MS HCA |
| A.7. [Resource impact](#Resource) | [Faculty PT & FT](#faculty" \o "Need to hire new full-time or part-time faculty? This is where you indicate if this proposal will be affecting FLH in your department/program.):  | Full time or adjuncts from CIS |
|  | [Library:](#library) | None |
|  | [Technology](#technology) | None |
|  | [Facilities](#facilities): | None, will use existing classrooms and computer labs  |
| A.8. [Semester effective](#Semester_effective) | Spring 2024 or Fall 2024 | A.9. [Rationale if sooner than next Fall](#Semester_effective) |  |
| A.10 [Changes to the website](#Signature_2) |  |

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| A.10. INSTRUCTIONS FOR CATALOG COPY: This single file copy must include all relevant pages from the college catalog, and show how the catalog will be revised. (1) Go to the “Forms and Information” on the graduate committee’s website <https://www.ric.edu/department-directory/graduate-curriculum-committee/forms-and-information>Scroll down until you see the Word files for the current catalog. (2) Download ALL catalog sections relevant for this proposal, including course descriptions and/or other affected programs. (3) Place ALL relevant catalog copy into a single file. Put page breaks between sections and delete any catalog pages not relevant for this proposal. (4) Using the track changes function, revise the catalog pages to demonstrate what the information should look like in next year’s catalog. (5) Check the revised catalog pages against the proposal, making sure that program totals are correct when adding or deleting course credits. |

## B. NEW OR REVISED COURSES

|  | Old ([for revisions only](#Revisions))ONLY include information that is being revised, otherwise leave blank | NewExamples are provided within some of the boxes for guidance, delete just the examples that do not apply. |
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| B.1. [Course prefix and number](#cours_title)  |  | HCA 572 |
| B.2. Cross listing number if any |  |  |
| B.3. [Course title](#title)  |  | Health Care Data Visualization |
| B.4. [Course description](#description)  |  | Course covers best practices in storytelling using popular visualization tools and health care datasets. Graphical excellence, Interactivity, dashboards, color theory, perception, and ethical aspects of visualization are also covered.  |
| B.5. [Prerequisite(s)](#prereqs) |  | HCA 552 or permission of program director. |
| B.6. [Offered](#Offered) |  | Spring |
| B.7. [Contact hours](#contacthours)  |  | 3 |
| B.8. [Credit hours](#credits) |  | 3 |
| B.9. [Justify differences if any](#differences) |  |
| B.10. [Grading system](#grading)  |  | Letter grade  |
| B.11. [Instructional methods](#instr_methods) |  | Lecture Computer lab Small group  |
| B.11.a [Delivery Method](#instr_methods) |  | Hybrid |
| B.12.[Categories](#required) |  | Required for program  |
| B.13. [How will student performance be evaluated?](#performance) |  | Attendance Class participation Exams Presentations Projects Papers and/or Case Studies |
| B.14. [Redundancy with, existing courses](#competing) |  | None |
| B. 15. Other changes, if any |  |

| B.16. [Course learning outcomes](#outcomes): List each outcome in a separate row | [Professional organization standard(s)](#standards), if relevant  | [How will each outcome be measured?](#measured) |
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| Understand the foundations of data literacy and data visualization  | ICABE | Quizzes, written assignments, and class discussions assessing the theoretical understanding of data literacy principles and the foundations of data visualization.  |
| Gain experience in using popular data visualization tools. | ICABE | Practical assignments and projects requiring students to use popular data visualization tools.  |
| Effectively tell a story based on a dataset to a target audience.    | ICABE | Assignments and projects where students create visualizations to tell a coherent and compelling story using health care datasets.  |
| Design visualizations based on best practices, while avoiding poor practices.   | ICABE | Assignments and projects focusing on designing visualizations that adhere to best practices, and discussions on common pitfalls and poor practices.  |
| Critique data visualizations competently, identifying the strengths and weaknesses of a visualization.  | ICABE | Assignments and class discussions where students analyze and critique existing data visualizations, identifying strengths and weaknesses.  |

| B.17. [Topical outline](#outline): Please do not include a full syllabus |
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| 1. Understand the foundations of data literacy and data visualization
	1. Simple statistics
	2. Graphical Excellence
	3. Fundamental variations of graphs
	4. Time series, maps, tables
2. Gain experience in using popular data visualization tools with health care datasets
	1. Data sources in healthcare
3. Data visualization Fundamentals and tools
	1. Types of health care data visualizations
	2. Data visualization software
4. Effectively tell a story based on a health care datasets
	1. Interactivity
	2. Dashboards
	3. Storytelling
5. Design visualizations based on best practices using health care datasets
	1. Visual perception
	2. Color theory
	3. Storytelling
6. Critique data visualizations competently, identifying the strengths and weaknesses of a visualization
	1. Graphical integrity
	2. Chart junk
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## D. Signatures

##### D.1. Approvals:

##### Required from department chairs, program directors, and deans from the academic unit originating the proposal.

| Name | Position/affiliation | [Signature](#_Signature) | Date |
| --- | --- | --- | --- |
| Marianne Raimondo | Program Director of HCA (Health Care Administration) | *Marianne Raimondo MS, MSW, Ph. D* | 11/14/23 |
| Justin Feeney | Chair of Department of Management and Marketing |  | 11/08/23 |
| Marianne Raimondo | Dean of School of Business | *Marianne Raimondo MS, MSW, Ph. D* | 11/14/23 |

##### D.2. [Acknowledgements](#acknowledge):

##### Required from all departments (and corresponding dean) impacted by the proposal. Signature does not indicate approval. Concerns should be brought to the attention of the graduate committee chair for discussion.

| Name | Position/affiliation | [Signature](#Signature_2) | Date |
| --- | --- | --- | --- |
| Suzanne Mello-Stark | Chair of Department of Computer Science and Information Systems |  | 11/15/23 |