OVERVIEW OF THE DCS PROGRAM

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DOCTORAL DEGREE PROGRAM

The CTU Doctoral Program has three degree programs ...

• DCS – Doctor of Computer Science
• DM – Doctor of Management
• DBA – Doctor of Business Administration
DCS CONCENTRATIONS

Enterprise Information Systems

Big Data Analytics

Cybersecurity and Information Assurance

General
ENTERPRISE INFORMATION SYSTEMS

Course Objectives ...

Assess technology solutions that support enterprise-wide business objectives and the organizational mission

Analyze impact of strategic decisions within the enterprise architecture

Evaluate enterprise data and business intelligence requirements

Synthesize strategic planning for resources, systems, and vendor outsourcing

Formulate a framework for risk management of information technology assets and business continuity/disaster recovery
Course Objectives ...

Demonstrate an understanding of the common characteristics of big data: volume, velocity, variety, and veracity

Assess and apply the use of big data software tools to organize various types of datasets

Evaluate artificial intelligence solutions to big data problems

Devise algorithms for efficiently processing big data to support business operations

Create a big data use and analysis framework for the mission of an organization
Course Objectives ...

Create a security framework for protecting organizational assets to operations and data

Evaluate security solutions and models for securing the enterprise

Assess threats and vulnerabilities from internal and external sources

Formulate effective security awareness and prevention programs

Evaluate risks to organizational assets and management of business continuity/disaster recovery
COMMON THEMES WITHIN THE CONCENTRATIONS

Prepares leaders
Merges skills and theory
Addresses emerging trends in the field
Requires research capabilities
DESIGNED TO ALLOW GRADUATION IN 3 YEARS

Year 1: Foundations
Year 1 focuses on computer science and information systems topics and an orientation to research and writing at the doctoral level. Coursework covers current topics in the disciplines as well as research methods and qualitative techniques. The research component results in a broad overview of the student’s area of concentration in order to put the research into context and inform the student’s selection of a research topic.

Year 2: Acquisition of Knowledge
Once the foundations are in place, Year 2 is where each student develops an in-depth understanding of the knowledge and research methods in his or her chosen area of study. While most of the effort in Year 2 is on developing a richer understanding of the discipline.

Year 3: Proposal and Dissertation Completion
Coursework in the final year of the program includes the two remaining concentration courses plus the final six doctoral research courses that enable one to complete the research and dissertation.
PROGRAM REQUIREMENTS OVERVIEW

96 Credit Hours Needed to Graduate (each course is 4 credits)

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12 Core and Concentration Courses

• CSxxx (most of these courses)

9 Research and Dissertation Courses

• RES860, RES861, RES862, RES863, RES864 (11-week courses)
• RES865, RES866, RES867, RES868 (5.5-week courses)

3 Research Methods Courses

• RES804, RES812, RES814

Dissertation (5 Chapters for most, Occasional 6 Chapters for Design Science)
YEAR 1 – DM, DBA, AND DCS PROGRAMS

RES860 – Doctoral Research I: Principles of Research and Writing
-----Core Course----- or -----Concentration Course-----

RES804 – Principles of Research Methods and Design
-----Core Course----- or -----Concentration Course-----

RES812 – Qualitative Research Methods
-----Core Course----- or -----Concentration Course-----

RES861 – Doctoral Research II: Annotated Bibliography
-----Core Course----- or -----Concentration Course-----

11-Week Courses
YEAR 2 – DM, DBA, AND DCS PROGRAMS

RES814 – Quantitative Research Methods
-----Core Course----- or -----Concentration Course-----

-----Core Course----- or -----Concentration Course-----
-----Core Course----- or -----Concentration Course-----

-----Core Course----- or -----Concentration Course-----
-----Core Course----- or -----Concentration Course-----

RES862 – Dissertation Research Process
-----Core Course----- or -----Concentration Course-----
YEAR 3 – DM, DBA, AND DCS PROGRAMS

RES863 – Doctoral Research III: Dissertation Literature Review
-----Core Course----- or -----Concentration Course-----

RES864 – Doctoral Research IV: Dissertation Methods
-----Core Course----- or -----Concentration Course-----

RES865 – Doctoral Research V: Dissertation Introduction
RES866 – Doctoral Research VI: Dissertation Findings

RES867 – Doctoral Research VII: Dissertation Discussion and Conclusion
RES868 – Doctoral Research VIII: Dissertation Conclusion

11-Week Courses
5.5-Week Courses
To finish these courses and stay on schedule, must complete the above activities (at a minimum):

1. Polish your draft of Chapter 2.
2. Review of the Literature.
3. Draft of Chapter 3 + Grammarly
4. Revision of Chapter 3 (as required)
5. Draft of Chapter 1 + Grammarly
6. Revision of Chapter 1 (as required)
7. Total Proposal for Mentor Review + Grammarly
8. Revision of Proposal (as required)
9. Submission of Proposal for Proposal Review
10. Revision of Proposal (as required)
11. IRB for Mentor Review
12. Revision of IRB (as required)
13. IRB Submitted by Professor to IRB
14. Revision of IRB (as required)
15. Data Collection
16. Data Analysis
17. Chapter 4 + Grammarly
18. Revision of Chapter 4 (as required)
19. Chapter 5 + Grammarly
20. Revision of Chapter 5 (as required)
21. Entire Dissertation (Chapters 1–5) (make sure to change future to past tense) + Grammarly
22. Revision of Dissertation (as required)
23. Committee Review
24. Revise Dissertation (as required)
25. Perform Grammarly Check, Submit Report, Revise, Citation Cross-Reference
26. Final Presentation
27. Professional Editing
28. Publication

Early Emphasis on Building Literature Review (Chapter 2)
TRIO – BIG DATA ANALYTICS EXAMPLE

Problem Sentence
The problem to be addressed in the proposed study is the business decision processes in big data projects have not been identified (reference, year).

Purpose Sentence
The purpose of the proposed qualitative exploratory study is to explore the business decision processes in big data projects.

Research Question
What are the business decision processes in big data projects?

Dissertation Title
EXPLORING THE BUSINESS DECISION PROCESSES IN BIG DATA PROJECTS
CHAPTER 2 ADDRESSES THE PARTS OF ELEPHANT

CHAPTER TWO

History of the Trunk

Topic 1
Topic 2
Topic 3

Issues of the Leg

Successes of the Side

Benefits of the Top

Risks of the Tail

Emergence of the Ear

Conceptual Framework

Summary of Chapter Two
Welcome to the Library Portal for Doctoral Students, or, as we call it, the Doc Library.

This site is a collection of resources for doctoral students, from tools and research, to help and how-to topics, and other services.

About the Doc Library

Doctoral Research Journey

- ISS Course Milestones
- Doctoral Research Journey

This presentation outlines the pieces of the doctoral curriculum, showing how each part contributes to your final dissertation.

- Dissertation Process
  - This is the video from orientation.

- What is Research? (Orientation Live Chat)
  - Dr. Murphy’s overview of what research is and how it fits into the doctoral dissertation.

Research Resources

- Online Databases and E-Books
  - A-Z list of all library databases.
  - A-Z list of databases. Subject guide. Start here!

- Google Scholar
  - Search for full-text articles across multiple databases.

- WorldCat
  - Search for books and articles in over 7,000 libraries.
Thank you for joining this session!
Questions?