

**Ph.D. in Applied Mathematics,
Minor in Faith-Based Data Analysis and Research
HBI University**

Course Duration: 3 years

Credit Hours: 105 (including minor)



Program Description

The Doctor of Philosophy (Ph.D.) in Applied Mathematics at HBIU University is designed to equip students with advanced skills in both theoretical and applied mathematics, preparing them for leadership roles in research, industry, and academia. This program covers a wide range of mathematical topics, including optimization, statistical analysis, differential equations, mathematical modeling, and computational methods. Students will learn how to apply mathematical theories and techniques to solve real-world problems in areas such as engineering, economics, data science, and technology. Graduates will be prepared to contribute meaningfully to various fields, offering solutions to complex problems and advancing mathematical practices.

The Minor in Faith-Based Data Analysis and Research specialization provides a unique focus on integrating faith-based perspectives with data analysis and research methodologies. This specialization explores the ethical implications of data collection, analysis, and decision-making from a Christian worldview, emphasizing responsible use of data for social good. Topics include faith-driven research methodologies, data analysis for community development, and the role of faith in

shaping research priorities. Students will gain the skills to work in faith-based organizations, social research institutions, and nonprofits, applying data analysis to solve problems in a way that aligns with Christian values and principles.

Admissions Requirements

- Master's degree in a relevant field
- Minimum GPA of 3.0
- GRE scores (if applicable)
- Statement of Purpose (1,000-1,500 words) outlining research interests
- Three letters of recommendation
- Academic writing sample
- Curriculum Vitae (CV) or resume
- Interview with faculty (if required)

General Education Courses (30 Credit Hours)

Course Code	Course Name	Credit Hours
GEN 101	Critical Thinking and Writing	3
GEN 102	Research and Information Literacy	3
GEN 103	Ethics and Social Responsibility	3
GEN 104	Statistical Methods for Research	3
GEN 105	Leadership and Strategic Planning	3
GEN 106	Global Perspectives and Cultural Awareness	3
GEN 107	Philosophical Foundations of Inquiry	3
GEN 108	Technology and Data Analysis	3
GEN 109	Organizational Behavior and Change	3
GEN 110	Public Policy and Governance	3

Core Foundational Courses (23 Credit Hours)

Course Code	Course Name	Credit Hours
PH.D 701	Advanced Theories in the Field	3

PH.D 702	Applied Research Methods	3
PH.D 703	Leadership and Ethics	3
PH.D 704	Strategic Decision Making	3
PH.D 705	Policy and Governance	3
PH.D 706	Innovation in the Field	3
PH.D 707	Case Study Analysis	2
PH.D 708	Capstone in the Field	3

Minor in Faith-Based Data Analysis and Research (15 Credit Hours)

Course Code	Course Name	Credit Hours
MINO 701	Introduction to the Minor Field	3
MINO 702	Ethics and Best Practices	3
MINO 703	Case Studies and Applications	3
MINO 704	Policy and Governance in the Minor	3
MINO 705	Capstone Project in the Minor	3

Program Outcomes

- Conduct advanced research in ph.d. in applied mathematics.
- Develop expertise in minor in faith-based data analysis and research and its applications.
- Lead policy, research, and practical implementation in the field.
- Contribute to academic and industry advancements.

Career Outcomes and Potential Pay Scale

Career Path	Average Salary (Annual)
University Professor	\$80,000 - \$140,000
Policy Analyst	\$85,000 - \$135,000
Research Director	\$90,000 - \$150,000
Government Advisor	\$100,000 - \$160,000
Non-Profit Executive	\$75,000 - \$140,000