

Dual Enrollment Academy

PRE-GEOSPATIAL STUDIES ACADEMY

100% Online

Affordable Cost

Eight Week Terms

Experienced Faculty

Explore Your Interests



**MISSIONAL
UNIVERSITY**
SERVICE IN THE MISSION OF GOD



Mapping the Mission

College Credit
For Juniors & Seniors
in High School

Why Pre-Geospatial Studies?

The Department of Geospatial Studies seeks to advance global mission by educating students to think spatially, training them in the use of geospatial technologies, customizing and serving data and conducting spatial analysis to drive missional operations, strategies and decision making. Graduates may serve in the mission of God in many different types of NGOs including faith-based organizations, denominational groups, mission agencies and evangelical environmental groups; as well as serving in community development organizations devoted to regional and community planning, economic development, cultural resource management, and heritage preservation.

The department participates in the mission of God in the world through mapping the mission in various cultural settings across the globe. The international faculty in this department are driven by the use of geospatial analysis to see old problems in new ways making connections through thematic and geospatial analytic processes. Students gain skills that may be used to map a wide variety of issues that impact missional efforts in intercultural mission, missional practices, community ministries, environmental mission, global healthcare, communication and media, and theological studies.

The Department of Geospatial Studies at Missional University equips students to think critically, understand complex issues, visualize and analyze geospatial data, and address questions related to place and spatial interactions. Students have opportunities to participate in the Evangelical GIS Society.

The Pre-Geospatial Faculty



Professor David Brazzeal

*Instructor in Missional Arts
Prayer & Spiritual Formation
Specialist
M.Mus. (Southwestern)*



Dr. Ehud Garcia

*Senior Professor of Missional Theology
Diaspora Missions
Specialist
PhD (Fuller)*



Dr. Stacey Lyle

*Distinguished Professor of
Geospatial Studies
Ministry Geoinformatics Specialist
PhD (Georgia)*



Professor Drake Sprague

*Instructor in Geospatial Studies
People Group Research
Specialist
MA (Florida Atlantic)*



Dr. Sungpil Yoon

*Professor of Geospatial Studies
GPS/GNSS & Physics
Specialist
Ph.D (Auburn)*

Pre-Geospatial Curriculum

LIVINGSTONE SIGNATURE SERIES

THM 1000	Exploring the Mission of God	Garcia
ELD 1000	Intro to Missional Spirituality	Brazzeal

CORE REQUIREMENTS

1000 LEVEL

GEO 1200	Intro to Geospatial Systems	Sprague
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2000 LEVEL

GEO 2200	Intro to Geospatial Software Systems	Sprague
GEO 2220	Concepts & Applications of Geospatial Systems	Lyle
GEL 2200	GNSS in the Geosciences	Yoon

GENERAL STUDIES ELECTIVES (choose 2 below)

See the List of General Studies Courses in the Course Description Section

Suggested Schedule

Year One

Academic Term	Course#	Course Title	Professor
August - September	ELD1000	Intro to Missional Spirituality	Brazzeal
October-November	GEO1200	Intro to Geospatial Systems	Sprague
January-February	GEO2200	Intro to Geospatial Software Systems	Sprague
March-April		<i>General Studies Elective</i>	

Year Two

Academic Term	Course#	Course Title	Professor
August - September	THM1000	Exploring the Mission of God	Garcia
October-November	GEO2220	Concepts & Applications of Geospatial Systems	Lyle
January-February	GEL2220	GNSS in the Geosciences	Yoon
March-April		<i>General Studies Elective</i>	

Course Descriptions

Core Requirements

GEO 1200 Intro to Geospatial Systems

Introduces geospatial technologies and methods including Geographic Information Systems (GIS), cartography, remote sensing, and spatial analysis with an emphasis on their use for defining and understanding ministry environments in context of geography.

GEO 2200 Intro to Geospatial Software Systems

Provides a basic understanding of geospatial software packages, specifically Geographic Information Systems (GIS), used to capture, store, manipulate, analyze, manage, and present spatial or geographical data. An emphasis is placed on the use of free and open source software (FOSS) systems and their applications for missionary ministry.

GEO2220 Concepts & Applications of Geospatial Systems

Introduction to geographic information systems (GIS) applications and its theoretical foundations. Topics covered include vector and raster data models, acquisition and manipulation of data, cartography, current topics, data quality, and basic spatial analysis. Principles and uses of GIS software also covered.

GEL 2200 GNSS in the Geosciences

This course is an introduction to the Global Navigation Satellite Systems (GNSS) and its application in geosciences. It will deal with the history, development, drawbacks and advantages of the GNSS. The mechanics of satellite constellation, datums coordinate systems, point versus differential positioning will be discussed as well. Special emphasis will be placed on the use of GNSS data to investigate geohazards, crustal deformation, post- seismic deformation, volcano deformation and plate tectonic motion.

Missional Foundations

Exploring the Mission of God

A survey of *Missio Dei*, the mission of God, explores salvation history through the redemptive vision of God. The student will learn how God is reconciling all of creation unto himself in the person and work of Jesus Christ. Students will also observe God at work through His people in mission.

Intro to Missional Spirituality

This course explores the spiritual dimension of missional engagement in the post-Christendom world. Students will discover practical and creative ways of deepening their personal spirituality allowing more engagement with not-yet Christians and the development of authentic missional community. Resources will include readings, video interviews with practitioners, creative spiritual practices, real-life experimentation and weekly Q & A reports.

General Education Electives (choose 2)

Arts Distribution

DGR 2100 Digital Media for Everyday Life

An introduction to the major media forms used in Digital Media production, including print design, web design, audio production, video production, animation and authoring tools through hands-on experiences. Students will also investigate the impact of digital media on society and current issues in media and technology.

DGR 2200 Graphic Design for Everyday Life

Visual design is at root a problem solving endeavor. And the tools we use are based in the use of metaphor and imagery to communicate solutions to those we serve and to ourselves as designers. The course introduces the fundamental principles, practices, and software of current creative industries. Identifies, applies, and practices design foundations through a survey of common creative industry assignments introducing basic standard software program techniques.

FTH 1100 Intro to Scriptwriting

Exploring the structural components of scriptwriting to include format, theme, character development, and writing techniques. Students will also critique and discuss published works and provide analysis and feedback of their fellow classmates' scripts based on precepts and principles learned in the class.

MED 1000 Intro to Media Studies

This introductory course provides an overview of the history, function, and meaning of mass media. The course will also introduce critical/theoretical concepts for analyzing mass media. Students will study various media forms and come to an understanding about how each medium shapes our social context, experience, and perception.

Communication Foundations

COM 1000 Intro to Communication Theory

This is an introductory course to the use of theory in the study of communication. We will examine theories and frameworks that are used to analyze and understand various aspects of human communication – from interpersonal to international communication.

ENG 1100 Research & Academic Writing

Reinforces the overall essay writing skills. Students will focus on writing for academic purpose. Moreover, the skills acquired in this course will prepare students for writing assignments in higher level courses across the curriculum. Students will engage in extensive research writing skills such as: compiling research, paraphrasing, summarizing, including direct and indirect citations, incorporating sources within the paper, formatting using a manual style.

ENG 1200 Written Communication

Introduces the craft of creative writing. Using a variety of genres, students will examine various literary conventions, writing approaches and styles, and tools that are crucial to effective creative writing and editing. The focus is both fiction and poetry. Students will be encouraged to explore analyze the various styles and literary devices, while completing their creative texts. Students will share their creative writing with peers and share feedback.

ITM 1000 Information Technology Literacy

This course introduces students to the foundations and principles of information technology and the impact they have in today's society. The course topics include: digital literacy, information technology theories and concepts, information technology skills in professional fields, computing devices, research in technology, multimedia, and networking.

ITM 1100 Intro to Cybersecurity

This course introduces students to the many facets of cybersecurity and information assurance. Students will learn the fundamentals of malware, cryptography, intrusion detection, risk management and network security. Ethical issues related to cybersecurity will be covered in depth.

Health Foundations**GHL 1100 Intro to Global Health**

Why are some people in some countries so much healthier than others? This course will explore the factors that explain the unequal distribution of health and disease in the world. This course introduces students to critical global health issues and ways to address or solve them. The course introduces students to the burden and distribution of disease and mortality; the determinants of global health disparities; the making of global health policies; and the outcomes of global health interventions. The course will incorporate knowledge and views from multiple academic disciplines (public health, economics, politics, management, sociology, etc) and does not require any background knowledge.

HLT 1100 Health & Wellness in Family & Community

Introduces students to the broad concepts of health and wellness while exploring their meanings and implications within family systems and communities. Learning activities include readings, class discussions, and various exercises to explore these concepts from cultural and missional perspectives.

HLT 2000 Intro to Health in Sociology

Students will begin learning about the health beliefs, practices, and healthcare systems in other cultures. This course explores health-related topics and issues within the context of human society from a mission perspective. Class structure includes lecture, readings, discussion, and student presentations.

HLT 2010 Intro to Nutrition and Health

An introduction to the concepts of nutrition and health from a biblical perspective. Students will explore the ministry implication of global nutrition trends and personal habits. Course project involves developing healthy meal plans for a family on a limited income using local resources.

HLT 2110 Foundations of Mental Health

The evolution of the mental health system and the factors influencing mental health services are examined. The course focuses on the development of mental health services in the community and the response to mental health needs in the community. An exploration of historical, political, social, cultural, and economic dimensions of mental health are discussed.

HLT 2200 Medical Terminology for Health Services

Medical Terminology for Health Services is an essential foundation course for anyone working in or dealing with health services or health care. Understanding the physical challenges of individuals with whom you come in contact will support holistic care, decrease misunderstandings and help with prep of assessments of all types. Knowing and using the terminology provides entry to the care team, individual and family. This knowledge supports the ability to read and interpret important research, health and medical articles, reports and to know whether they are applicable to the patient/client population you are serving.

HLT 2300 Substance Abuse & Society

An examination of the cause and effects of substance abuse and society. Students will learn not only how the environment plays a role in a substance abuser's life, but also how a substance abuser influences the environment around them. Both positive and negative cause and effects will be discussed in this course.

HPH 2400 Human Physiology

Students will examine the functional relationship of anatomy to physiology by studying how the organ systems function. Topics will include: endocrinology, respiratory, cardiovascular, and neurobiology systems.

Humanities Distribution**DSP 2100 Intro to Diaspora Studies**

What does it mean to live in diaspora? Course surveys historical and contemporary movements of peoples away from native environments and the complex issues of identity and experience related to uprooting and re-establishing. Examines specific case studies, theory and practice, drawing from psychology, sociology, history, arts, cultural studies and other humanities.

HIS 1100 Survey of US History I

This course will encompass the history of the United States up to 1877. The students will analyze the period of early North American exploration and colonization through the Reconstruction era. Specific emphasis will be placed on the social, cultural, political, and economic evolution of the United States.

HIS 1200 Survey of US History II

This course will analyze the history of the United States from 1877 to the present. The students will review the growth of the United States from Post-Reconstruction to the global era. Specific emphasis will be placed on the social, cultural, political, and domestic issues of the U.S. and its emergence as a world power.

REL 1000 Intro to Study of Religion

Introduction to the social scientific and historical comparative study of religions. Through reading, reflection, writing and discussion, students will explore the social and personal dimensions of religion through history, how religion shapes people and their experience of the world, and how it is shaped by people. Students will develop their own unique “Great Commission” and missional-relational perspective.

REL 2800 World Religions

Survey of major religions, from ancient foundations through current practices. Using films to illustrate lifestyle, culture and context, students explore Hinduism, Buddhism, Judaism, Islam and Christianity, as well as some less widespread historic and newer religions. Addresses divisions within a religion, how new religions emerge, tribal practices and atheism.

Mathematics Distribution**MAT 1000 College Algebra**

Will rigorously treat sets, (linear and quadratic) equations and inequalities, functions and graphs, polynomials, rational, exponential, logarithmic functions, systems of equations and inequalities.

MAT 1300 Precalculus

Topics covered are equations, functions, polynomial functions, rational functions, exponential and logarithmic functions, systems of equations, trigonometric functions, mathematical inductions, sequences, and binomial theorem.

Natural Sciences Distribution**BIO 1100 Fundamentals of Biology & Lab**

This course will focus on the basic principles of cell biology, molecular biology, and genetics.

BIO 1200 Environmental Biology & Lab

This course will introduce environmental processes and how humans influence them.

BIO 2100 Biological Terminology

This course will focus on basic terminology needed for biology courses. Students will learn the origin of biological terms and how they are used.

CHM 1101 General Chemistry I & Lab

This course will focus on inorganic and physical chemistry. Topics will include: atomic structure, covalent and ionic bonding, chemical reactions, chemical calculations, and acid, base and solution chemistry.

ENS 1000 Weather and Climate & Lab

This course examines the basic elements of the climate system: the role of the sun and earth's orbit, constituents and properties of the atmosphere, how clouds and precipitation form, basic weather

patterns, main features of the global circulation and oceans, key atmospheric cycles. A brief discussion of long term changes in climate and human influences.

ENS 1100 Environmental Science

This course explores the interaction between geology, the environment, and society. Topics may include geologic hazards, hydrogeology, natural resources, and pollution.

GEL 1000 Geomorphology

Geomorphology describes the form and development of geologic landscapes. This course will explore how processes such as tectonics, weathering, erosion, karst, and glacial movement have shaped landforms both in modern times and in the past. Students will interpret topographic and geologic maps, as well as aerial photographs.

GEL 1100 Planet Earth & Lab

This course explores the interaction between geology, the environment, and society. Topics may include geologic hazards, hydrogeology, natural resources, and pollution.

GEL 1200 Principles of Geology & Lab

This course explores the interaction between geology, the environment, and society. Topics may include geologic hazards, hydrogeology, natural resources, and pollution.

GEL 2200 GNSS in the Geosciences

This course is an introduction to the Global Navigation Satellite Systems (GNSS) and its application in geosciences. It will deal with the history, development, drawbacks and advantages of the GNSS. The mechanics of satellite constellation, datums coordinate systems, point versus differential positioning will be discussed as well. Special emphasis will be placed on the use of GNSS data to investigate geohazards, crustal deformation, post- seismic deformation, volcano deformation and plate tectonic motion.

PHY 2300 The Physics of How Things Work

This course is an introductory physics course for non-science related majors. Objects and phenomena found in everyday life are utilized to motivate the understanding of basic physics concepts. Topics that will be discussed include motion, energy, electricity, optics and modern physics.

Social Science Distribution**ANT 1000 Anthropology for Everyday Life**

Introduction to the basic terms, tools, and issues of cultural anthropology. Students have the opportunity to carry out and write up original research.

CJS 1100 Intro to American Criminal Justice

An overview of the American criminal justice system covering the traditional topics of police, courts, and corrections, due process, search and seizure, coverage of plea bargaining, legal and ethical values, and capital punishment. The focus is on critical thinking approaches.

CMT 2100 Understanding Communities

Introduces students to the evolution and nature of human communities from a geographical, historical, religious, and sociological perspective. Particular attention that may be explored include community formation and change, cooperation within and between communities, claiming communities for Christ, and the need to address community concerns.

CMT 2600 Intro to Urban Studies

Provide a broad introduction to urbanism from a historical, geographical, and sociological perspective, focusing on design, environment impact, and the social and economic actions that have produced urban areas. Particular attention placed on claiming cities for Christ and the need to address urban concerns.

GEO 1200 Intro to Geospatial Systems

Introduces geospatial technologies and methods including Geographic Information Systems (GIS), cartography, remote sensing, and spatial analysis with an emphasis on their use for defining and understanding ministry environments in context of geography.

GEO 2000 Cultural Geography

Examines issues of human cultural impact on the landscape through exploring numerous developmental ideologies and practices that have evolved throughout the last century. Participants will explore the intersections of context and culture to help students evaluate current ideologies of strategy and practice.

PSY 1000 Introduction to Psychology

The course will present a broad and general overview of the field of Psychology. The main goals of this course are to acquaint students with the different areas contained within psychology including learning, memory, research methods, thinking patterns, emotion and motivation, stress, personality, and social behaviors. The course will provide some of the major concepts of each area.

PSY 2000 Social Influences on Behavior

This course will examine social issues and influences on people in everyday life. These issues and influences include but are not limited to conformity, persuasion, prejudice, social media, self-justification, propaganda, and emotional feelings. Students will learn how such influences can create or influence development and mental illness.

YFM 1100 Human Development and the Family

Missional students being introduced to the Human Development and Family Studies field will gain an understanding of individual and family development over the life span. This course will specifically focus on the developing individual within the context of the family system and the changes that occur in family systems over time.

YFM 2300 Foundations of Work with At Risk Youth

This course is designed to create an environment for Missional students to explore various tenets of working with at risk youth from a risk and resiliency perspective. The purpose of this course is to enable students to critically examine their beliefs, values and feelings in relation to at risk populations

(specifically at risk youth), explore and apply the Resiliency Enhancing Model, and assess possible roles for the social science professional at the micro, mezzo and macro level of intervention.

Dual Enrollment Academy Contacts

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