

ALL COURSES - GRADUATE LEVEL

All Graduate Level Courses

ACC 516. Advanced Cost Accounting. 3 credits. FA

The course covers advanced managerial accounting topics, such as process costing, management control systems, activity-based costing and activity-based management, joint cost allocation, balanced scorecard performance measures. The course deals with the need to adapt traditional management accounting methods as changes take place in the new business environment. The sources of change include the continued movement away from manufacturing and into the service industry, the globalization of business, information technology, and the need for more nonfinancial measures of evaluation. P. ACC 315 and senior standing. May be taken for graduate credit upon completion of department approved graduate level work products.

ACC 521. Advanced Accounting. 3 credits. SP

This course involves the study and application of financial reporting concepts to specialized accounting problems and cases. Coverage includes accounting for nonprofit entities, accounting for income taxes, reporting of business combinations, preparation of consolidated financial statements, and accounting changes. P. ACC 319; CR: Sr. stdg., DC. May be taken for graduate credit upon completion of department approved graduate level work product.

ACC 523. Advanced Auditing. 3 credits. SP

This course integrates prior accounting and other educational experiences with advanced application of auditing concepts and standards. P. ACC 323; CR: Sr. stdg. May be taken for graduate credit upon completion of department approved graduate level work product.

ACC 538. International Accounting. 3 credits. SP

An overview of accounting issues faced by multi-national firms. The course will focus on the challenges accountants and managers face when organizations produce, market or provide services in foreign cultures. P. ACC 202; CR: Jr. stdg.

ACC 544. Advanced Taxation. 3 credits. FA

An advanced consideration of federal taxation concepts relating to corporations, partnerships, estates and trusts, as well as consideration of wealth transfer taxes. Emphasis is on recognition of fact patterns producing taxable events and on planning to minimize taxes. May be taken for graduate credit upon completion of department approved graduate level work product. P. ACC 343.

ACC 577. Advanced Accounting Information Systems and Accounting Analytics. 3 credits. FA, SP

This course covers how to use data to formulate and solve business problems from an accounting paradigm. Students will extract value from big data through the application of current analytics tools. This course develops objective accounting decision-making skills to help the accounting professional become a forward-thinking strategic partner in the organization. This course develops the skill set needed to think critically using available data. The course will also expose students to common currently used business intelligence software packages. P. ACC 377, junior standing or approval of department chair. May be taken for graduate credit upon completion of department approved graduate level work product.

ACC 579. Seminar in Accounting. 3 credits. OD

Exploration and analysis of selected problems and issues in the accounting area of today's environment. Course content changes from semester to semester. This course is repeatable as long as topic differs (12 credits). P. ACC 201; ACC 202; senior standing.

BIA 603. Python Programming for Analytics. 3 credits.

This course provides a foundation in Python, focusing on how it is used for data analytics. This course will teach several things: the mental model of a programmer, how to problem-solve using computational thinking, how to devise creative solutions to problems, the terminology of technology/computers/software/hardware, and of course, some programming. Popular data analytics libraries will also be incorporated, including Pandas, NumPy, and SciPy.

BIA 729. Statistics for Business Analytics. 3 credits.

Properly applying statistical methodology to the analysis of business data benefits from a firm grasp of statistical concepts and techniques. This course strives to bring depth to the business analyst's toolbox of statistical methods by introducing the fundamental mathematical and statistical concepts underpinning modern statistical methods of data analysis.

BIA 735. Data Wrangling. 3 credits.

Students will develop essential skills in collecting managing and preparing data for Predictive modeling. The course covers key concepts such as data collection from various sources (APIs, webscraping, databases), data cleaning techniques to handle missing values and outliers, data integration methods like merging and reshaping, and feature engineering. P. BIA 603, BIA 729.

BIA 742. Predictive Analytics. 3 credits.

Predictive analytics allows organizations to predict future outcomes by studying the relationships among variables from existing data. This course discusses the process of developing, evaluating, and deploying predictive models in an application-oriented environment. The course is applied in nature and extensively uses business examples, readings, and hands-on exercises to reinforce the concepts. P. BIA 603, BIA 729, or IC.

BIA 746. Applications of Optimization Modeling. 3 credits.

The overarching purpose of this course is to help students improve their quantitative skills and make better decisions with the aid of mathematical modeling tools. This course introduces students to the basics of optimization modeling and analyses. Specifically, students will have a working knowledge of linear, non-linear, and integer programming models in a variety of business contexts. In addition, sensitivity analyses and "what if" scenarios will be examined. P. BIA 729.

BIA 750. Blockchain Technologies. 3 credits.

Blockchain is the underlying technology supporting cryptocurrencies like Bitcoin, XRP, and Ethereum, but its application go beyond cryptocurrencies. This course offers a practical introduction to blockchain technology, emphasizing its business implications. Students will explore the fundamental concepts of blockchain, such as distributed ledger technology and consensus mechanisms.

BIA 764. Data Governance. 3 credits.

This course explores the elements of data governance (e.g., principles, policies, functions, metrics, technology, tools, etc.), along with the process of designing, deploying and sustaining an effective data governance program which is essential to analytics-driven organizations. Additionally, students will explore master data management (MDM), data quality, and security, privacy, and regulatory compliance topics. P. BIA 762 or IC.

BIA 766. Graduate Internship. 1-3 credits.

This course is intended to provide graduate-level credit for significant program-related practical experience, coupled with a research component that utilizes the context of this practical experience as its primary vehicle of inquiry. Students must work a minimum of 150 hours for the sponsoring employer during the semester. In addition, the student must complete a research project related to this work, which has been planned and carried out under the direction of a graduate faculty supervisor, with the approval and cooperation of the sponsoring employer. The student's internship employment and faculty supervision for the research component must be arranged before registration for the course will be allowed. The course is graded Satisfactory/Unsatisfactory and only 3 hours of internship credit may be used to satisfy graduation requirements. P. IC and approval of the Associate Dean for Graduate Business Programs.

BIA 770. Cybersecurity. 3 credits.

This course will provide students with a solid technical understanding of cybersecurity or computer security. Students will gain an understanding of security concepts and explore a variety of technical tools that cover a wide range of security topics including governance, network security, database security, application security, cryptography, access controls, and incident and disaster response.

BIA 772. Data Visual Analysis and Visualization. 3 credits.

Information Visualization is an active area in BIA. The presence of big data in business today, along with the need for fast, accurate, and timely decisions based on information make information or data visualization critical. While there is a lot of data available, communicating insights and data storytelling are sought after skills that will be central to this course. P. BIA 729 or IC.

BIA 776. Ethics in Business Analytics. 3 credits.

This course considers the relationships between business and society, considering the ethical questions in analytics. Students should be able to identify ethical considerations and reason critically to arrive at moral decisions with issues surrounding analytics, particularly privacy and confidentiality, responsible use of data, and accurate representation of data and avoidance of algorithmic bias.

BIA 781. Machine Learning. 3 credits.

This course is designed to provide students with a foundation in machine learning as used in business analytics. Machine learning, while not a new field, has become of increasing interest to business due to its ability to provide predictive ability. Topics covered include machine learning approaches to prediction, classification and clustering. P. BIA 603 and BIA 729.

BIA 782. Database Management Systems. 3 credits.

This course provides an introduction to business database applications. Students will learn data modeling, relational database design techniques, and strategies for collecting, storing, manipulating, and retrieving data. Students will also be introduced to other Big Data concepts.

BIA 789. Seminar:Advanced Topics in Information Technology Management. 1-3 credits.

The content of this course will vary depending on the topic and instructor. With the permission of the instructor, the course can be repeated one time for credit, provided the course content is different. P. The prerequisites will depend on the course content.

BIA 794. Business Analytics Readings. 3 credits.

This is a readings course where students study books, articles, and position papers about a specific chosen business analytics topic. This course seeks to expand students' thinking and provides an opportunity for self-reflection. This is accomplished by reading, analyzing, sharing, reflecting and then reformulating the way we look at things/concepts in the Business Intelligence & Analytics realm. The readings will vary depending upon the theme/topic. P. Instructor Consent.

BIA 795. Independent Study and Research. 1-3 credits.

This course is for the study of topics that do not enjoy regular course offerings. P. IC and approval of the M.S.-BIA Program Director.

BMS 511. Science Communication for Science and Non-Science Audiences. 1 credit.

This course introduces fundamentals of science communication for a variety of situations, including conference presentations, popular science writing, and interpersonal communication. This course is appropriate for all STEM graduate students and upper division undergraduate students involved in research. CR: Jr. or Sr. stdg.

BMS 609. Introduction to Omics Data Analysis. 1 credit.

This is an introductory course to familiarize students with the principles of bioinformatic and computational analysis of transcriptomic, genomic and epigenomic data. A few hand-on projects will be designed for the students to practice the basic analyzing skills and to stimulate their interests for more advanced applications. P. BIO 202 or BMS 622.

BMS 622. Biochemistry, Molecular and Cell Biology. 4 credits.

This course covers fundamental principles of structural biochemistry and metabolism, and molecular and cell biology. P. IC.

BMS 630. Fundamentals of Hearing. 3 credits. FA, SP, SU

This is an advanced graduate level course focusing on the anatomy and physiology of the auditory system. The course will introduce students to the basics of normal human hearing with a focus on the peripheral auditory system, neural coding of sound, and the perception of simple sounds. P. Gr. Stdg. or IC.

BMS 680. Biology of Aging and Age-related Diseases. 3 credits.

This course covers the biology of aging at the molecular, cellular, and organismal level, as well as discussions on age related diseases. Topics include sections of cellular and molecular pathways of aging, molecular pathways of aging, model organism of aging, and the interrelationship between aging and disease, including hearing loss, cardiovascular disease, neurodegeneration, and cancer. P. BMS 622, or IC.

BMS 708. Cancer Biology. 2 credits.

This course covers the biology of aging at the molecular, cellular, and organismal level, as well as discussions on age-related diseases. Topics include sections on cellular and molecular pathways of aging, model organism of aging, and the interrelationship between aging and disease, including hearing loss, cardiovascular disease, neurodegeneration, and cancer. P. BMS 622 or DC.

BMS 720. Advanced Topics in Molecular Structure/Function. 1-3 credits. FA, SP, SU

This course covers functional aspects of molecular structure, peptide chemistry, and molecular interactions. Topics vary will change with each iteration of the course permitting students to repeatedly enroll in the course but with each covering a different topic. May be repeated up to three credit hours, the maximum applicable toward the degree. P. IC.

BMS 722. Mass Spectrometry and Biomedical Applications. 3 credits.

The Mass Spectrometry and Biomedical Applications course is designed to provide the necessary background for understanding the fundamental principles of mass spectrometry and application of this technique to answer questions in molecular and cellular biology. P. BMS 622.

BMS 730. Advanced Topics in Cell and Molecular Biology. 1-3 credits. FA, SP, SU

This course covers functional aspects of eukaryotic cells including gene regulation/expression, signal transduction, and cell-cell and cell-substrate interactions. Topics vary will change with each iteration of the course permitting students to repeatedly enroll in the course but with each covering a different topic. May be repeated up to three credit hours, the maximum applicable toward the degree. P. IC.

BMS 740. Advanced Topics in Physiology. 1-3 credits. FA, SP, SU

This course covers specific aspects of physiology and pathophysiology of whole organisms and organ systems as well as cellular physiology. Topics vary will change with each iteration of the course permitting students to repeatedly enroll in the course but with each covering a different topic. May be repeated up to three credit hours, the maximum applicable toward the degree. P. IC.

BMS 750. Advanced Topics in Morphology and Anatomy. 1-3 credits. FA, SP, SU

This course covers functional morphology ranging from cellular ultrastructure to gross anatomy and embryology. Topics vary will change with each iteration of the course permitting students to repeatedly enroll in the course but with each covering a different topic. May be repeated up to three credit hours, the maximum applicable toward the degree. P. IC.

BMS 760. Advance Topics in Neuroscience. 1-3 credits. FA, SP, SU

This course integrates the areas of neuroanatomy, neurophysiology, neuropharmacology, and neuropathology at the cellular and organismal level. Topics vary with each iteration of the course permitting students to repeatedly enroll for the course but with each covering a different topic. May be repeated up to three credit hours, the maximum applicable toward the degree. P. IC.

BMS 791. Seminar. 1 credit. FA, SP

This course consists of formal oral presentations and critical discussions of assigned subjects to familiarize students with the nature and extent of research literature, the analysis of research papers, and the collation and presentation of scientific information. This course is repeatable. P. IC.

BMS 792. Journal Club. 1 credit. FA, SP, SU

This course consists of detailed examination of the physiology, cell biology, and molecular biology of the nervous system, with emphasis on mammalian systems. The course will include membrane physiology, ion channels, synaptic physiology, neurotransmitters and receptors, sensory receptors, neural circuits, and advanced techniques. P. IC.

BMS 795. Directed Independent Study. 2 credits. FA, SP, SU

Each student, supervised by faculty members, will pursue in-depth reading and discussions on current research topics of interest to faculty and students. The purpose is to provide an environment whereby the student is introduced to scientific research methods and can improve critical thinking and reading skills as well as exchanging scientific information. P. IC.

BMS 797. Directed Independent Research. 1-9 credits. FA, SP, SU

This course consists of original investigation under supervision and guidance of individual staff members. P. IC.

BMS 799. Master's Thesis. 1-3 credits. FA, SP, SU

This course consists of review of the literature and research data; writing of the thesis. Students must register for this course in any term when engaged in formal preparation of the Master's thesis; however, six credit hours are the maximum applicable toward the degree. P. IC.

BMS 899. Doctoral Dissertation. 3-6 credits. FA, SP, SU

This course consists of review of the literature and research data and the writing of the dissertation. Students must register for this course in any term when engaged in formal preparation of the doctoral dissertation; however, twenty credit hours are the maximum applicable toward the degree. P. IC.

CSP 660. Dreams and Spiritual Growth. 1-3 credits. SU

This course will explore the significance of dreams in discerning spiritual growth. Some attention will be given to the role of dreams in scripture and Christian tradition. The primary aim of the course is to familiarize participants with the psychology of dreaming and with contemporary methods for discerning the religious meaning of one's dreams: in one's own spiritual growth and development as well as in working with dreams in the context of spiritual direction.

CSP 662. Scriptural Foundation Of Christian Spirituality. 3 credits. SU

Introduction to Scripture, especially the New Testament, as the foundation to all Christian Spirituality. Faith, prayer, Holy Spirit, Church, centrality of Christ.

CSP 664. Spirituality of John. 1-3 credits. SU

Course examines themes from writings of John central for spirituality.

CSP 665. Prayer and Priestly Identity. 1-3 credits. SU

This course aims to form participants in a whole-hearted embracing of the distinctive spirituality of the diocesan priesthood as that relates to the unique identity of the diocesan priesthood, so as to help foster a more effective exercise of pastoral authority and charity in the service of the Church.

CSP 666. Centering Prayer And The Experiencing Of God. 1 credit. SU

Contemplative practices such as Lectio Divina and centering Prayer, which directly cultivates the experience of God's presence and extend the interior silence of prayer into daily life. Additional topics include prayer as relationship, the experience of the Dark Night, and fruits of contemplative prayer in daily activity.

CSP 667. Contemplative Theological Reflection. 1-3 credits. SU

Through the development of the skill of contemplative theological reflection, CSP students learn to reflect on their personal and ministerial or work experiences to discern the call of transformation and integration in the midst of the Christian tradition and world realities. This is a personal and group process and takes place in a peer faith setting.

CSP 669. Salesian Spirituality. 1-3 credits. SU

Introduction to the Salesian spiritual tradition co-founded in the 17th century by Francis de Sales and Jane Chantal. Seminal texts such as the Introduction to the Devout Life and the lives of the founders will backdrop discussion of central Salesian themes as resources for contemporary living.

CSP 670. Art and Spirituality. 1-3 credits. OD, SU

With an experiential, hands-on format using watercolor and other art media this course provides an opportunity for right-brain expressions of prayer, spiritual understanding, and experience of God.

CSP 671. Mindful Movement. 1 credit. SU

The integration of body, mind, and spirit is an essential tool for bringing awareness to the self and relationships both spiritual and emotional. As a component part of larger disciplines for spiritual growth and wellness, this course is designed to teach students the fundamental practices of prayerful moving meditation. Through these practices students will develop an understanding of how to integrate this tool into spiritual awareness and spiritual direction.

CSP 672. True Self/ False Self: The Enneagram and Spiritual Transformation. 1 credit. SU

Within the True Self/False Self framework, the Enneagram will be appropriated as a vehicle for spiritual growth and transformation. Topics will also include the Enneagram in Discernment and Spiritual Direction.

CSP 673. Spiritual Dialogue: East Meets West. 1-3 credits. SU

Overview of perspectives and practices from Eastern wisdom that have parallels in Christianity and can deepen prayer experiences, as well as Eastern ideas that challenge Christian beliefs.

CSP 675. Spirituality of the Synoptic Gospels. 3 credits. SU

Study of the spirituality implicit in each of the Synoptic Gospels: Matthew, Mark, and Luke (along with its companion volume, Acts). Focus on God, Jesus, Holy Spirit, discipleship, righteousness, suffering, possessions, community, mission, interpretation of Israel's Scriptures, and narrative as a vehicle for theology and spirituality.

CSP 676. Giving 19th Annotation Retreats. 1 credit. SU

How to give retreats to people in everyday life according to Annotation 19 of the Spiritual Exercises of St. Ignatius.

CSP 677. Spirituality, Psychological Foundations, and Practice of Forgiveness. 1-3 credits. SU

The imperative to forgive is central to Christian identity, discipleship, and building authentic intimacy with God and others. This course explores spiritual, theological, and psychological perspectives on forgiveness. Through journaling, prayer, guided reading/reflection, and class discussion, students will be encouraged to develop, practice, and personally appropriate a spirituality of forgiveness.

CSP 678. Spirituality of Paul. 1-3 credits. SU

A study of the Pauline correspondence to analyze what these letters imply regarding the gospel vision as a way of seeing that leads to a way of being. Special attention to Paul's Jewish background and his use of that tradition to explain Jesus as the climax of the covenant and his way as the fullness of human being; creation, community, cross, new creation.

CSP 679. BioSpiritual Focusing. 1-3 credits. SU

This course will explore, through experiential practice, lecture, and discussion, the dimension of felt meaning carried in the body that, attended to in a caring way, becomes a bridge to deeper understanding and growth in Christian spirituality.

CSP 680. Women and the Bible. 1-3 credits.

Study of select biblical traditions that represent women and/or prescribe women's behavior, with attention to ancient gender constructs; the primary focus will be exploration of diverse women's readings of biblical texts and their implications for Christian spirituality.

CSP 690. Supervision for Spiritual Directors. 1-3 credits.

A workshop for spiritual directors who are interested in acquiring or improving the skills necessary to supervise others in this ministry.

CSP 698. Introduction to Writing for Spirituality. 1 credit.

Through a combination of group classes and individual appointments, the course provides a tutorial in graduate writing for Christian Spirituality. General stylistic concepts are taught and practiced on the students' assigned papers. Tools such as using writing partners, reading text aloud, developing a distinctive writing voice and other important elements of writing analysis, integration and synthesis essays will be introduced and practiced.

CSP 691. Eco Spirituality. 1-3 credits. SU

This course explores environmental spirituality as essential to the fullness of Christian faith. The course studies spirituality and morality with a focus on Catholic social teaching, considers creation care as love of God and neighbor, and equips students with spiritual and actionable practices to faithfully address climate change in the church and society.

CSP 699. Writing for Spirituality. 1 credit.

A course for students which offers an opportunity for individual mentoring in the skills necessary to complete capstone essays in graduate-level English where emphasis is placed on writing that is the fruit of reflection on both academic study and personal appropriation.

CSP 700. Christian Prayer: Ecumenical Breadth and Historical Depth. 3 credits.

This course will introduce students to the historical and contemporary landscape of the Christian spiritual traditions. It will include consideration of the relationship between theology and spirituality and the Christian spiritual life considered in the context of the lively contemporary American interest in spirituality. While the Roman Catholic traditions of prayer and practice will be foregrounded, the ecumenical breadth of Christian spiritual traditions will also be considered. Emphasis will be placed upon the study and practice of various spiritual disciplines, especially forms of communal and personal prayer. In addition, there will be an overview of the major traditions and movements in the history of Christian spirituality. Students should gain an appreciation of their call to ministry and Gospel living in all dimensions of life.

CSP 710. Spirituality and Trauma. 1-3 credits.

Students will explore how traumatic experiences impact Christian spirituality and review the ways in which contemporary theologies of suffering, Christology, and soteriology can and should be trauma-informed. This course will identify Christian ideas and practices that can inhibit or promote healthy forms of post traumatic Christian spirituality.

CSP 715. Marian Spirituality. 1-3 credits. SU

This course will explore "Mary as mother and teacher of the spiritual life," e.g., Mary and the Holy Spirit, Mary's virtues, Mary as first disciple of the Lord, as Servant of the Lord, and as Model of the Church. This course likewise studies the various expressions of Mary's place in the universal call to holiness, e.g., the "Marian thread" in the lives of the Saints, with a special emphasis on the new Saints and Blesseds of Pope John Paul II.

CSP 716. Spirituality of Reconciliation: Global and Social Perspectives. 1-3 credits. SU

Explores biblical, sacramental, theological and spiritual dimensions of Christian reconciliation. Examines global case studies of Christian social reconciliation such as South Africa, Northern Ireland, Rwanda, and the American South. Students will be asked to develop a spirituality of social reconciliation for their own local Christian communities.

CSP 717. Jungian Psychology, Dreams, and Spiritual Growth. 3 credits. SU

This course will explore the relationship between major aspects of Jung's psychological theory and Christian Spirituality. The principal aim of the course is to familiarize participants with basic concepts of Jungian psychology and to assimilate what is most useful in Jung for pastoral practice, one's own spiritual life and development as well as spiritual direction. Some films and fairytales will be used to convey concepts.

CSP 718. A Theology and Spirituality of Conversion. 3 credits. SU

Freedom to respond to the grace of conversion into the likeness of the Son of God is the hallmark of Christian discipleship and the hoped for outcome of spiritual direction in general and the Spiritual Exercises in particular. To balance theory with practice we will examine Ignatius of Loyola's human and spiritual conversion. Students will apply course work to their personal growth and development so as to better prepare for the ministry of spiritual direction.

CSP 719. Catholic Devotions in a Global Context. 1-3 credits. SU

Theological, historical and practical consideration of the rich devotional traditions of the global Catholic Church. Attention given to the role devotions play in the spiritual life, the variety of cultural forms devotions take and preparation of the spiritual guide to discern the place of devotions in a director's life.

CSP 723. Creating a Preached Retreat. 1 credit. SU

This practical course is designed to help a prospective director create a preached retreat experience of two to three or more days based on the dynamic of the Spiritual Exercises of St. Ignatius.

CSP 759. Ignatian Discernment and Synodality: Context, Process, Implementation. 1-3 credits.

This course examines the context, process, and implementation of synodality as a constitutive element of the Catholic Church. It considers the role and impact of Ignatian discernment in the practice of ecclesial synodality first introduced by Pope Francis and continued under Pope Leo XIV.

CSP 761. Liturgical Foundation of Christian Spirituality. 3 credits. SU

An exploration of the Church's liturgical prayer life as an important basis and foundation for Christian Spirituality.

CSP 762. Doctrinal Foundation of Christian Spirituality. 3 credits. SU

This course examines the foundational doctrines of faith, such as, the Trinity, the divine and human Jesus, salvation by Christ, God's activity in history, the Holy Spirit, and explores their relevance for the Christian spiritual journey, including the relationship to God, to all humanity and to the entire created universe.

CSP 764. Foundations and Practices of Christian Prayer. 3 credits. SU

Using classical and contemporary texts in Christian Spirituality, course studies the theology, methods, stages and dynamics of personal prayer and mysticism.

CSP 765. Prayer, Intimacy, And True Christian Growth. 3 credits. SU

The connection between spiritual and human growth, the necessity of keeping a relationship with Christ, and concrete simple ways of doing it each day.

CSP 766. Contemplation In The Christian Tradition. 3 credits. SU

Course examines approaches to contemplation in classical and contemporary texts. Among authors and texts studied are the following: Pseudo-Dionysius, Cloud of Unknowing, Meister Eckhart, Teresa of Avila, John of the Cross. P. CSP 764 or CSP 765 or equiv.

CSP 767. Spanish Mysticism. 3 credits. SU

Study of Ignatius of Loyola, Teresa of Avila and John of the Cross, discussing their spirituality, teachings on prayer, and understanding of human life as a pilgrimage with Jesus, ending only when total union with God is reached. P. CSP 764/THL 764 or CSP 765/THL 765 or equivalent.

CSP 768. History of Ignatian Tradition. 3 credits.

This course covers intersection of world cultures and Ignatian vision of Jesuits from the 16th Century, its spread through missionary work, its development through 5 centuries, suppression and restoration and renewal in the 20th and 21st Centuries. Emphasis on the mission of Education and the faith that does justice.

CSP 769. History of Christian Spirituality. 1-3 credits. SU

Development from post-apostolic age to the present. Some of the classics of Christian Spirituality.

CSP 770. Called To Holiness: The Christian Vocation. 1-3 credits. SU

Saints, ways to sanctity, past and present. The Communion of Saints. NOTE: This course fulfills the requirement for a course in the History of Spirituality.

CSP 772. Vatican II and the Doctrinal Foundations of Contemporary Christian Spirituality. 3 credits.

This course examines the role and impact of the Second Vatican Council on the foundational doctrines of faith, such as, the role of Scripture, Theological Anthropology, Christology, Soteriology, Ecclesiology, Pneumatology, and explores their relevance for the Christian spiritual journey.

CSP 773. The Theology of the Spiritual Exercises of St. Ignatius. 3 credits. SU

Theology, interpretations, commentators, structure, with practical applications. Students will draw greater benefit from this course if they have a prior experience of the Spiritual Exercises either in an individually directed silent retreat or an extended retreat in daily life.

CSP 776. Discernment of Spirits: Theory and Practice. 3 credits. SU

Study of the tradition of discernment in the Church with special emphasis on the rules for discernment of spirits in the Spiritual Exercises and the application of these to Christian life and practice.

CSP 777. Spirituality and Catholic Social Teaching. 3 credits.

The Catholic tradition insists that spirituality and social ethics are integrally related such that one is impoverished without deep connection with the other. Informed by that insight, this course explores the relationships between Christian spirituality and Catholic Social Teaching. Texts include essays from leading theologians and documents from the magisterium. Topics include the relationship between spirituality and ethics, conscience, methods in Catholic social ethics, human life and dignity, preferential option for the poor and vulnerable, rights and responsibilities, common good and solidarity, economic justice, immigration, peace and war, and ecology and climate change.

CSP 779. Spirituality and Social Concerns. 3 credits. SU

Reflections on the practice of spiritual direction, retreat leadership, and other pastoral ministries in light of themes of justice, peace and solidarity in scripture, Christian history, Catholic social teaching, and human experience. Investigation of how the reality of social injustice affects the private and public dimensions of the spiritual life. Emphasis on personal appropriation and leadership development so that students may integrate knowledge that gain into the ministries.

CSP 780. Introduction to Counseling for Spiritual Directors. 3 credits. SU
Theory and practice of the dynamics of personal counseling. Analysis of the likenesses and differences between spiritual direction, spiritual counseling, pastoral counseling, and counseling. Helping methods based on Scripture and personality sciences. Practical acquisition of facilitating behaviors of understanding and listening.

CSP 781. Pre-Practicum in Spiritual Direction and Directed Retreats. 3 credits. SU

Preparation for work in spiritual direction and in giving directed retreats. Students must be receiving spiritual direction themselves for at least two years and also have made at least one eight-day directed retreat. P. CSP courses including CSP 773; CSP 780 or equiv.; and prior consent of Coordinator of Practica; P or CO: CSP 776.

CSP 782. Post-Practicum in Spiritual Direction and Directed Retreats. 3-4 credits. SU

Follows a year of receiving supervision in offering spiritual direction and giving directed retreats. A deepening of knowledge and skills needed to offer spiritual direction and directed retreats. P. CSP 781.

CSP 784. The Twelve Steps And The Spiritual Exercises Of St. Ignatius. 1-3 credits. SU

Course examines the Twelve Steps of Alcoholics Anonymous against the backdrops of the Spiritual Exercises. First half of class is an experience of meeting on one of the steps; second half is reflection on the step in light of the Spiritual Exercises.

CSP 785. Psychological Dynamics Of Spiritual Growth. 3 credits. OD, SU

This course seeks to develop a comprehensive overview of contemporary authors who have developed perspectives on the interface between psychology and spirituality. Such authors will include: Merton, Nouwen, Rupp, and van Kaam.

CSP 786. Family Spirituality. 1-3 credits. OD, SU

Designed for both those who are familial and those who minister to families. Key questions: What are the elements of a spirituality derived from within the experience of family? What is the relationship between such a spirituality and the classic traditions of Christian spirituality? How do the family ("the domestic church") and the wider church community serve, enrich and enable each other?.

CSP 787. Spiritual Direction Practicum. 1 credit.

Having completed twelve credit hours in prerequisite courses for the Spiritual Direction - Directed Retreat Certificate, students put their learning into practice in the Spiritual Direction Practicum. Under the direction of a trained Supervisor, the spiritual direction intern meets with at least three directees for nine months between August and May. This course must be taken twice, for a total of 2 credits, during the fall semester and the subsequent spring semester.

CSP 788. Directed Retreat Practicum. 1 credit.

Students who have completed the Spiritual Direction Practicum are prepared for the Directed Retreat Practicum. Under the direction of a trained Supervisor, the Directed Retreat Intern meets with at least two directees during an 8-day directed retreat.

CSP 789. Thomas Merton's Contemplative Vision. 1 credit. SU

The relevance of Merton for contemporary spirituality. Merton in context of the American and international experience: his life, writing and thought as guidelines for living the Gospel today. Special attention to themes of True Self, Contemplation and Non-violence.

CSP 790. Spiritual Formation. 1-3 credits. OD

The nature and dynamics of spiritual formation, emphasizing personal developmental aspects of spiritual growth. Practical aspects of the spiritual life: spiritual identity, spiritual consciousness, holistic spirituality. Theoretical perspective on formative relations in structured situations: religious formation, seminary formation, spiritual formation in parishes. Formation issues: spiritual growth through stages of the life cycle, sexuality and chastity, conflict and community, suffering and death, work and ministry.

CSP 791. Spirituality and Sexuality. 1-3 credits. OD, SU

As body-persons, all men and women are called to integrate the various dimensions of our human existence within a thought out/lived out perspective, i.e., a spirituality. For various historical, cultural, and religious reasons incorporating our sexuality can be challenging, even problematic. Through lecture, guided reading/reflection, class discussion, and writing, students will be encouraged to develop their personally meaningful spirituality of sexuality.

CSP 792. MA Integrating Thesis. 3 credits.

This course is designed to facilitate and guide the writing of the capstone MA integrating thesis, which is the culminating requirement of the Master of Arts, Major in Christian Spirituality degree. P. 30 credit hours of CSP MA required courses and in the final semester of the program.

CSP 793. Directed Independent Readings. 1-3 credits. OD, SU

To be arranged. P. DC and IC.

CSP 795. Directed Independent Study. 1-3 credits. OD, SU

To be arranged. P. DC and IC.

CSP 797. Directed Independent Research. 3 credits. OD, SU

To be arranged. P. DC and IC.

COU 603. Action Research in School Counseling. 3 credits.

This class introduces the basic elements of Educational Research with a specific focus on Action Research in the school setting. Students will be introduced to the Institutional Review Board (IRB) and an ethic of working with Vulnerable Populations. Students will start conceptualizing a small scale study.

COU 604. Issues in Child and Adolescent Development for School Counselors. 3 credits.

This class is a consideration of child and adolescent development specifically for the school counselor. The course also focuses on preventive interventions that keep children and adolescents on the path to normal physical, cognitive, and social/emotional development.

COU 605. Individual and Program Assessment in School Counseling. 3 credits.

This class will focus on the ethic of: selection, administration, score, interpretation, and communication of test results in the school counseling setting. Individual and program assessment will be covered.

COU 606. Theoretical Perspectives in School Counseling. 3 credits.

An overview of counseling and career development theories to help students develop their theoretical orientation to school counseling.

COU 609. Individual Planning and Counseling Techniques for School Counselors. 3 credits.

This class provides the student with the opportunity to demonstrate the specific skills and tools required within school counseling programs for individual planning and counseling. In addition, students will counsel and offer assistance to an individual student within the school setting.

COU 613. Foundations of School Counseling. 3 credits.

Provide orientation to professional school counseling using the ASCA national Model and ASCA Ethical Model.

COU 617. Practicum I: Introduction to School Climate and Procedures. 3 credits.

COU 617, COU 618, COU 619, and COU 620 - Practicums 1-4 are required of students who enter the program without a teaching certificate and require students to accrue a total of 100 hours in a school setting by the end of the first year in the program. Practicum hours will provide student with required tasks to acquaint them with the culture of the school.

COU 618. Practicum 2: Trends in School Policies and Practices. 3 credits.

COU 617, COU 618, COU 619, and COU 620 - Practicums 1-4 are required of students who enter the program without a teaching certificate and require students to accrue a total of 100 hours in a school setting by the end of the first year in the program. Practicum hours will provide student with required tasks to acquaint them with the culture of the school.

COU 619. Practicum 3: Curriculum, Instruction, and Assessment. 3-4 credits.

COU 617, COU 618, COU 619, and COU 620 - Practicums 1-4 are required of students who enter the program without a teaching certificate and require students to accrue a total of 100 hours in a school setting by the end of the first year in the program. Practicum hours will provide student with required tasks to acquaint them with the culture of the school.

COU 620. Practicum 4: Differentiated Learning: Instruction, Classroom Management and Special Education. 3-4 credits.

COU 617, COU 618, COU 619, and COU 620 - Practicums 1-4 are required of students who enter the program without a teaching certificate and require students to accrue a total of 100 hours in a school setting by the end of the first year in the program. Practicum hours will provide student with required tasks to acquaint them with the culture of the school.

COU 660. Group Counseling Approaches for Children and Adolescents. 3 credits.

An overview of the knowledge and skills necessary to conduct successful small and large group counseling for children and adolescents.

COU 663. Diagnosis and Mental Health Issues in Children and Adolescents. 3 credits.

This class will introduce the task of using DSM principles to conceptualize a diagnostic impression for children and adolescents. The diagnostic impression is the second step after assessment in the continuum of care and treatment planning.

COU 664. Issues in Elementary School Counseling. 3 credits.

This class addresses the critical issues that permeate school counseling today. Issues revolve around the areas of academic success, career exploration, and personal/social development. These topics are related to the counselor who serves the elementary school setting.

COU 665. Issues in Secondary School Counseling. 3 credits.

This class addresses the critical issues that permeate school counseling today. Issues revolve around the areas of academic success, career exploration, and personal/social development. These topics are related to the counselor who serves the secondary school setting.

COU 667. Social Justice and Diversity in School Counseling. 3 credits.

This class will focus on cultural competence counseling in school settings. With the changing demographics and immigration/migration dynamics taking place locally, nationally, and internationally, students will be introduced to the diverse nature of students and their needs.

COU 670. Selected Topics in Counseling. 1-3 credits. SU

Theoretical and applied aspects of counseling as selected by the designated instructor.

COU 682. Internship In Elementary School Counseling. 3 credits. FA

This class culminates the students' clinical experience in an elementary school counseling setting. Students will demonstrate competence in the following areas: Individual, Group counseling, Individual Student Planning, Developmental Classroom Guidance, and Consultation.

COU 683. Advanced Internship in Elementary School Counseling. 3 credits. SP

This is a continuation of COU 682 and will culminate in the accumulation of the hours and experiences necessary for program completion.

COU 684. Internship in Secondary School Counseling. 3 credits. FA

This class culminates the students' clinical experience in a secondary school counseling setting. students will demonstrate competence in the following areas: Individual, Group counseling, Individual Student Planning, Developmental Classroom Guidance, and Consultation.

COU 685. Advanced Internship in Secondary School Counseling. 3 credits. SP

This is a continuation of COU 684 and will culminate in the accumulation of the hours and experiences necessary for program completion.

COU 793. Directed Independent Readings. 1-3 credits. FA, SP

Intensive reading in an area as approved by the department. P. DC.

COU 795. Directed Independent Study. 1-3 credits. FA, SP

Independent research on a topic designed by the student with the approval of an adviser from the department. P. DC.

COU 797. Directed Independent Research. 1-3 credits. FA, SP

Intensive research in an area as approved by the department. P. DC.

COU 799. Master's Thesis. 1-3 credits. FA, SP

Research in connection with the preparation of the Master's thesis. Students must register for this course in any term when engaged in formal preparation of the Master's thesis; however, six credit hours are the maximum applicable toward the degree.

ECO 725. Seminar in Comparative Economics Systems. 3 credits.

Critical examination of modern variants of market-type and centrally-planned economies, commencing with a review of the basic problems and principles applicable to all socioeconomic systems, and proceeding with a study of models, cases, and selected aspects of the existing forms of socialism and capitalism. Consideration is given to the interplay of the level of economic development with related cultural, technological, and environmental factors in determining the structural, operational, and performance characteristics of politico-economic systems. Deviationist tendencies within the 'isms' and the related 'Convergence Hypothesis' are viewed in conclusion. P. ECO 518.

ECO 779. Seminar In International Economics. 3 credits.

Directed individual research and reports on approved topics in advanced theory, problems, and policies in international trade and finance. P. ECO 538.

EDL 605. Foundations of Catholic Education. 3 credits. OD, SU

This course focuses on the history and philosophy of Catholic schools. Students will study how Catholic schools have evolved over time as well as examine how their history might inform their future. Church documents will serve as a primary source for student engagement of Catholic school identity, mission, and philosophy, especially as it plays out in our 21st century context. Key concepts include: Vatican II, mission-centered and faith leadership, pluralism and diversity, and school charism.

EDL 607. School Improvement. 3 credits.

This course addresses using and aligning the processes for continuous school improvement. Key concepts in this course include; the importance of a shared mission, vision, values, and goals, using data to develop a plan, role of professional development in school improvement, and monitoring and implementation of school improvement plan. Students will review and develop a school improvement plan. The change process will be discussed in order to help students understand how to implement continuous improvement efforts effectively. P. DC.

EDL 609. Curriculum, Instruction, and Assessment, Part I. 3 credits.

This course addresses developing and leading comprehensive rigorous curricular and instructional programs. Key concepts in this course include; alignment of curriculum, instruction and assessment, promoting effective use of technology to support learning, effective pedagogy that meets needs of all learners, and using culturally sensitive curriculum and assessments. Students will review national standards for public and Catholic schools.

EDL 610. Curriculum, Instruction, and Assessment, Part II. 3 credits.

This course addresses effective instruction, literacy practices, and using formative assessments to support learning. Key concepts in this course include; gradual release of responsibility, using data to respond to student needs, effective literacy instruction, and culturally sensitive curriculum and assessments. Students will analyze instruction in practice order to identify strengths and areas for teacher growth.

EDL 612. Special Education Leadership. 3 credits.

This course provides a comprehensive overview of the field of special education and special education laws for regular education administrators in elementary and secondary schools. The course covers principles of effective leadership of special education programs with a focus on practices that promote education in the least restrictive environment. P. DC.

EDL 613. Intervention Strategies. 3 credits.

This course addresses procedures, and systems in elementary and secondary schools that ensure academic and social success for students. Key concepts in this course include effective literacy intervention, effective math interventions, progress monitoring, and connecting intervention to the regular classroom.

EDL 614. Leading Professional Learning Communities. 3 credits.

This course addresses how to develop and promote a collaborative environment in elementary and secondary schools and sustains high expectations for all. Key concepts in this course include creating high impact/high functioning teams, developing teacher leaders, using protocols to analyze student work, and creating the infrastructure for PLCs. Students will lead and/or participate in a PLC and critique the team's effectiveness. P. DC.

EDL 615. Student Centered Coaching. 3 credits.

This course addresses how to use a student-centered coaching model to improve outcomes for students in elementary and secondary schools. Key concepts in this course include coaching cycles, data collection, talk moves for coaching, and adult learning needs.

EDL 616. Analyzing Student Work. 3 credits.

This course addresses how to use a variety of protocols to analyze student work in elementary and secondary schools. Key concepts in this course include facilitation skills when using protocols, how to intervene when protocols are not working, and identifying which protocols are most effective in given settings.

EDL 619. School Culture. 3 credits.

This course investigates how to cultivate a school culture that supports the school's mission and goals. Key concepts in this course include school climate, relationships, norms, traditions, parent and community partnerships, diversity, and school context. Students will practice strategies for analyzing, aligning, strengthening, monitoring, and changing school culture as well as for engaging parents, other stakeholders, and the broader community. P. DC.

EDL 622. School Law. 3 credits. FA

This course provides background in Constitutional law and statutes affecting public and private schools. Key concepts include; legal and ethical rights and responsibilities with respect to issues such as religion and schools, student discipline, negligence, teacher hiring and firing, and social media. Catholic school students will explore Canon Law. Students will use case studies and issues in their school context to apply legal principles and practice ethical decision making.

EDL 624. Differentiated Supervision for Professional Growth. 3 credits.

This course addresses how to increase student achievement in elementary and secondary schools by developing the individual and collective capacity of staff. Key concepts in this course include differentiating professional learning opportunities, using feedback to promote growth, and aligning supervision practices to mission and the school improvement plan. Students will observe in classrooms and conduct post-observation conferences. P. DC.

EDL 626. Strategic Resourcing. 3 credits. FA, SP

This course examines the means through which public and private acquire, spend, and account for resources (e.g., finances, personnel, facilities). Key concepts include funding sources, budget management and planning, resource allocation, stewardship, and equity. Catholic school students will explore the topics of development and enrollment management.

EDL 627. Strategic and Political Leadership in Catholic Schools. 3 credits. SP, SU

This course addresses the strategic and political dimensions of Catholic educational leadership. Topics include strategic planning, governance, networks and partnerships, and political advocacy. The course stresses entrepreneurial leadership, innovation, collaboration, and advocacy in positioning Catholic schools for the future.

EDL 635. Internship I in Teacher Leadership. 3 credits.

This course provides students with the opportunity to apply learning from their courses in an elementary or secondary school setting. Students will conduct a student-centered coaching cycle and engage in other leadership activities under the supervision of the mentor principal.

EDL 639. Internship I in Elementary School Administration. 3 credits.

This course provides students with the opportunity to apply learning from their courses in a (elementary or secondary) school setting. Students will identify an issue in a school setting and will develop and implement plans in the school to address the issue. Growth and development issues for early childhood and elementary age students will be considered as students implement developmentally appropriate strategies. Students will engage in this and other leadership activities under the supervision of their mentor principal as well as their university-assigned executive coach and professional learning community. Students will supervise and assist with special education programs.

EDL 640. Internship I in Secondary School Administration. 3 credits.

This course provides students with the opportunity to apply learning from their courses in a (elementary or secondary) school setting. Students will identify an issue in a school setting and will develop and implement plans in the school to address the issue. Growth and development issues for early childhood and elementary age students will be considered as students implement developmentally appropriate strategies. Students will engage in this and other leadership activities under the supervision of their mentor principal as well as their university-assigned executive coach and professional learning community. Students will supervise and assist with special education programs.

EDL 643. Internship II in Elementary School Administration. 3 credits.

This course provides students with the opportunity to apply learning from their courses in a (elementary or secondary) school setting. Students will identify an issue in a school setting and will develop and implement plans to address issues. Growth and development issues for secondary age students will be considered as students implement developmentally appropriate strategies. Students will engage in this and other leadership activities under the supervision of their mentor principal as well as their university-assigned executive coach and professional learning community. Students will supervise and assist with special education programs.

EDL 644. Internship II Secondary School Administration. 3 credits.

This course provides students with the opportunity to apply learning from their courses in a (elementary or secondary) school setting. Students will identify an issue in a school setting and will develop and implement plans to address issues. Growth and development issues for secondary age students will be considered as students implement developmentally appropriate strategies. Students will engage in this and other leadership activities under the supervision of their mentor principal as well as their university-assigned executive coach and professional learning community. Students will supervise and assist with special education programs.

EDU 500. Literacy Assessment & Intervention. 3 credits. FA, SP

Focus of the course is on meeting the variety of individual educational needs that confront a teacher of reading. Techniques, methods, materials, and organizational systems that can be used within the framework of daily instruction. Students participate in a practicum during class. P. EDU 566.

EDU 503. Foundations of Education. 3 credits. SU

EDU 503 serves as an introduction to the educational profession and Creighton University's graduate program in teaching. Students will acquire a basic understanding of contemporary topics in education, professional ethics, and legal responsibilities. The course emphasizes educational history and philosophy, as well as Ignatian principles of faith and justice.

EDU 510. Growth and Development. 3 credits. (Same as PSY 510)

This course covers the theory and research literature of human development in every phase of life. Physical, cognitive, language, motor, personality, social, affective, moral, and spiritual development are considered as the course seeks to prepare students for roles in school, counseling, or therapeutic settings. Please note: This course does not fulfill any of the requirements of the psychology major. P. EDU 170 or PSY 201. CR: Education major or minor.

EDU 525. Inclusion and Differentiation in the Elementary Classroom. 3 credits. FA, SP

This course is designed to acquaint the regular elementary or secondary classroom teacher with inclusion and differentiation strategies. This includes the characteristics of students with mild/moderate disabilities. The course highlights discussions of diagnostic and remedial techniques for students with disabilities in the general classroom. Ethics in the school setting will also be explored. Students complete a 15-20 hour practicum under supervision of a special education teacher. P. Ethics; CR: Education major or minor.

EDU 535. Human Relations and Cultural Diversity. 1 credit. FA, SP, SU

This graduate-level course explores the complexities of human relations and cultural diversity within educational settings. Emphasis will be placed on recognizing and addressing biases, fostering inclusive environments, and developing effective communication strategies for engaging with diverse individuals and groups. Students will focus on the areas of cultural understanding, interpersonal communication, and classroom integration through the lens of respecting human dignity and individual rights. This course meets the human relations requirement of the Nebraska Department of Education.

EDU 541. Curriculum Design For English As A Second Language. 3 credits. OD

This course is designed to provide students with the knowledge and skills necessary for understanding and designing curricular models for P-12 students who are acquiring English as their new language. Students will learn theories of second language acquisition, English as a Second Language (ESL) legislation and issues, models of curriculum design, and language assessment.

EDU 542. Methods In English Language Learning. 3 credits. OD

This course is designed to provide students with the knowledge and skills necessary for using appropriate strategies and techniques with P-12 students who are acquiring English as their new language. Students will learn theories of second language acquisition, conduct language assessments, plan and implement lessons using bilingual/bicultural materials, and understand how to work with culturally/linguistically diverse families and interpreters.

EDU 543. Practicum In English Language Learning. 3 credits. OD

This course is the capstone for the teaching endorsement "English as a Second Language." Students will work in a P-12 school setting with students whose native language is not English. This course meets the certification requirements of the Nebraska Department of Education for a supplemental endorsement.

EDU 544. Framework of World Languages and Cultures. 3 credits. OD

Students will examine and compare cultural and language frameworks from world regions in order to understand the cultural and/or language dissonance experienced by limited or non-English speaking individuals in the United States.

EDU 547. Teaching Residency in Grades 7-12. 3 credits.

The course instructor will serve as an offsite supervisor for teacher residents while they complete a full-time residency in an accredited school. The instructor will work with the onsite mentor teachers to assist residents with putting into practice the specific skill set acquired in previous course work. P. EDU 535, EDU 551, and EDU 583.

EDU 548. Differentiating Instruction. 3 credits. SP

Teacher candidates will learn how to identify and support students with special learning needs using assessment data and differentiated instruction. Topics include history of special education, IEP referral process, scaffolding techniques in lesson planning, and case studies. Application of skills will occur during a practicum experience. This course meets the Nebraska Department of Education special education requirements. CR: Education Major.

EDU 551. Curriculum, Instruction and Assessment. 3 credits. SU

The teacher candidate will be introduced to how to develop unit plans and daily lessons. Student will learn how to develop and use learning intentions and success criteria that help identify if what has been taught was learned. Emphasis will be placed on aligning curriculum with standards, promoting student-centered learning, and utilizing assessment data to inform instructional decision-making. Depending on the student's experience, a practicum may be required as part of the course. The determination is made by the program director and instructor.

EDU 556. Foundations and Best Practices of Early Childhood Education. 3 credits.

An in-depth study of early childhood development theory (birth through age 8), principles and current research including both typical and atypical development and the implications this has for early childhood education. Study will extend to observational strategies and application of growth and development data in decision making for developmentally appropriate practice. A total of 15 clock hours of field experience will be required in conjunction with EDU 556.

EDU 557. Investigating Critical and Contemporary Trends and Issues in Early Childhood Education. 3 credits.

An in-depth study of critical trends and issues that have an impact on early childhood education today. These include but are not limited to family involvement, cultural diversity, differentiated instruction technology, and the benefits of nature and outdoor play.

EDU 558. Content and Methods Specific to Early Childhood Education. 3 credits.

This course is designed to prepare candidates to use their knowledge of academic disciplines to design, implement, and evaluate experiences that will promote positive development and learning in the content areas of math, science, social studies, health and religion for each and every young child. Focus will be placed on the use of inquiry tools, knowledge of content, and developmentally appropriate teaching strategies and methodologies to design, implement, and evaluate meaningful and challenging curriculum that promotes positive outcomes for all early learners. Emphasis will also be placed on the candidate's use of knowledge acquisition and self-reflection to deepen and improve teaching practices. This course will include a 10 hour field experience, which will allow the students to put into practice the skills they have learned throughout this course.

EDU 559. Significant Concepts for Early Childhood Education. 3 credits.

This course explores the importance integrating literacy, play, the arts, and social/emotional teaching practices in programs for children birth to age 8. Emphasis is placed on understanding the principles and practices that support young children's emerging literacy. It links the significance that oral language and early exploration has on later reading and writing skills. Focus will be placed on the role of play in influencing cognitive, social, emotional, physical, and language development. The course also identifies how the arts build interest, motivation, and learning in all curriculum areas. This course will include a 10-hour field experience, which will allow the students to put into practice the skills they have learned throughout this course.

EDU 560. Assessment, Observation, Screening and Evaluation in Early Childhood Education. 3 credits.

This course is designed to ensure candidates understand that child observation, documentation, and other forms of assessment are central to the practice of all early childhood professionals. In this course students will learn about the uses of assessment, systematic observations, screening, and other effective assessment strategies in responsible and ethical ways. As well, the students will learn how to use these assessment practices to positively influence the development of every child. To aid in the professional growth of the students this course will focus on fostering reflective practices, and special attention will be paid to the need for partnerships with parents and colleagues. Additionally, this course will allow candidates to become familiarized with some of the commonly used teacher assessment methods, in the hopes that they will be equipped to use these to improve their own teaching practices. This course will include 10 hours of field experience, which will allow students to observe and participate in various assessment practices. CO: EDU 561.

EDU 561. Becoming an Early Childhood Teaching Professional. 3 credits.

This course is designed to prepare candidates to identify and conduct themselves as members of the early childhood profession. This course will place an emphasis on ethical guidelines and other professional standards related to the early childhood practice. It will encourage students to use reflection, collaboration and critical thinking skills as they pursue and attempt to assimilate new knowledge into their experiences with early childhood education. As the candidates gain an identity as an early childhood professional they will be encouraged to engage in advocacy for the young child. This course will include a 45-hour practicum, which will allow the student to put into practice all of the knowledge gained in previous ECE courses. P: EDU 556, EDU 557, EDU 558, and EDU 559. CO: EDU 560.

EDU 565. Methods of Teaching Language Arts In Elementary School. 3 credits. FA

Emphasizes content and methods in teaching language arts in elementary and middle school. Students complete a minimum of 32 hours of practicum in a school classroom. CO: EDU 566.

EDU 566. Methods of Teaching Science of Reading in the Elementary School. 3 credits. FA

Designed to assist in understanding the process of developmental reading and to acquaint the student with the newest as well as the traditional tools for teaching reading. P: EDU 211; CO: EDU 565. CR: Education major.

EDU 567. Methods of Teaching Social Studies in Elementary School. 3 credits. FA

Emphasizes content and methods in teaching social studies in elementary and middle school.

EDU 568. K-8 Math Content and Pedagogy. 3 credits. SP

K-8 Math Content and Pedagogy is designed for pre-service teachers and provides an in-depth exploration of essential K-8 mathematics content. The course emphasizes developmentally appropriate instructional strategies tailored to elementary and middle school students. This competency-based course prioritizes critical thinking, problem-solving, and interactive teaching methods ensuring that future educators are equipped to create engaging and effective learning environments. Some other key components of the course are a thorough evaluation of current curricular materials commonly used by school systems, the strategic use of assessment to inform and guide instruction, and student math discourse. Students are required to complete a 25-hour practicum as part of this course. Satisfies Magis Designation: Oral Communications. P: Oral Communication course; CR: Education major.

EDU 569. Methods of Teaching Science in Elementary School. 3 credits. SP

Emphasizes content and methods in teaching science in elementary and middle school. CR: Education major.

EDU 572. Action Research and Assessment for Teachers. 3 credits. FA

Course emphasizes the fundamentals of educational research and the development, implementation, and analysis of formative and summative assessments utilized within PK-12 schools. Students will design and conduct a small scale assessment/research project within a PK-12 classroom.

EDU 575. Contemporary Teaching Methods in Your Content Area, Grades 7-12. 3 credits. FA

EDU 575 is designed to introduce the pedagogical tools necessary for first-semester teachers to build confidence in methods of classroom instruction. The course combines pedagogical theory, content-specific application, and reflective practice to develop students' ability to implement strategies for building classroom community, enhancing student engagement, and aligning course objectives with lessons and assessments. Content-area methods explored and developed in the course are concurrently applied in their classroom field placements.

EDU 580. Literacy Strategies. 3 credits.

This course will equip secondary teachers with essential literacy strategies to enhance students' reading fluency and comprehension across content areas. Students will learn about the Science of Reading and ways to address barriers and adapt strategies for diverse learners.

EDU 583. Classroom Management. 3 credits. SU

Teacher candidates will learn how to facilitate student learning by establishing positive student relationships. The course emphasizes the use of behavioral expectations, reinforcement, procedures, and student responsibility both for actions and for reconciliation.

EDU 584. Advanced Instructional Practices. 3 credits.

This seminar-style course is designed to develop teachers' skills in enhancing learning for all students by engaging them in activities that respond to their particular learning needs, strengths, and preferences. Instructional practices for differentiated instruction and culturally responsive pedagogies will be covered. Graduate students will learn about and engage in the processes of educational research.

EDU 586. Special Topics in Education. 2-3 credits. OD

Course designed to deal with current theory, research and practices in a specific area, e.g., social studies education. Faculty will provide a subtitle and a brief description for inclusion in the Schedule of Courses.

EDU 587. Methods Of Teaching Religion In Elementary School. 3 credits. OD (Same as THL 587)

The course is designed to prepare students to effective religious educators in Catholic elementary schools. The course content will encompass the four dimensions of religious education: message, community, service and worship. Students will not only become acquainted with methods and materials for teaching religion, but they will also gain experience planning liturgical celebrations.

EDU 590. First Year Teacher Induction Workshop. 1-3 credits. OD

Designed to ease the isolation and provide continuity between the theory of pre-service preparation and the realities of teaching. Assistance provided in acquiring additional knowledge and instructional skills, combating the effects of isolation, and becoming integrated into a school community. This course is repeatable up to 3 credit hours.

EDU 591. Clinical Practice (Student Teaching). 1-14 credits. FA, SP

This course provides students with the opportunity to apply theoretical knowledge and pedagogical skills in authentic classroom settings. Students work closely with mentor teachers and university supervisors while engaging in practical teaching, observation, reflection, and collaboration. Emphasis is placed on developing and refining instructional strategies, classroom management techniques, and assessment practices. EDU 591 meets the Nebraska Department of Education's clinical practice requirement. Satisfies Magis: Designated Ethics. CR: Elementary and Secondary Teaching majors, DC.

EDU 593. Clinical Practice (Student Teaching) Seminar. 1 credit. FA, SP

Practical experience in the observation and conduct of classroom teaching and related activities. This experience is obtained under the immediate supervision of a fully-experienced cooperating teacher and a University supervisor. Application to the Director of Field Experiences for all student teaching must be made before February 1 for the Fall Semester and October 1 for the Spring Semester.

EDU 595. Restorative Justice in the Eyes of our Youth. 3 credits.

An introduction to the nature of restorative justice, community engagement, and developmental relationships, in a classroom setting, on a societal level, and in an interpersonal context. This course will survey the interplay between various systems that lead to injustice, specific behavior patterns, as well as analyze destructive and constructive human emotions, developmental relationships, and behavior. Students will be placed in metro area locations assisting youth. Students will use this practicum as an Academic Service Learning experience to help serve the community and put their Creighton and course learnings to practice. P. Critical Issues in Human Inquiry course.

EDU 600. Principles Of Curriculum Construction For Elementary And Secondary Schools. 3 credits. FA

Course designed to prepare educators for instructional leadership in identifying curriculum determiners, planning procedures, and evaluation processes for both elementary and secondary schools. P. DC.

EDU 601. Instructional Technology for the Classroom. 3 credits. SU

This course will train teachers to develop a more robust, engaging, and student-centered curriculum through the use of educational technology. We will focus on practical uses of technology in the classroom through simulations and lesson development. Students will build a personal learning network (PLN) to facilitate professional collaboration beyond this class. P. Admission into Education Department; Graduate standing.

EDU 602. Faith Leadership in Catholic Schools. 3 credits. OD

This course provides an introduction to the teachings of the Catholic Church in these areas: creed, liturgy and Sacraments, Christian morality, Christian prayer and spirituality, Catholic social teaching, and Scripture. This course will help leaders apply Catholic Church teaching to contemporary Catholic school issues, build faith community, and foster faculty/staff formation for mission. P. DC.

EDU 603. Educational and Managerial Leadership in Catholic Schools. 3 credits. OD

This course is designed to investigate educational leadership using the Catholic mission of the school as a focus and integrating principle. Students will also explore pertinent managerial leadership topics such as site-based management, models of shared leadership, school finance and the stewardship of school resources, and legal issues as they apply to the Catholic school setting, including safety. P. DC.

EDU 606. Strategic and Political Leadership in Catholic Schools. 3 credits. OD

This course addresses the strategic and political dimensions of Catholic educational leadership. Topics include strategic planning, governance, networks and coalitions, political advocacy, funding, public relations, and marketing. The course stresses innovation, collaboration, and advocacy in positioning schools for the future. Course assignments emphasize practical application of theory and best practices. P. DC.

EDU 616. Consulting Techniques. 3 credits. OD

Course designed to acquaint students with models for providing consultation to schools, teachers, and students. Distinction between medical and consultation models is provided, and goals for consultant behaviors and the culture of the school are discussed. Emphasis on problem-solving, collaborative consultation, curriculum-based measurement, and precision teaching.

EDU 617. Leadership in the Administration of Educational Technology. 3 credits. SP

The course gives the school principal knowledge of technology ethics, laws, and standards; skills in evaluating hardware and software, as well as facility and security issues; perspectives on emerging trends in educational technology; and strategies in formulating an effective technology plan for a school to improve student learning and school management. P. DC.

EDU 620. Practical Aspects Of School Law For Teachers And Administrators. 3 credits. FA, SP

The course provides background in Constitutional and statute law affecting the rights and responsibilities of public and private school educators with respect to students, parents, school policies, and working conditions. Abundant opportunities for application of legal principles are staples of this course. P. DC.

EDU 623. Managing the School Climate. 3 credits. OD

Examination of the factors and strategies that create a school environment conducive to learning. Emphasis on the leadership role of the administrator in establishing a safe and productive learning climate. P. DC.

EDU 624. Supervision of Learning. 3 credits. FA

Reviewing and appraising the instructional process; organizing the supervision program with attention to the leadership role of the principal; developing in-service programs and promoting professional growth. P. DC.

EDU 625. Practical Knowledge Of School Finance For Teachers And Administrators. 3 credits. SP

The course examines the means through which public and private schools acquire, spend, and account for resources. Related legal and ethical considerations are also applied in course projects and exams. P. DC.

EDU 631. Leadership in the Administration of Human Resources in Education. 3 credits. OD

EDU 633 requires students to learn and apply the theories and processes essential to effective leadership of the human resources function in PK-12 schools. Students will learn theories of human and organizational needs and apply them to public and private school settings. P. DC.

EDU 652. Differentiating High School Teaching. 3 credits.

Students will utilize previous experience in grades 7-12 teaching to identify their skills and growth areas in differentiating teaching. Students will then expand on existing skills and develop new skills so that all students in their classrooms can reach identified learning outcomes.

EDU 680. New Ignatian Educator Seminar I. 1 credit. FA

New Ignatian Educator Seminar I is a formation-based online class designed for first-year Catholic School teachers in the Magis Catholic Teacher Corps integrating professional practice, emotional resilience, community living formation, and Catholic educator identity development. Participants engage in structured reflection, the integration of instructional coaching, faith-sharing experiences, and retreat participation. The emphasis is on developing sustainable teaching habits, holistic formation, reflective practice skills, and an emerging leadership identity. CR: Open only to students in the Magis Catholic Teacher Corps.

EDU 684. Catholic Education: Identity, Inclusion, and Pedagogy in Practice. 3 credits.

This eight-week graduate online course introduces teachers to the foundations of Catholic education. Through the lenses of Catholic school history, Catholic school identity, restorative justice, English language learners, and special education, participants will deepen their understanding of Catholic schools as communities of faith, learning, and justice. Ignatian spirituality, the Ignatian Pedagogical Paradigm (IPP), and Catholic Social Teaching (CST) are woven throughout as guiding frameworks for reflection, discernment, and practice. CR: M.ED. degree majors and Magis Teacher Corps.

EDU 685. Magis Capstone: Forming Ignatian Educators. 3 credits.

Course serves the capstone experience for Magis Catholic Teacher Corps participants' education and training. Students reflect on principles and practices of teaching and complete a culminating artifact of work. Coursework focuses on the Ignatian Pedagogical Paradigm, Magis' pillars of formation, and components of the program's graduate at Graduation.

EDU 692. Cultural Issues in Education. 3 credits. SU

Course emphasizes the global dimensions in education dealing with multi-cultural issues and the role of the leader. This course meets the Nebraska Department of Education human relations requirement.

EDU 793. Directed Independent Readings. 1-3 credits. FA, SP, SU

Intensive reading in an area as approved by the department. P. DC.

EDU 795. Directed Independent Study. 1-3 credits. FA, SP, SU

Independent research on a topic designed by the student with the approval of an adviser from the department. P. DC.

EDU 797. Directed Independent Research. 1-3 credits. FA, SP, SU

Independent Research on a topic designed by the student with the approval of an adviser from the department. P. DC.

EDU 799. Master's Thesis. 1-3 credits. FA, SP

Research in connection with the preparation of the Master's thesis. Student must register for this course in any term when engaged in formal preparation of the Master's thesis; however, six credit hours are the maximum applicable toward the degree. P. DC.

EHM 505. Introduction to Executive Healthcare Leadership. 3 credits.

This business fundamentals course, designed for executive healthcare education, develops knowledge and skills for professionals to employ as guiding principles when leading in a contemporary healthcare context. The course surveys the functional areas of business including accounting, marketing, ethics, finance, management, quality and performance improvement, health policy, and health law.

EMBA 755. Introduction to Healthcare Management. 3 credits.

This course introduces students to the knowledge and skills required to strategically manage the rapidly changing internal and external environment of healthcare organizations. It is designed to provide students with a foundation in contemporary healthcare organizational structures and management practices. Students will explore problems and decisions facing healthcare executives in areas such as clinical quality, organizational effectiveness, efficiency, growth, stakeholder conflicts, provider incentives, margin versus mission tradeoffs, human resources, strategic planning and the like, all in a highly complex political environment.

EMBA 756. Health Economics and Population Health Management. 1.5 credit.

This course serves as an introduction to Population Health. Examine the nuanced relationship between health economics and population health strategies. Analyze socioeconomic determinants influencing community well-being. Explore evidence-based strategies for improving population health outcomes.

EMBA 757. Current Trends in Healthcare Management. 1.5 credit.

Analyze current trends shaping the healthcare management and leadership landscape. Trends could include categories like technology integrations, policy changes, or human-centered care delivery models. Gain valuable insights for effective leadership and decision making in the dynamic healthcare landscape. This course enables students to stay informed and prepared for industry trends.

EMBA 761. Healthcare Marketing. 3 credits.

This course focuses on the unique needs of marketing in healthcare, applying general marketing theory and concepts where appropriate and identifying industry specific practices for use by the healthcare leader. An emphasis is placed on: segmenting markets and identifying profitable market opportunities, developing comprehensive marketing plans and programs for reaching target customers, and the role of leadership and championing behavior within the healthcare organization in order to gain support for a proposed marketing program.

EMBA 762. Healthcare Strategy. 3 credits.

Strategic planning is a critical function in healthcare organizations. This course defines the role of a healthcare executive in the strategic planning process, reviews models for assessing the industry and market, and processes for strategic planning including addressing near-term pressures, identifying and achieving short-term and long-term goals, successful implementation of strategic plans, and managing pitfalls that can derail effective strategic planning.

EMBA 764. Healthcare Quality, Safety, and Operations. 3 credits.

This course introduces students to the customer service and quality improvement paradigms in healthcare management. Topics include planning for service quality, developing a patient centric culture, clinical practice methodologies, and measuring and improving quality. Students will be asked to apply concepts through real-life cases and projects.

EMBA 765. Information Systems and Data Analytics in Healthcare. 3 credits.

This course explores the current healthcare environment through the payer, provider, and regulatory perspectives. Using strategic tools, data analytics, and information systems, students will gain insight into innovative and practical techniques for combating and exploiting current healthcare industry challenges and opportunities via technology; including hardware, software, communication systems, operational, management, and clinical applications.

EMBA 766. Healthcare Information Systems. 1.5 credit.

This course serves as the foundation for understanding the structure and operations of healthcare information systems. This course will explore how health information strategy should align with the organization's strategy.

EMBA 767. Informatics in Healthcare Management. 1.5 credit.

This course serves as an introduction to Health Informatics. Explore health informatics strategies and how health informatics can be used to improve clinical care outcomes and operational outcomes.

EMBA 771. Leading Healthcare Organizations. 3 credits.

This course explores the most important organizational, behavioral, and leadership theories and models that explain the influence of leadership on the behaviors and attitudes of individuals, teams, and other groups. The course covers specific leadership skills such as motivating followers, recognizing individual differences, leading groups and teams, exercising power, managing conflict, improving communication, and leading change.

EMBA 774. Healthcare Human Resource Management. 3 credits. SU

The process and practice of strategic human resources management is vital to healthcare organizations. This course equips healthcare leaders to understand the techniques and practices behind effective management of people, the healthcare profession's most important asset.

EMBA 775. Health Policy and Economics. 3 credits.

One thing is constant in healthcare, and that is change. But, change in health policy and the economics of healthcare present a significant challenge for healthcare organizations to be proactive or even prepared to respond to new challenges. This course examines the current, historical, and predicted future policy and regulatory implications on healthcare financing and delivery.

EMBA 781. Legal and Ethical Considerations in Healthcare Management. 3 credits.

This course examines healthcare law from the management perspective, addressing healthcare reform, the regulatory environment, and increasing professional liability. Additionally, the matter of professional and clinical ethics in the healthcare organization are explored.

EMBA 782. Healthcare Finance. 3 credits.

This course focuses on how managers can create value for a healthcare organization through sound financial management practices. Techniques addressed include effective employment of capital budgeting and resource allocation techniques, proper computation and use of the cost of capital, and how to deal with capital structure. Third-party payer considerations are also discussed.

EMBA 791. Healthcare Accounting. 3 credits.

This course examines the essential concept of accounting in the healthcare organization. Through clear explanations, practical examples, and realistic sample problems, it arms healthcare leaders with the grounding they need to make financially sound decisions for their healthcare organizations.

EMBA 797. Evidence Based Decision Making in Healthcare Management. 3 credits.

An evidence-based approach to management ensures that healthcare leaders ask the right questions, use the best evidence available, and make better decisions in carrying out their mission. This course examines what evidence-based management is, how it can improve decision making, and ultimately, how it can lead the way to improved organizational performance.

EMBA 798. Independent Study. 1-6 credits.

This course facilitates the student's individualization of their graduate learning process through the identification of content that aligns to their personal career path interests, and the completion of their Capstone Seminar coursework. Consultation course consisting of individual student effort under guidance of the instructor. Students will discuss and outline the topic and nature of the independent study; including plan of study, time, form, specific learning objectives, and deadline for the work product to be submitted to the instructor at the completion of the course. The topic(s) selected should be aligned to, and serve as a foundation, upon which the Capstone Seminar course requirements will be completed.

EMBA 799. Capstone. 1-3 credits.

The Capstone course is designed to assist students in making the transition from theory to practice. It requires the students to work independently and as a member of a team to put into practice the disciplines and subject matters learned throughout the EMBA program. Through the design and execution of a research study, or the identification of an existing problem in a real-world setting and the application of learned skills and methods to develop a solution that addresses the problem directly, the student will synthesize their learnings and put them into practice.

FIN 505. Financial Modeling. 3 credits. FA, SP

The course is designed to help students learn how to use spreadsheets (Microsoft® Excel) to solve a variety of financial problems. The course is relatively 'hands-on' and will help students develop skills useful in a variety of jobs in finance, accounting, insurance, real estate and management. After completing this course, students should be able to use Excel to solve a range of common problems in investments, small business finance, and corporate finance. P. FIN 301; CR: Jr. stdg.

FIN 511. Retirement Planning and Employee Benefits. 3 credits. FA

This course focuses on retirement preparation. It includes the importance of retirement planning; an evaluation of the client's needs; an understanding of Social Security and Medicare; and qualified and non-qualified retirement plans. P. FIN 340 and FIN 353, or DC.

FIN 512. Estate Planning and Taxation. 3 credits. SP

This course focuses on the efficient management and transfer of wealth, consistent with the client's goals. It is a study of the legal, tax, financial and non-financial aspects of this process, covering topics such as trusts, wills, probate advanced directives, charitable giving, wealth transfers and related taxes. P. FIN 353 or department consent.

FIN 513. Life Insurance Financial Planning. 3 credits. OD

This class will focus on understanding of Individual Life Insurance as a key cornerstone of the financial planning and risk management processes. This course will examine life insurance from several perspectives including insurance principles, product forms, and standard policy characteristics. This course will also cover basic concepts of personal risk management and insurance planning considerations related to the unique variations of different product designs. Examines different forms of risk-based perspectives including underwriting classifications, reinsurance, and underlying company investment and reserving issues. Concludes life insurance marketing, and understanding life insurance company accounting, financial statements and rating systems. This course covers the materials required for educational credit towards the CLU professional designation. P. Junior standing; ECO 203, FIN 340, or department consent; elementary level skills in Microsoft Office Suite.

FIN 514. Planning for Business and Professionals. 3 credits. OD

This class will focus on understanding the risk management issues related to the different forms of business ownership and the associated planning considerations of each. This course will cover basic concepts of risk management and insurance planning considerations related to the unique variations of different business forms and the professionals who are responsible for business management decisions. Examines different forms of business from various risk based perspectives, issues related to business continuation, and buy-sell agreements. Explores planning for business liquidation, stock redemption and disposition of business interests among partners or groups. Concludes with planning and risk management decisions associated with death and disability of owners and/or key employees, keeping businesses within families, and managing risks within closely held businesses. This course covers the materials required for educational credit towards the CLU professional designation. P. Junior standing; ECO 203, FIN 301, FIN 513, or department consent; elementary level skills in Microsoft Office Suite.

FIN 523. Fixed Income Securities. 3 credits. FA, SP

A study of fixed-income investments and portfolio management. Students will study the characteristics of fixed-income securities, emphasizing valuation techniques, risk/return tradeoffs, and the role of these instruments in investor portfolios. Note: This is an advanced upper-division course in which undergraduate students receive undergraduate credit. Students who hold graduate student status may enroll in this course for graduate credit and will be required to complete additional work beyond the requirements for those students receiving undergraduate credit. P. FIN 325; Jr. Stdg.

FIN 537. Derivatives and Financial Risk Management. 3 credits. FA, SP

A study of derivative instruments and their uses. Students will learn the features of major derivative securities, pricing and valuation techniques, and strategies for using derivatives as tools for risk management in a variety of contexts. Includes an evaluation of the ethical uses of derivative instruments. Note: This is an advanced upper-division course in which undergraduate students receive undergraduate credit. Students who hold graduate student status may enroll in this course for graduate credit and will be required to complete additional work beyond the requirements for those students receiving undergraduate credit. P. FIN 325; Jr. Stdg.

FIN 558. International Financial Management. 3 credits. SP, SU

An overview of the financial issues involved in international business. Focus on the environment of international financial management, foreign exchange risk management, multinational working capital management, foreign investment analysis, financing foreign operations and international banking. P. BIA 261, FIN 301; CR: Jr. stdg.

GOL 615. Seminar in Interdisciplinary Leadership Theory. 3 credits.

This course focuses on the field of leadership in interdisciplinary contexts to enhance students' proficiency in facilitating organization-and system-wide improvements. Leadership theories and practices are related to emerging interdisciplinary approaches to promote students' knowledge, skills, and ability hierarchies, varied job roles, and diverse expertise. Through examination of theoretical perspectives and interdisciplinary work, students will develop an ability to integrate the contributions of different points of view and ways of thinking crucial to effectively lead high performing organizations in a dynamic world.

GOL 660. Local Government Law. 3 credits. (Same as LAW 406)

This course examines the basics of Local Government Law: (1) the configurations and powers of the various types of local governments (e.g. cities, counties, and special districts); (2) the allocation of power between states and their local governments; (3) sources of revenue for and debt limitations that apply to local governments; and (4) interlocal cooperation and regional governments. The course also considers how these law basics affect current issues in metropolitan "megaregions." The course also develops skills of particular relevance to local governmental and political decision making: statutory interpretation, analyzing the dynamics and context of local government proceedings, and tracing the connection between applicable legal doctrine and current public policy issues.

GOL 670. Government Organization and Research. 1 credit.

Students are oriented to the organizational structure of federal entities and the organization of the federal government. They are trained in government documents research; emphasizing agency records and legislation. GOL 670 meets as part of the last half of the Advanced Legal Research [LAW 313] course. Credit hours awarded for this course do not count as credit toward the JD degree.

GOL 690. Applied Political Philosophy in Governance. 2 credits. FA

This workshop focuses on current issues in government. The course looks at current events in the news relating to government. The course also focuses on understanding the teachings of leading social and political philosophers such as Plato, Locke, Hume, Rousseau, Mill, and others. Students are required to write a paper on a current political, social, or economic problem that could be addressed by government action. The paper completed for this course satisfies the major paper requirement for the MS degree. Credit hours awarded for this course do not count as credit toward the JD degree.

GOL 710. Counsel Roles and Leadership in Government Agencies. 3 credits.

The course will provide a comprehensive look at the major functions of government lawyers. Heavy emphasis is placed upon exploring the question of "who is the client?" and upon developing knowledge and skills in working with other managerial stakeholders within agencies and with external stakeholders such as OMB, Congress, other agencies. The course will be offered on a 2-week intensive basis just prior to commencement of the externship; part of the course will be aimed at preparing the student to get the most out of the externship.

GOL 720. Ethics in Government. 2 credits.

This course offers a detailed introduction to the Office of Government Ethics, designated agency ethics officials (DAEO), and the Standards of Ethical Conduct. Students will also look at broader ethical concepts as well as comparing formal government ethics with other ethical systems, including the Model Rules of Professional Conduct. The course will run during the externship time period and will meet one evening each week.

GOL 730. Externship Program. 11 credits.

This program is a full time government externship spanning approximately 3 months, providing an opportunity for intensive study of government legal processes and counsel office operations. Externships will be aimed at developing skills through in-depth work on a variety of assignments. Each week, students will meet together with a member of the law faculty (some weeks in person, others, on-line) to discuss issues and experiences; students will also be invited to a variety of presentations and activities involving government lawyers. Students are expected to work closely and cooperatively with administrators of the GOAL program to secure externships. Failure to do so will reduce placement opportunities. With guidance and advice from GOAL administrators, students should secure housing in advance of the semester.

GOL 740. Immigration Law. 3 credits. (See LAW 370)

This course explores the history of United States immigration legislation from the Alien and Sedition Acts to the present, with emphasis on the McCarran-Walter Act of 1952 and the 1965 and 1976 Amendments. Coverage includes immigrant and nonimmigrant visas including visas based on employment, refuses and political asylum; excludable classes; entry procedure; deportable classes; the deportation process; and naturalization.

GOL 750. Native American Law. 3 credits. (Same as LAW 403)

The subject matter of this class centers on discovering the range, depth and complexity of law and policy both emanating from and directly affecting American Indian tribes. Treaties concluded between tribes and the U.S. government during America's westward expansion and the attendant assumption of fiduciary responsibility by Congress form the basis on which subsequent laws and policies are examined. Issues to be studied include tribal court structure, federalism questions, gaming and hunting rights and exemptions, and the implementation of major statutes under U.S. Code Title 25 such as the Indian Child Welfare Act and the 1990 Native American Graves & Repatriation Act.

GRD 600. Orientation to Creighton. 0 credits.

Newly admitted graduate students will explore the University's Jesuit, Catholic history and Ignatian values; learn about the culture of scholarship and its basis in the standards of academic integrity; become familiar with the online learning management system (BlueLine); and gain an understanding of the tools and services available throughout the University. This course is self-paced.

GRD 601. Writing for Graduate Students. 1 credit. FA, SP

This course prepares students for graduate writing by building on and improving existing writing skills. Students learn how to enter a scholarly conversation first by exploring the written works of others and then by responding to those works by conducting library research and developing their own arguments.

HIF 601. Introduction to Health Informatics. 3 credits.

This course introduces students to the fundamentals of health informatics, including policy related to health informatics and other levers that influence the field. It prepares learners for success in a new or expanded career in health informatics building skills in provide management, critiquing research, and developing understanding of health information technology infrastructure, data standards, cybersecurity, data governance, policy, and ethical considerations in healthcare.

HIF 603. Introduction to Analytics in Health Informatics. 3 credits.

This course focuses on descriptive and diagnostic analytics, utilizing SQL. It introduces the fundamental concepts and techniques essential for descriptive and diagnostic analytics within the field of health informatics. Student will learn how to effectively collect, clean, and analyze healthcare data.

HIF 605. Advanced Analytics in Health Informatics. 3 credits.

This course offers an in-depth exploration of predictive and prescriptive analytics tailored for the health informatics field. Student will learn how to use predictive analytics to identify future health trends and outcomes from historical data, which helps in better planning and preventive care. The course also covers prescriptive analytics, focusing on developing effective strategies and recommendations to improve health outcomes based on the predictions made.

HIF 635. Data Governance. 3 credits.

In informatics, the flow and protection of health data is critically important. HIPAA compliance, risk-benefit analysis, regulations, clinical workflow, and legal policies must all be considered. In this course, students will explore real-life scenarios and case studies to equip students to build their own data governance team, define and communicate clear processes for receiving and evaluating data requests, recognize potential ethical or legal issues, and create external partnerships for the public good.

HIF 640. Data Management. 3 credits.

The course provides an in-depth look at IT systems architecture, security, and networking within current health information systems and applications to include management and mining of data, data extraction, and security issues.

HIF 655. Machine Learning in Health Informatics. 3 credits.

This course introduces the basics of supervised learning, unsupervised learning, reinforcement learning, and deep learning, providing a foundational understanding of each approach and their application in health informatics. We will also explore the ethical considerations and potential biases in machine learning algorithms, emphasizing their impact on healthcare outcomes.

HIF 710. Systems Analysis & Design. 3 credits.

Without focusing on human factors, data is just data. The goal of the health informaticist is to move from raw data to wisdom. This course focuses on building skills in project management practices, examining and improving clinical workflow, using clinical decision support tools, and understanding that the system life cycle and its impact on health informatics are crucial to continually improving systems and implementation.

HIF 755. Generative AI in Health Informatics. 3 credits.

This course introduces Generative AI - focusing on Large Language Models, Generative Adversarial Networks, and Natural Language Processing - to improve data processing, patient care, and decision-making in health informatics. We will explore how these technologies are applied in healthcare environments and discuss the importance of using AI responsibly, addressing ethical considerations and potential biases. P. HIF 655.

HIF 785. Leadership and Business Principles for Health Informatics. 3 credits.

This course will explore contemporary trends in today's volatile and complex healthcare/higher education organizations (micro, meso, macros levels) with an analysis of theories and executive/manager competencies that contribute to positive outcomes. Students examine innovation, change, psychological safety, and communication strategies that maximize human potential and organizational success.

HIF 790. Health Informatics Capstone. 3 credits.

The capstone course will allow students to apply the data skills and expertise learned throughout the curriculum to a real-world data project. The intent is that students will work with collaborative partners setting forth on a planned data project in the field of health informatics. Students must complete a presentation of their lessons learned and a final data product provided to the partner.

IHW 501. Personal Development for the Health and Wellness Professional. 3 credits.

A fundamental component for health and wellness professionals is self-awareness, continuous personal development, reflection, balance, and well-being. This course provides students with tools and practices to achieve and maintain these fundamental components of self-care. This course includes participation in academic service learning.

IHW 570. Healthy Aging: Concepts and Strategies for a Life Well Lived. 3 credits.

This course offers students an opportunity to develop an understanding of health promotion for the older adult. Several chronic diseases will be examined with emphasis placed on lifestyle medicine and its influence on the aging experience.

IHW 605. Foundations in Integrative Health and Wellness. 2 credits.

Integrative care is a broad term used to describe a type of personal care that addresses more of the whole person than simply a disease or condition. Integrative care purposefully adds evidence-based complementary medicine interventions to the conventional care treatment plans of patients within the current healthcare system. This course will provide a broad overview of the integrative care interventions commonly used in the U.S. healthcare system, with a particular focus on lifestyle medicine and the social determinants of health.

IHW 650. Health Behavior Modification. 3 credits.

This course provides students with a broad perspective on the many factors that determine health, with emphasis on healthy lifestyle behaviors. Students will construct, implement and modify healthy lifestyle programs for case patients/clients with and without chronic disease and across the lifespan. Special emphasis will be placed on understanding the pathophysiology and current treatment strategies of common chronic diseases. Students also learn how to evaluate and read research papers that are based on lifestyle medicine practices and procedures.

IHW 651. Nutrition for Chronic Disease. 3 credits.

This course reviews the basic principles of human nutrition with emphasis on the relationship between diet and health, and diet and disease. Students will learn and practice how to construct, implement, and modify personalized nutrition programs for patients/clients with and without chronic disease and across the lifespan. Students also learn how to evaluate and read research papers that are based on nutrition practices and procedures.

IHW 652. Exercise for Chronic Disease. 3 credits.

This course reviews the basic principles of aerobic and anaerobic fitness and their relationship with health and disease. Students will learn and practice how to construct, implement, and modify personalized exercise programs for patients/clients with and without chronic disease and across the lifespan. Students also learn how to evaluate and read research papers that are based on exercise practices and procedures.

IHW 653. Stress and Sleep Management. 3 credits.

This course studies stress and sleep and their respective impacts on health and chronic disease across the lifespan. Several stress management techniques are debated and practiced with emphasis on mind-body medicine and the relaxation response. Students also learn how to evaluate and read research papers that are based on stress and sleep management practices and procedures.

IHW 670. Research Methods and Program Design. 3 credits.

This course will explore of quantitative and qualitative research techniques applicable to health and wellness literature and program design. By the end of the course, students will be able to evaluate research and the program designs of others. In addition, students will be able to design their own programs with the appropriate methods of evaluation.

IHW 760. Advanced Health and Wellness Coaching. 3 credits.

This advanced course will prepare students for health and wellness coaching through the practice of program design and implementation of individuals within the community. Special emphasis will also be placed on team building skills and business practices related to health and wellness coaching.

IHW 770. Wholism as a Guiding Principle for Leadership and Well-Being. 3 credits.

Wholism is the philosophy that says that the parts of a whole are in intimate interconnection such that they cannot exist independently of the whole and cannot be understood without reference to the whole. This course explores the notion that all parts that make up the whole of an individual are interconnected where the guiding principles that form a person's leadership philosophy cannot be separated from those that guide personal health behaviors such that, "how we do anything is how we do everything" (Richard Rohr). Along with gaining a more in-depth sense of wholism, this course begins by exploring the interconnectedness of our relationships with others with the factors that determine health, balancing our inner world with our outer experiences, connecting dualism to our leadership style and personal health outcomes, and exploring our true-self and life purpose. Additionally, these elements are discussed in the context of chronic stress and the role that it plays in both personal health and leadership activities. The course ends with a practical application of these elements to employee health programs that emphasize improvements in quality-of-life, enhanced worker productivity, and cost savings to an organization.

IHW 780. Health and Wellness Coaching Skills, Techniques, & Tools. 3 credits.

The art and science of health and wellness coaching is enhanced with practice. In this course, students will utilize knowledge, skills, techniques, and tools acquired throughout the curriculum. Students will collaborate with clients seeking to improve their general well-being and with clients who are physician-diagnosed with chronic disease states. P. IHW 760, CR: DC.

IHW 781. Health and Wellness Coaching: Theory to Practice. 3 credits.

This hybrid course combines online learning with a five-day on campus residency that builds on the knowledge, skills, and values gained throughout the Health & Wellness Coaching curriculum. Students apply theory to practice during the residency component of the course through case studies, face-to-face coaching sessions, and interactive group projects. P. IHW 760 and Department Consent.

IHW 795. Directed Independent Study. 1-6 credits.

Students participate in independent scholarly projects under the supervision of a faculty member. P. Department Consent.

IHW 798. Practicum in Health and Wellness Coaching. 3 credits.

Students who opt for the practicum track will work with a health/well-being-related organization to gain experience in the field of health and wellness coaching. During the practicum, students will design and develop an independent project that is mutually beneficial to the student and the organization. Students will be supervised by someone within the organization and by a faculty instructor. Course is repeatable up to 6 credits. P. Department Consent.

IHW 799. Capstone in Integrative Health and Wellness. 3 credits.

This course is designed to challenge students to reflect upon the Health and Wellness Coaching curriculum with the goal of defining their vocation, creating their personal health coaching philosophy, and identifying evidence based strategies they plan to use in their future health coaching practice while considering the broad and distinct landscape of health and well-being. CR: DC.

IDC 601. Responsible Conduct of Research. 1 credit.

This required course for students in the graduate programs at Creighton University School of Medicine is designed to introduce fundamental concepts, principles and guidelines regarding scientific integrity in biomedical research. Through readings, lectures, and case discussion students are given an opportunity to reflect on ways in which they can help foster and maintain responsible conduct in research. They also become acquainted with existing regulations, guidelines, ethical themes and on-line resources regarding the ethics of their profession.

IDC 625. Introduction to Biostatistics for the Biomedical Sciences. 3 credits.

This course will provide instruction on the common statistical methods used in biomedical science and their correct application to the design and analysis of research study questions, in-class assignments will be given for each class session based specifically on the material covered during lecture. Students will be allowed to work together to complete assignments, but must complete and submit their own work for credit. One comprehensive final exam will be given to evaluate student learning throughout the semester.

IDC 627. Research Methods. 3 credits.

Study of modern experimental methods, instrumentation, and bioinformatics tools and approaches used in biomedical research. Major course components include detection, analysis, and genetic manipulation of nucleic acids, antibody-based experimental techniques, generation, detection, and analysis of recombinant proteins, microscopy, and various experimental model systems.

IDC 701. Research Writing. 3 credits.

This course will provide instruction on grant preparation and strategy, using the NIH R21 as a model. Content will consider alternative sources of grant funding and be relevant to all research grant applications. Emphasis will be placed on writing clear English.

IDC 797. Summer Research Project. 1 credit.

Students work with a faculty research mentor during the spring semester to develop a research proposal that is typically carried out during the summer before Component II.

ILD 720. Introduction to University Teaching. 3 credits.

If you teach or want to teach college or university courses, this course will explore the foundational aspects of teaching and learning and help you meet your need to be prepared. This course is grounded in learning theory, self-reflection, and an understanding of learning environment relations and dynamics to help you foster your teaching and learning development. Participants will develop a clear personal teaching philosophy and teaching portfolio as the culminating activity for this course.

ILD 795. Interdisciplinary Leadership Capstone. 3 credits.

This capstone course requires students to develop a written grant proposal to a funding agency of their choice. Students will explore fundamental components of grant proposals, develop an original program or project idea, and write and present a grant proposal informed by leadership concepts, Ignatian charisms, and ethical best practices. P. 32 earned hours of ILD credits; formal acceptance to the MS in Interdisciplinary Leadership Program.

ILD 800. Introduction to Reflective Practice, Interdisciplinarity, and Residency. 4 credits.

This course provides students with an introduction interdisciplinary thinking, the nature of interconnectedness, and integrative perspectives. Students will explore the knowledge, skills, and values underlying Jesuit education, interdisciplinary, and reflective practice. Students will also engage with scholarly readings, group discussions, and reflective and academic writing exercises to help sharpen their leadership skills, build community, and prepare for the EdD journey. As the culminating activity, students will participate in an on-campus residency.

ILD 802. Leadership and Applied Ethics. 3 credits.

Consistent with the ideal that leadership is not just an act but a way of being, this course will explore the ethical foundations that inform the leader's personal and professional practices. Students will examine ethical theories and concepts applied to leadership challenges in real world situations. Emphasis will be placed on understanding ethical leadership for social and organizational change, the leader's role as a moral agent, as well as the organization's role as a moral agent in society.

ILD 804. Organizational Theory and Behavior. 3 credits.

This course explores the theories and models that explain the behaviors and attitudes of individuals, teams and groups, as well as organizational systems. Students will be exposed to the fields of organizational behavior and industrial and social psychology principles and theories. Students will apply these theories to workplace and community settings. Students will also engage in critical analysis of these theories and determine their boundaries when working in complex environments.

ILD 805. Administrative and Policy Leadership Issues. 3 credits.

This course examines the research on administrative issues and political power in decision making and the role of leaders in policy development. The course will address social, political, and economic influences on administration and policy development. Learners will use policy analysis frameworks to address contemporary policy issues within a student's topic of interest.

ILD 810. Dissertation Defense. 1-2 credits.

This seminar is the concluding requirement of the program. The dissertation defense is held on the Creighton University campus. Students will share their dissertation, the oral defense, interact with faculty and guests, and discuss theoretical and practical leadership implications of their work. Students will have an opportunity to provide feedback about the Ed.D. program and share suggestions for improvement. All dissertation-related edits and paperwork must be submitted to the program and graduate school prior to conferring the Ed.D. degree.

ILD 811. Interdisciplinary Practicum. 1-6 credits.

Students will arrange a practical field experience to further develop their skills and abilities in a professional or organizational setting where they will be engaged in interdisciplinary leadership in action. This could include working with another person on a major project or exploring an area outside the student's own field (business, education, or health). The student will gain an understanding of researching internal or external elements related to personnel, policy, politics, economics, finance, governing relationships, elements of change, or other influences that challenge leadership, and then apply or recommend an innovative solution. The practicum experience will be arranged working with the practicum advisor.

ILD 812. Research Design and Professional Inquiry. 3 credits.

Modern social problems are complex and multilayered. Leaders must be able to properly identify effective and accurate research methods to investigate these issues. This course provides an overview of the concepts, procedures, and tools used by modern social science researchers. It is a required course.

ILD 814. Proposal Construction. 3 credits.

This course leads a cohort of 6-10 dissertation phase students through the process of developing a proposal for the Dissertation in Practice (DIP). The goal of the course is the development of an effective introduction, Literature Review, and Data and Methods according to the DIP proposal template, both in paper and presentation form. This is a required course.

ILD 815. Interdisciplinary Leadership Theories. 3 credits.

This course provides an overview and opportunity to apply various leadership theories, approaches, and perspectives. Students will be introduced to the complexity and potential of interdisciplinary thinking and will use a wide range of scholarly articles from multi and interdisciplinary fields, group engagement, and reflective writing to critically evaluate and differentiate leadership theories. Ultimately, students will evaluate the contributions of different leadership perspectives and ways of thinking crucial to effectively lead within our dynamic communities.

ILD 816. Social Justice and Leadership. 3 credits.

In this course, students will consider the causes and consequences of injustice and explore the intersectionality between a variety of topics including race, gender, (dis)ability, and socioeconomic class. This course will challenge students to consider the historical, psychological, sociological, and political perspectives that inform leadership practices that have led to injustices. Students will examine inclusive excellence and integrate Ignatian values to focus on modeling effective leadership within our complex and diverse society.

ILD 817. Systems Thinking in Leadership. 3-4 credits.

This course explores the characteristics of systems thinking and demonstrates how our ability to practice leadership can be enhanced by understanding systems. Students will engage with practical reading, discuss application of, and write narratives that utilize systems thinking. Students will analyze a system and create a systems map that will inform their interdisciplinary leadership practice.

ILD 819. The American Professoriate: A Faculty Perspective. 3 credits.

This course will examine contemporary faculty issues in post-secondary institutions from the perspective of a faculty member. The course includes an assessment of the current status of faculty in the United States, faculty workloads, performance reviews, and structuring professional development activities and special topics. Toward this end, the professoriate will be explored to include: 1) current conditions of the professoriate, 2) academic careers and the stages of an academic, 3) faculty culture, including academic freedom and tenure, 4) faculty work, 5) health professions faculty, and 6) special topics selected on the basis of the students' need and interest assessment.

ILD 822. Human Resources Leadership and Management. 3 credits.

This course examines the knowledge base of Human Resources Development (HRD) and the organizational setting in which HRD occurs. Topics include the design and development of education and training programs, how change occurs in organizations; how career development can optimize the match between individual and organizational goals and needs; how to improve the performance in organizations by analyzing performance opportunities; and designing employee training to address these opportunities. Students apply knowledge of personnel/Human Resource principles, practices, policies, and procedures to the identification and solution of case problems.

ILD 823. Leadership in a Global Society. 3 credits.

In the ever-shrinking world of the new millennium, leaders are often challenged to work internationally. This course enhances the understanding of students regarding the nature of a rapidly changing world. Students will study international market forces, social issues, and the policy environment that influences the global workplace. Students also develop and practice research skills required in a multicultural workplace. This is an elective course.

ILD 824. Contemporary Trends in Interdisciplinary Leadership. 3 credits.

Students will explore a topic of contemporary prominence that has a direct application of or implications for interdisciplinary leadership. Students will engage with a combination of instructor assigned reading and student selected literature, develop and facilitate discussion forums, and produce a scholarly project that critically applies leadership theories or constructs to the chosen course topic.

ILD 825. Women and Leadership. 3 credits.

This elective course will explore women's leadership, leadership styles, and contributions to social change from an interdisciplinary perspective. Students will examine the barriers and challenges facing women in different types of careers and their possible causes. Readings will include books and scientific articles on the structural, cultural, psychological, institutional, organizational, political, personal, economical, and financial issues facing women leaders today. Students will reflect on their own experiences and how gender influences their leadership style and perceptions of the leadership.

ILD 826. Analyzing Complex Problems. 3 credits.

This course demonstrates Nobel laureate Elinor Ostrom's Institutional Analysis and Development (IAD) framework. The IAD framework, an analytical strategy from the field of public policy, is especially useful in analyzing the complex problems that often occur within and between teams of people engaged in meaningful work. Students will learn to apply the framework to analyze complex problems within organizations of their own choosing and to design and appraise potential solutions to these problems based on the evidence of their studies. In this way, it is an ideal course for scholar-practitioners interested in creating evidence-based solutions at the applied level.

ILD 829. Leadership in the Health Professions. 3 credits.

This course will explore contemporary trends in today's volatile and complex health care/higher education organizations (micro, meso, macros levels) with an analysis of theories and executive/manager competencies that contribute to positive outcomes. Students examine innovation, change, psychological safety, and communication strategies that maximize human potential and organizational success.

ILD 836. Leadership, Public Relation and Stakeholder Engagement. 3 credits.

Examine leadership, public relations, and stakeholder engagement from an interdisciplinary perspective. Explore the notion of transparent communication and the impact that it has on creating an open and ethical organization. Identify the opportunities and challenges of stakeholder engagement with internal, external and global audiences, through the news media, social media, crisis communication, and corporate social responsibility.

ILD 837. Introduction to Servant Leadership. 3 credits.

This course is designed for those who wish to integrate servant leadership in order to define their leadership style. Leadership is not about serving one's personal need and interest; rather, true leadership is about "men and women in service of others," a primary Jesuit educational objective. First, this course will focus on the theory of Servant Leadership, from ancient text to current research. Following theoretical framework will be practice of Servant Leadership in those whose core principles and first responsibilities are service to relationships and others. Finally, the learner will engage in the activity of discernment in servant leadership as a means toward achieving a definable personal mission statement as a member of the ILD community.

ILD 838. Toxic Leadership. 3 credits.

Investigates and analyzes the impact of toxic leadership on followers, the organization and organizational values and ethics. Employing a three pronged model that examines the interplay of 1) leaders, 2) followers and 3) context, students will examine the environmental drivers that contribute to a dysfunctional and harmful leadership style. The course will evaluate possible mitigation strategies for reframing the detrimental behavior and reinforce an ethical foundation.

ILD 841. Teaching Internship. 3 credits.

This course investigates best practices in healthcare environments for planning and developing student-centered educational and clinical activities as well as principles of effective teaching. Through this course, students will gain advance skills and knowledge in application of techniques and principles relating to instruction in the student's area of specialization. Students may teach a continuing education course or a didactic/lab course with the support of a mentor who will work closely with the student in the development of course materials, content and presentation/facilitation. Teaching may be done face-to-face or as part of an online delivery method. Interdisciplinary Leadership students may also take this course as an elective in the EdD program.

ILD 845. Learning in the Health Professions: Strategies for Developing the Master Adaptive Learner. 3 credits.

This course will use a master adaptive learner (MAL) framework as a model for the integration of key learning theories and concepts in health professions education. Learning in the health professions is progressive development of expertise across a career including building formal and clinical knowledge, clinical reasoning abilities, and clinical performance. Central to all of the health professions education is self-directed lifelong learning. The course will examine application of learning theories to the learner, teacher, and the clinical learning environment. The MAL framework will be used as a conceptual model (planning, learner engagement, assessment, and adjusting) to investigate the development and assessment of a master adaptive learner.

ILD 850. Quantitative Research Design and Methods for Leadership Decision-Making. 3 credits.

This course examines the connection among research topics, questions, concepts, foundational assumptions of statistical tests, and the practice of quantitative methods. The interpretation of results will also be explored. This course enhances the ability to read statistical results and will inform leaders and those who intend to pursue quantitative dissertations.

ILD 851. Qualitative Research Design and Methods for Leadership Decision-Making. 3 credits.

Qualitative research provides scholar-practitioners with ways to observe and make sense of the world in all its rich and complicated complexity. This course will examine the design, analysis, and interpretation of qualitative research needed for leadership decision-making. Student will explore the craft and the art of qualitative inquiry.

ILD 853. Data Use and Analysis (Qualitative). 3 credits.

Qualitative data is a valuable commodity enabling all types of leaders and organizations to make evidence-based decisions. This course will emphasize qualitative data management, data analysis, interpretation of results, and writing. Students will strengthen their data literacy skills by exploring, understanding, and communicating with qualitative data to inform when, what, and how data is analyzed and used in their dissertation in practice. P. ILD 851; ILD 814.

ILD 854. Data Use and Analysis (Quantitative). 3 credits.

This required course is open to students who are implementing quantitative research designs in their dissertations. It focuses on:
a) using statistical software to conduct a variety of statistical tests;
b) presenting and interpreting the results of these tests in a manner consistent with social science methods. The latter focuses on the substantive application of results to leadership decision-making.

ILD 855. Social Science Research Methods and Design. 4 credits.

This course provides students with the foundations of social science research methods. Students will compare characteristics associated with different qualitative and quantitative research designs that describe, explore, or examine leadership phenomena. Students will read empirical social science research, discuss the appropriate application of methods for answering research questions, explore research as a transformative process, and practice scholarly writing. As the culminating activity in this course, students will present their initial ideas for an original, primary research project focused on a student's topic of interest.

ILD 856. Social Science Research Data Use and Analysis. 3 credits.

In this course, students will explore how to use and analyze social science research data. Students will practice data analysis procedures that will describe, explore, and assess complex leadership phenomena. Through engaging in foundational reading, critical discussion, and scholarly writing, students will become more comfortable identifying the alignment between the utilization, analysis, and design of interdisciplinary social science research. As the culminating activities of this course, students are required to complete responsible conduct of research training and will develop a draft of the methodology and analysis sections of their dissertation in practice proposal. P. ILD 855.

ILD 891. Scholarly Literature Review Seminar. 4 credits.

In this seminar, students will work with the guidance of their dissertation in practice chair to write a scholarly literature review. This course will provide students with an opportunity to apply interdisciplinary thinking and deeply engage with the state of literature on a student's topic of interest. One of the foundational elements of scholarly research is the accurate and comprehensive compilation, synthesis, and application of relevant literature around a particular topic. Students will identify and begin to explore the contextual, conceptual, interdisciplinary, and theoretical background of the topic that is the focus of their dissertation in practice. Over the course of the seminar, students will apply scholarly searching, reading, discussion, and writing principles to develop a draft of their dissertation-in-practice literature review.

ILD 892. Dissertation in Practice Proposal Seminar. 4 credits.

In this seminar, students will work with the guidance of their dissertation in practice chair to write an effective proposal. Over the course of the seminar, students will write an introduction, revise and edit their literature review and methods sections by engaging with and responding to the feedback from their cohort members, dissertation in practice chair, and a second committee member. In accordance with the dissertation in practice handbook, students are required to complete and pass this seminar prior to progressing towards data collection. P. ILD 856 and ILD 891.

ILD 893. Dissertation in Practice Manuscript and Defense Seminar. 4 credits.

In this seminar, students will work with the guidance of their dissertation in practice chair to prepare their manuscript and defend their dissertation in practice study. Over the course of the seminar, students will prepare their manuscript in accordance with an appropriate scholarly publication outlet. The dissertation in practice defense is held virtually as an open presentation. Students will present the background, methods, and results of their DIP study, interact with faculty and guests, and discuss initial theoretical and practical leadership implications of their research. In accordance with the dissertation in practice handbook, completion of the manuscript and dissertation in practice defense are required components of the dissertation in practice process. P. ILD 892.

ILD 894. Dissertation in Practice Practitioner Recommendations and Professional Conversation. 3 credits.

In this seminar, students apply lessons learned during the EdD in Interdisciplinary Leadership Program to personal and professional situations. Students will contemplate how they have been transformed by their learning experiences and what they will do next. As the culminating activity in this seminar, students will apply reflective practice, interdisciplinary thinking, and advanced leadership acumen to create a practitioner recommendation plan based on their dissertation in practice work. As the culminating activities in this course, completion of the practitioner recommendation plan and participation in a professional conversation with the instructor, cohort members, and other program faculty are required.

ILD 895. Independent Study. 1-3 credits.

This course will deal with topics in leadership practice, theory, research, and policies under the direction of an Ed.D faculty member. The content of this course will vary depending on the needs of the student. Prior approval from the Director of the Interdisciplinary Ed.D. Program in Leadership is required.

ILD 899. Dissertation Research. 1-8 credits.

The dissertation in practice research project is a process of inquiry focused on practical issues related to the student's discipline. The dissertation in practice addresses real world problems or issues in applied settings. The student workplace or practice setting is the laboratory for development of the dissertation. The dissertation provides the structure for examination of the student's practice in a thoughtful and systematic way. The student should be prepared to seek approval of the dissertation proposal at the conclusion of the first three (3) credit hours of dissertation credit earned. Students take the first three credits in faculty-facilitated courses to understand the components and requirements necessary to complete the dissertation. The first credit, identified as 899e, focuses on the dissertation process in which students determine scope of the dissertation in practice. This course is ideally paired with ILD 890, which focuses on the ethical components of dissertation research. The remaining 899 credits are to be taken over the next 1-2 years, working with the student's chair and dissertation committee collecting data, analyzing data, presenting results, summarizing findings, and drawing conclusions in preparation for the final dissertation in practice paper and oral defense (ILD 810).

IPE 001. Interprofessional Education Passport. 0 credits.

The Interprofessional Education Passport consists of student learning activities focused on meeting the core competencies for interprofessional collaborative practice and each profession's interprofessional education accreditation requirements. Interprofessional education is defined as "when students from two or more professions learn about, from and with each other to enable effective collaboration and improve health outcomes" (WHO, 2010). As a Creighton health sciences student, you must complete three IPE Passport activities to graduate. Prior to enrollment in the IPE Passport, you must successfully complete IPE 500: Introduction to Collaborative Care. In order for an activity to be approved as part of the IPE Passport, it must meet certain criteria and be approved by the IPE Curriculum Committee. Non-credit level. P. IPE 500.

IPE 500. Introduction to Collaborative Care. 0-0.5 credits.

This course is an introduction to the concepts of interprofessional collaborative practice preparing students across the health sciences to engage in interprofessional education and practice activities during their tenure at Creighton and beyond. In this course health sciences students will gain knowledge in the Core Competencies for Interprofessional Collaborative Practice, versed in the basics of team work in the context of health care and begin to develop skills in team-based clinical reasoning. IPE 500 is a prerequisite to the IPE 001 IPE Passport. Successful completion of IPE 500 is required to be able to complete the IPE 001 IPE Passport.

IPE 530. Foundations of Ethical Care. 1 credit. FA, SP

This course will cover the fundamental aspects of ethics in healthcare, emphasizing ethical decision-making and the application of ethical principles. The course also provides an overview of professional codes of ethics across various healthcare disciplines, with a focus on protecting patient autonomy through regulations like HIPAA and the complexities of obtaining informed consent. Participants will learn to respect patients' rights and decision-making capacities while addressing ethical issues in team-based care. Satisfies Magis Core: Designated Ethics. P. Ethics, IPE 500.

IPE 531. Ethics in Professional Practice. 1 credit. FA, SP

This course explores complex ethical and legal challenges in healthcare by examining key legal standards, ethical decision-making in resource-limited settings, discharge planning, and end-of-life considerations. Topics include advanced directives, resource rationing, EMTALA compliance, and the ethics of life-sustaining treatments. By the course's end, participants will gain a deeper understanding of ethical principles to navigate diverse healthcare situations confidently. Satisfies Magis Core: Designated Ethics. P. Ethics, IPE 500.

IPE 532. Ethics in Health Systems. 1 credit. FA, SP

This course focuses on strategies for advocating equitable care, principles of research ethics, and evidence-based practice. Participants will learn to balance individual rights with community health, addressing ethical issues in vaccination, quarantine, and public health interventions. The module covers global health ethics, the impact of technology and digital health on ethics, ethical considerations in genetic testing and personalized medicine, and examines future trends and challenges in healthcare ethics. Satisfies Magis Core: Designated Ethics. P. Ethics, IPE 500.

MAC 756. Research and Analysis of Ethical Issues in the Accounting Profession. 3 credits.

Study of the ethical and societal foundations of the accounting profession, with special emphasis on examples of recent professional and corporate wrongdoing. Study of common ethical issues that arise in various sectors of the accounting profession. Research and application of the AICPA Code of Professional Conduct and other relevant ethical codes to specific ethical dilemmas. Prerequisite: Admission to the MAC Program or permission of the MAC director.

MAC 761. Current Issues in Accounting. 3 credits.

A capstone course that explores the current issues facing the accounting profession in its various sectors - public, private, governmental and nonprofit. Combines student study of issues with case analyses. Presentations by senior representatives of the accounting profession might be an integral part of the course. P. MAC 756.

MAC 766. Graduate Internship. 1-3 credits.

This course is intended to provide graduate-level credit for significant program-related practical experience. The student's internship employment must be arranged before registration for the course will be allowed. The course is graded Satisfactory/Unsatisfactory. A maximum of 3 hours of internship credit may be used to satisfy graduation requirements for the MAC or another graduate business program. P. IC and approval of the MAC Program Director.

MAC 795. Independent Study & Research. 1-3 credits.

Advanced study and research in accounting subjects not ordinarily covered by regularly scheduled courses. P. Approval of the Masters of Accounting Coordinator and the Accounting Department Chair.

MBA 620. High Impact Leadership. 1 credit.

Seven out of the ten most dominant leadership characteristics directly relate to one's communication and leadership presence. This course focuses on the essence of professionalism through combining these traits in a practical, hands-on format. You'll gain the skills of today's most influential leaders, and most of all, learn to differentiate yourself.

MBA 621. Leadership Presentation Skills. 1 credit.

Students learn to be articulate and confident through this hands-on presentation skills course. This training will ensure that students can deliver clear, complete and organized presentations to any group. Students learn effective physical delivery skills along with road maps for real world situations. P. MBA 620.

MBA 622. Convincing Conversations. 1 credit.

Think you're not a sales person - think again! In today's competitive environment we all convince, influence, compel and persuade on a daily basis. While these conversations may not be seen as true selling situations, it's important to get what you want from the other party in the dialogue, ask open-ended questions, actively listen, identify and deliver your value proposition, make a recommendation and close with confidence. P. MBA 620; MBA 621.

MBA 623. Business Writing-Leveraging Written Communication. 1 credit.

The ability to write well is a critical success factor. This business writing course is designed to help learners organize their thoughts, write a draft, check for readability and edit based on tone, style and overall impact.

MBA 703. Accounting for Managers. 3 credits.

This course teaches students both financial and managerial accounting with an emphasis on managerial understanding. The primary focus of this course is understanding the fundamentals of financial and managerial accounting that will help students make good decisions as managers. Topics covered will enhance understanding of the fundamentals of the financial reporting model, cost accounting, and accounting's role in managerial decision making.

MBA 711. Managerial Finance. 3 credits.

This course focuses on how financial managers can create value for a firm. Techniques addressed include effective employment of capital budgeting and resource allocation techniques, proper computation and use of the cost of capital, and how to deal with capital structure and dividend decisions. P. MBA 703, and Statistics.

MBA 712. Advanced Managerial Finance. 3 credits.

An advanced study of the role of financial managers in efficiently employing a firm's capital to create value. Case analysis is used to enhance understanding of the role, responsibilities, and overall goals of the financial manager of a firm. P. MBA 711 or equivalent and Statistics.

MBA 715. Investment Value and Theory. 3 credits.

Study of advanced topics in investments, capital markets, and portfolio theory. Special emphasis on security analysis and valuation, as well as on the theory of efficient markets.

MBA 717. Accounting Seminar: Special Managerial and Financial Accounting Issues. 1-3 credits.

Study of advanced topics in accounting. Focus on the analytical and empirical literature in the field of accounting. Course content necessarily changes each semester; therefore, flexibility is provided by the seminar approach. This course is repeatable up to nine credits. P. MBA 701 or equivalent.

MBA 719. Finance Seminar. 0-3 credits.

Study of advanced topics in business finance. Focus on significant developments and meaningful innovations in domestic and international finance theory and practice. Course content necessarily changes each semester; therefore, flexibility is provided by the seminar approach. This course is repeatable up to nine credits. P. MBA 711 or equivalent.

MBA 720. Introduction to Enterprise Risk Management. 3 credits.

This course provides a foundational learning of Enterprise Risk Management (ERM) and its components. For every crisis there are companies that successfully prepared for it and remain anonymous. Learning how to encourage a positive outcome, recognizing when to challenge a strategic plan while allowing good business decisions to go forward makes ERM part art and part science. The best chief risk officers help an entity to improve its decision making capabilities.

MBA 721. Credit and Market Risk Fundamentals. 3 credits.

This course provides a foundational understanding of credit and market risk by presenting typical asset classes and methods used to manage the balance between risk and return. A risk team needs a high level understanding of various risk silos, and investment risk techniques generally apply to all risks. Learning about asset classes and the risk metrics common to investors, enables recognition of strategic issues and how they are addressed. P. MBA 720.

MBA 722. Enterprise Risk Management-Leadership and Governance. 3 credits.

This course explores the systematic process for helping organizations to facilitate and implement an ERM governance model. ERM course knowledge and skills will be used to identify organizational metrics, reporting tools, and governance systems considering an entity's risk appetite, tolerance, and profile. Facilitation of organizational change management and communication will also be covered. A comprehensive ERM governance cycle model, management and implementation plan for the student's organization will be developed as a final project for this course. P. MBA 720 and MBA 721.

MBA 723. Case Studies in Enterprise Risk Management and Governance. 3 credits.

This course explores case studies which brings together the perspective and content from other core courses in a capstone-like format. Critical thinking and enterprise perspectives are used to view risk analysis and management techniques through case study applications. The focus of the course will be on the analysis of case studies of organizations preparing, implementing, reporting, and governing through ERM frameworks. Best practices, critical thinking, analysis, and decision-making applications will be explored. A final case paper will be required of students, which includes the preparation of an ERM framework and governance model for an assigned organization. P. MBA 720, 721, 722.

MBA 724. Crisis Planning and Enterprise Communication Management. 3 credits.

This course provides students the necessary understanding of crisis communication from an internal and external perspective. Students will gain a comprehensive overview of crisis communication and planning for natural and manmade disasters, and how to handle communication issues in crisis situations. In today's environment, crises can come from many sources, and the need for internal and external communication and coordination across all media is highly complex. The experience offered within this course will provide leaders an education for use within any organization, including the development of an Enterprise Communication Plan (ECM).

MBA 730. Survey of Business Intelligence and Analytics. 3 credits.

Business Intelligence (BI) and Data Analytics are at the forefront of modern business management and have become key components in accomplishing strategic and operational goals. This course explores the fundamental sources of BI and surveys the current and emerging landscape of data analytics, while introducing techniques and tools used to transform data into actionable information.

MBA 739. Tax Theory and Business Decisions. 3 credits.

Effects of taxation on business organization, capital structure, policies and operation. Deals with those phases of taxation that are general executive responsibilities. P. MBA 701 or equivalent.

MBA 741. Economic Analysis for Managers. 3 credits.

A study of major micro- and macroeconomic principles, analyses of major economic problems, economic and business data. The course provides an understanding and familiarity with some basic micro and macroeconomics tools and economic policies that are used in business decision-making. P. Statistics.

MBA 742. Seminar in Applied Managerial Economics. 3 credits.

Analysis of economic information and techniques necessary in business decision-making, including the adaptation of economic concepts, principles, and research methods to the needs of business managers. Explores the relationships among inflation, short term interest rates, long term interest rates, and company value. P. MBA 741 or equivalent and Statistics.

MBA 759. Seminar in Applied Economics. 1-3 credits.

Application of economic theory and analysis to selected problems and issues of local, regional, national, and international concern as these relate to business activity and the making of administrative decisions. If you have taken ECO 418, you cannot take this course. P. MBA 741 or equivalent.

MBA 761. Marketing Management. 3 credits.

This course addresses the application of marketing concepts to real world marketing situations. An emphasis is placed on: segmenting markets and identifying profitable market opportunities, developing comprehensive marketing plans and programs for reaching target customers, and the role of leadership and championing behavior within the firm in order to gain organizational commitment for a proposed marketing program.

MBA 766. Graduate Internship. 1-3 credits.

This course is intended to provide graduate-level credit for significant program-related practical experience, coupled with a research component that utilizes the context of this practical experience as its primary vehicle of inquiry. Students must work a minimum of 150 hours for the sponsoring employer during the semester. In addition, the student must complete a research project related to this work, which has been planned and carried out under the direction of a graduate faculty supervisor, with the approval and cooperation of the sponsoring employer. The student's internship employment and faculty supervision for the research component must be arranged before registration for the course will be allowed. The course is graded Satisfactory/Unsatisfactory and only 3 hours of internship credit may be used to satisfy graduation requirements. P. IC and approval of the MBA Program Director.

MBA 767. Marketing Dynamics Seminar. 1-3 credits.

Marketing theory is briefly reviewed to provide background for intensive analysis of current and sometimes controversial marketing issues. Course content necessarily changes each semester; therefore, flexibility is provided by the seminar approach. P. MBA 761.

MBA 771. Leadership and Organizational Behavior. 3 credits.

This course explores the most important theories and models that explain the influence of leadership on the behaviors and attitudes of individuals, teams, and other groups. The course covers specific leadership skills such as motivating followers, recognizing individual differences, leading groups and teams, exercising power, managing conflict, improving communication, and leading change.

MBA 775. Business Policy And Managerial Action. 3 credits.

This course covers strategic management concepts and practices used by business leaders to enhance the competitive position of their companies. The course will require students to take the role of upper management and use information from all functional areas of business to develop strategic responses to business situations. P. Last semester or last six hours of enrollment in the MBA program.

MBA 776. Business, Ethics and Society. 3 credits.

This course explores the theoretical frameworks and practical approaches that business leaders can take for addressing micro, meso, and macro level ethical and social issues related to business. Specific issues covered can vary, though some global business ethics issues are always explored. Special emphasis is given throughout the course to ways that businesses can be both profitable and a positive force for economic and social justice.

MBA 777. Leadership Development. 3 credits.

The purpose of this class is to prepare students for effective leadership. Building on concepts and theories for MBA 771 and other coursework, this course provides an opportunity to further develop and understanding of effective leadership and their leadership skills. Based on 360-degree feedback, students will identify strengths and specific growth opportunities and develop an action plan to enhance and improve in the identified leadership areas. These areas include communication, conflict management, among others.

MBA 779. Seminar in Management. 0-9 credits.

Exploration and analysis of selected problems and issues in today's business environment. Course content changes each semester as current and sometimes controversial issues within are discussed. This course is repeatable up to nine credits. P. Prerequisites depend on course content.

MBA 784. Change Leadership. 3 credits.

This course explores change leadership from three trajectories: key models for leading change in organizations found in literature, practical examples of leading change from business executives, and students' own change experiences. Additionally, students will engage a model for understanding one's own leadership style. Students will integrate course content, presenting a personal model for leading change in their own contexts.

MBA 786. Leading with Human Resource Management. 3 credits.

This course will explore the role of human resource decisions in contributing to organizational effectiveness and a firm's competitive advantage. We will approach the management of human capital from a strategic perspective and cover topics such as Human Resources Strategy, Planning and Recruitment, Staffing, Training and Development, Retention, Performance Management, Compensation and Benefits, and other aspects of Human Resource Management. Emphasis is placed on the role of managers in developing effective, efficient, and ethical HR practices supporting a firm's strategic objectives.

MBA 788. Sustainable Enterprise and Social Entrepreneurship. 3 credits.

Corporate sustainability has moved from the margins to the mainstream, driven by competitive pressure and rising societal expectations.

Corporations seeking sustained competitive advantage (SCA) embrace sustainability principles, while "social entrepreneurs" apply business thinking to societal grand challenges. This course examines what it means to be sustainable, analyzes corporate environmental and social activities, and investigates efforts to reach underserved "base of the pyramid" markets.

MBA 791. The Business World: A Campus and Travel Course. 3 credits.

This course is designed to provide a capstone travel experience in which graduate students make on-site visits to a variety of organizations known for their business leadership and innovative practice. The overall aim is to complement a student's campus-based study of business concepts, processes, activities, and organizations. The course typically includes approximately 15 hours of on-campus study prior to and after the travel portion of the course. The travel portion of the course may involve various destinations. P. Instructor approval; Consent of the MBA Program Director.

MBA 795. Independent Study And Research. 1-3 credits.

Advanced study and research in subjects not ordinarily covered by regularly scheduled courses. P. IC and approval of the MBA Program Director.

MFP 751. Personal Financial Planning. 3 credits.

This course covers a range of topics relevant to the financial planning process, including 1) time value of money applications, 2) personal financial statement construction and evaluation, 3) economic measures applicable to planning decisions, 4) the personal financial planning process, 5) ethics and standard of conduct applicable to planners, and 6) education funding strategies.

MFP 752. Personal Insurance Risk Management. 3 credits.

This course is structured to provide students the fundamental knowledge and understanding of the many forms of social, government and private forms of insurance. This includes a working knowledge of insurance contracts, the many forms of insurance overages, the basic operating functions of an insurance company, and industry regulatory authorities. This course is structured to refine and develop skills needed for personal financial planners when working with individuals, families and the business owners, to help them to meet their financial needs, objectives and goals.

MFP 753. Applied Behavior Finance. 3 credits.

This course is an applied behavioral finance course examining the intersection of behavioral finance, financial psychology, and financial planning theory, practice, and research. It reviews the research on behavioral finance and investor psychology, exploring the effects of human emotions and cognitive errors on financial decisions. This course focuses on the application of behavioral finance theory and research to the practice of business, financial planning, and financial therapy to help professionals improve the financial health of their clients.

MFP 754. Introduction to Financial Psychology. 3 credits.

This course is designed to develop knowledge and skills for personal financial planners, business professionals, coaches, counselors, and therapists to help to use with individuals, families, and business owners to help them meet their financial goals. This course is an introductory financial psychology course that examines the intersection between financial planning, financial coaching, and financial therapy.

MFP 755. Personal Financial Psychology. 3 credits.

This course is designed to develop knowledge and skills for financial planners, business professionals, and coaches to give them the knowledge and tools to work more effectively with clients. This is an advanced course surveying topics facilitating the integration of financial psychology into financial planning, financial coaching, and business.

MFP 756. Psychology of Family Finances. 3 credits.

This course is designed to develop knowledge and skills for financial planners, business professionals, and coaches to help give them the knowledge and tools to work effectively with families and couples around finances. This course focuses on the practical application of financial psychology theory and technique to help improve client, couple, and family financial health.

MFP 757. Financial Communication and Client Interviewing. 3 credits.

This course is designed to develop knowledge and skills for personal financial planners, business professionals, and coaches to help them improve their client communication and interviewing skills in the area of personal finance. This course focuses on the practical application of advanced communication and interviewing skills.

MFP 758. Case Studies in Financial Planning. 3 credits.

This course examines professional issues in financial planning, including ethical considerations, regulation and certification requirements, written communication skills, professional responsibility, and client-centered financial behavior issues. Students are expected to utilize skills obtained in previous financial planning curriculum courses, and personal work experiences, in the complete of a comprehensive cases, mini-cases, and analytical calculations.

MFP 759. Income Tax Planning. 3 credits.

Income tax planning covers a range of topics relevant to the financial planning, including, 1) fundamentals of income taxation; 2) gross income and deductions; 3) adjusted gross income and below-the-line deductions; 4) tax credits; 5) the taxation of capital assets; and 6) passive activity rules. P. MFP 751.

MHE 600. Scholarly Reading and Writing. 3 credits.

The course will build on and improve existing writing skills. Students and faculty are all members or a larger writing community in which everyone contributes to an on-going dialogue. The course assumes one's writing can always improve. The specific aims of the course are: 1) to produce clear and precise writing and 2) to accurately credit and incorporate the others' scholarly work. The course includes recognizing, attributing and summarizing existing scholarship. The course also stresses responses to existing work, distinguishing response types, anticipating arguments or objections, and tying it all together. Concrete templates and rhetorical moves are employed to enhance reasoning and organizational abilities. Students incorporate detailed instructor feedback in multiple writing assignments. The course assumes understanding of the rules of English grammar, spelling, syntax, and punctuation.

MHE 601. Health Policy. 3 credits.

MHE 601 explores health policy and its development, emphasizing social justice and human rights. Students consider institutional, local, regional, national, and international approaches to public health, health systems, and priorities for research and development. American health systems - operations, processes, successes, and failures - are extensively analyzed. Students consider processes for and challenges in making health policy at institutional, state, and federal levels. Past and current attempts at health systems reform are reviewed, stressing 2010 U.S. healthcare reform.

MHE 602. Research Ethics. 3 credits.

This course will enhance students' understanding of core ethical issues in biomedical research and improve their ability to analyze, explain, and justify relevant cases, arguments, positions, and policies. The focus is biomedical research involving human participants. A stress is investigation involving populations and communities with vulnerability. Study of historically pivotal cases leads to review of ethical, policy, and programmatic responses. Students also study ethical factors in community-based research, informed consent, multinational research, genomics, and neuroscience. Discussions develop collective inquiry related to core topics. Individual papers also develop students' knowledge and aim to enhance their analytical and compositional skills.

MHE 604. Social and Cultural Contexts of Health Care. 3 credits.

This class introduces the student to the various contexts of personal and social experience that construct and interpret bioethics. Participants consider identity and autonomy as embedded in social matrices ranging from the body itself to global configurations. Various power dynamics of class, legitimacy, and ideology are considered. Participants analyze the culture of the biomedical project and the challenge of finding one's voice within it.

MHE 605. Philosophical Bioethics. 3 credits.

This course reviews the nature of ethical reasoning, including various epistemological challenges to moral judgment. Second, major theories of ethics will be introduced, including virtue ethics, deontology, utilitarianism, casuistry and principlism. Third, signature texts by protagonists of these historical theories will be compared and contrasted with contemporary critics, with specific reference to issues of vulnerability. P. MHE 600; MHE 610.

MHE 606. Theories of Justice. 3 credits.

This course will introduce students to theoretical and practical complexities, ambiguities, and persistent questions at the intersections of clinical ethics, social policy, and health justice.

MHE 607. Practical Ethics in Health Care Settings. 3 credits.

The practical application of ethics to clinical situations is much more than following standards of practice. This course will provide the opportunity to apply foundational concepts of ethics to a variety of health care settings. Additionally, the use of deliberative methods to think through and discuss the unique features presented by different health care settings and professional conduct will be an integral component of the course. The typical charges of institutional ethics committees will be examined: consultation, education, and policy review/development.

MHE 609. Capstone. 3 credits.

This final required course serves as a culminating learning experience in which students integrate insights and competencies from both bioethics and health humanities. Drawing on methods of ethical analysis and humanistic inquiry, students will complete one or two capstone projects: a consultative report addressing a specific practical challenge or a scholarly paper examining a contemporary theme at the intersection of ethics, health, and the human experience. Students are encouraged to build upon prior coursework, professional practice, and interdisciplinary perspectives to craft a meaningful and well-supported final project. P. DC.

MHE 610. Introduction to Bioethics. 3 credits.

Bioethics is a complex field with few easy answers. This course uses an interdisciplinary lens to introduce students to the ethical dilemmas inherent in health care and health policy with specific emphasis on populations with vulnerability, disadvantage, or marginalization. Students develop a broad understanding of the philosophical, historical, cultural, economic, technological, and political dimensions of ethical issues the discipline of bioethics encompasses.

MHE 614. Ethical Aspects of End-of-Life Care. 3 credits.

This course examines different end-of-life care practices including forgoing treatment, PAS/euthanasia, palliative care, sedation and decision-making for incompetent patients. Students reflect on their own views on disabilities, aging and dying; examine the merits of policies/legislation; and consider how society at large can come to appreciate those dying in our midst.

MHE 615. Patient-Centered Consultation. 3 credits.

This course is an interactive introduction to the key, basic-level skills in healthcare ethics consultation involving adult patients. The course will focus on the three categories of skills for healthcare ethics consultants - ethical assessment and analysis, process skills and interpersonal skills - that are the foundation of the Core Competencies for Healthcare Ethics Consultants, 2nd ed., a report of the American Society of Bioethics and Humanities (ASBH, 2011).

MHE 695. Independent Study in Health Care Ethics. 3 credits.

This course offers students the opportunity to explore a topic in health care ethics in depth. Specifically, students will collaborate with the instructor to design a plan to achieve agreed upon learning goals, strategies to achieve goals, and evidence of learning.

MIC 541. Medical Microbiology and Immunology. 3 credits. FA

Introductory course focusing on foundations of general bacteriology and virology, antibacterial therapy and mechanisms of antibacterial resistance, infectious diseases caused by bacteria, viruses, fungi, and parasites, and the host defenses against these microorganisms. R, L. P. Second year Pharm.D. student or degree seeking graduate student. Upper level undergraduate or other students require approval from course director.

MIC 543. Essentials of Immunology. 3 credits. SP

Lecture course covering the major areas of contemporary immunology including host resistance to infection, the chemistry of antigens and physiology of the immune system, immunogenetics and transplantation immunology, immunological techniques, tumor immunology, and immunopathology. P. MIC 541, or IC.

MIC 721. Foundations of Microbiology. 4 credits.

Lecture course that emphasizes (1) the foundations of general bacteriology and virology, (2) microorganisms of medical importance and the diseases, (3) antimicrobial, and (4) scientific logic for critical analysis of original research articles in the field. A required course for graduate students in the program.

MIC 733. Advanced Microbial Pathogenesis. 3 credits. AY, SP

Lectures, seminars, literature review, and group discussion concerning mechanisms by which microorganisms cause disease. CR: IC.

MIC 735. Diagnostic Microbiology. 4 credits. AY, SP

Laboratory and conferences which deal with selection of clinical specimens for diagnosis, isolation of pathogenic microorganisms and preparation of media for their growth. 4 R. L arr. P. IC.

MIC 739. Bacterial Physiology. 3 credits. AY, SP

Study of molecular, cellular, and genetic processes in bacteria. Includes molecular structure and function, cell division, synthesis of macromolecules, and metabolism.

MIC 740. Host Defense. 3 credits. SP

The student will be provided with the information to have a clear understanding of various subject areas, including antigen recognition, development of B & T cells, constitutive host defenses, immunopathology, inflammation, transplantation, allergy, and tumor immunology. Lecture presentations, assigned reading and computer-aided instruction. P. IC.

MIC 745. Cellular And Molecular Immunology. 3 credits. SP

This course will focus on the basic and clinical aspects of cellular and molecular immunology. 2 R&L arr. P. MIC 740 or IC.

MIC 746. Advanced Immunology. 3 credits. AY, FA

Lectures and conferences providing a coordinated and detailed account of current immunology at an advanced level. Students will be expected to familiarize themselves with the original literature, and emphasis will be given to the more rapidly progressing areas. 3 R&L arr. P. MIC 543 or IC.

MIC 749. Molecular Virology. 3 credits. AY, FA

Study of the physical, chemical, and biological properties of viruses. Selected topics will include such areas of investigation as cultivation and identification, replication, host-virus interactions, interference, and viral oncogenesis. P. IC.

MIC 753. Advanced Antimicrobial Agents And Chemotherapy. 3 credits. AY, FA

Chemistry, pharmacology, and biology of antibiotic substances and their use in therapy of infectious diseases. P. IC.

MIC 790. Current Topics in Medical Microbiology and Immunology. 2 credits. FA

Lectures and literature discussion covering recent advances in the fields of microbiology, immunology, and virology, with roughly a third of the course devoted to each field of study. P. MIC 541.

MIC 791. Department Seminar and Teaching. 1 credit.

The student is required to register each semester of his/her residence. The maximum credit applicable toward a degree is two for the M.S.; six for the Ph.D. This course is graded satisfactory/unsatisfactory.

MIC 793. Directed Independent Readings: Selected Topics In Medical Microbiology and Immunology. 1-4 credits. FA, SP, SU

Conferences and reading assignments providing an opportunity for in-depth study of recent developments and associated problems in carefully selected and highly specialized areas of medical microbiology such as parasitology, mycology, clinical microbiology, pathogenesis, immunology, and epidemiology and public health.

MIC 795. Directed Independent Study. 4 credits.

Directed topical study in Microbiology and Immunology.

MIC 797. Directed Independent Research for Master's Degree Students. 1-8 credits. FA, SP, SU

Investigative work on selected subject. (Non-thesis research optional). L&R arr.

MIC 799. Master's Thesis. 1-6 credits. FA, SP, SU

Research, under departmental supervision, in connection with the preparation of the Master's thesis. Student must register for this course in any term when engaged in formal preparation of the Master's thesis; however, six credit hours are the maximum applicable toward the degree.

MIC 893. Directed Independent Readings: Selected Advanced Topics In Medical Microbiology And Immunology. 1-4 credits. FA, SP, SU

Conferences and reading assignments providing an opportunity for in-depth study of recent developments and associate problems in carefully selected and highly specialized areas of medical microbiology such as parasitology, mycology, clinical microbiology, pathogenesis, immunology, and epidemiology and public health.

MIC 897. Directed Independent Research for Doctoral Students. 1-8 credits. FA, SP, SU

Investigative work on a selected subject.

MIC 899. Doctoral Dissertation. 1-8 credits. FA, SP, SU

Research, under departmental supervision, in connection with the preparation of the doctoral dissertation. Student must register for this course in any term when engaged in formal preparation of the doctoral dissertation; however, 20 credit hours are the maximum applicable toward the degree.

MIM 720. Ethical and Professional Standards. 3 credits.

An intensive study of the CFA Institute Code of Ethics and Standards of Professional Conduct, the Global Investment Performance Standards (GIPS®), corporate governance issues and risks affecting companies.

MIM 722. Fixed Income and Derivatives I. 3 credits.

A study of fixed income investments, including basic characteristics of bonds in alternative sectors, valuation tools, and factors that influence bond yields. Also includes a study of derivative investments, including forwards, futures, options, and swaps. P. MBA 711.

MIM 723. Fixed Income Securities. 3 credits.

A study of fixed-income investments and portfolio management. Students will study the characteristics of fixed-income securities, emphasizing valuation techniques, risk/return tradeoffs, and the role of these instruments in investor portfolios.

MIM 724. Quantitative Analysis. 3 credits.

A study of elementary statistics, data collection and analysis, regression and correlation analysis, probability theory and distributions, hypothesis testing, and the time value of money. Also covers regression and correlation analysis and time series analysis as they are used in portfolio management.

MIM 730. Financial Statement Analysis I. 3 credits.

A study of financial accounting procedures and the rules that govern disclosure. Emphasis is placed on basic financial statements and how alternative accounting methods affect those statements, the analysis of financial statement relationships, and the implications of alternative accounting methods for financial analysis and valuation. P. MBA 703.

MIM 732. Economics of Investment Management. 3 credits.

A study of macroeconomic and microeconomic principles, including the key components of economic activity, macroeconomic theory and policy. Also a study of equity investments, including securities markets, efficient market theory, the analysis of equity risk and return (for industries and companies), and technical analysis. P. MBA 741.

MIM 734. Equity Analysis. 3 credits.

A study of the concepts and techniques that are basic to the valuation of equity securities. P. MBA 711, MIM 724.

MIM 737. Derivatives and Financial Risk Management. 3 credits.

A study of derivative instruments and their uses. Student will learn the features of major derivative securities, pricing and valuation techniques, and strategies for using derivatives as tools for risk management in a variety of contexts. Includes an evaluation of the ethical uses of derivative instruments.

MIM 740. Portfolio Management. 3 credits.

This course focuses on the theory and practice of modern portfolio management. Major topics will include modern portfolio theory, asset allocation, active and passive investment strategies, and performance evaluation and attribution. Students will study the proper construction and evaluation of portfolios for individuals and institutions and apply these concepts in a variety of contexts. P. To be completed in the last 9 hours of degree program of study.

MIM 755. Foundations of FinTech. 3 credits.

The course set the stage for understanding the FinTech landscape and ecosystem. FinTech refers to financial sector innovations involving technology-enabled business models that can facilitate disintermediation. Student will learn about the emergence of new business models in various areas of payments, banking, insurance and wealth management. Other topics covered include the core technologies driving FinTech, including cryptocurrencies, Blockchain, smart contracts, artificial intelligence (AI) and Big Data. Finally, students will learn about technological advances in data and analytics that are enabling these innovations.

MIM 766. Graduate Internship. 1-3 credits.

This course is intended to provide graduate-level credit for significant program-related practical experience, coupled with a research component that utilizes the context of this practical experience as its primary vehicle of inquiry. Students must work a minimum of 150 hours for the sponsoring employer during the semester. In addition, the student must complete a research project related to this work, which has been planned and carried out under the direction of a graduate faculty supervisor, with the approval and cooperation of the sponsoring employer. The student's internship employment and faculty supervision for the research component must be arranged before registration for the course will be allowed. The course is graded Satisfactory/Unsatisfactory and only 3 hours of internship credit may be used to satisfy graduation requirements. P. IC and approval of the MIMFA Program Director.

MIM 779. Seminar in Investments. 1-3 credits.

Exploration and analysis of selected problems and issues in investments, security analysis and portfolio management. Course content changes each semester as current and sometimes controversial issues within are discussed. This course is repeatable up to nine credits. P. Prerequisites depend on course content.

MIM 795. Independent Study and Research. 1-3 credits.

Advanced study and research in subjects not ordinarily covered by regularly scheduled courses. P. IC and approval of the MIMFA Program Director.

MMH 601. Introduction to Medical Humanities. 3 credits.

Introduces students to the field of Medical Humanities, with a specific focus on philosophy and medicine, literature/narrative and medicine, medical pedagogy, social justice, death and dying, religion and medicine, and suffering and meaning-making. Students will reflect on how course content influences their current or future clinical and/or scholarly work.

MMH 602. Humanism and Healthcare Careers. 1 credit.

This course will meet weekly via Zoom to connect with students enrolled in the Masters in Medical Humanities so that students can reflect on how their various coursework influences their current or future careers. Most weeks, a guest speaker will join the session to discuss their role in healthcare or academia (e.g., clinician, pastoral care, social worker, patient advocate, clinical ethicist, medical educator, etc.) and the importance of humanism and the humanities in their everyday work. The goal of this course is for students to reflect on how their experience in the Masters in Medical Humanities program is shaping their current work or paving the way for a future career path.

MMH 603. End of Life in the Clinical Setting. 3 credits.

This course is an experiential practicum that explores the intersection of clinical palliative care with medical humanities. Student will apply concepts from their foundational humanities courses with volunteering experiences with patients near end of life. Students will arrange volunteering experience with a local palliative care or hospice team.

MMH 710. Community of Practice for Scholarly Writing in the Medical Humanities. 1 credit.

Designed to be a "community of practice" for Medical Humanities students who are preparing their thesis paper or final capstone project, this course provides weekly opportunities for collaborative discussions and feedback on the overall writing process. Through both synchronous and asynchronous course activities, students will build upon their prior coursework and related learning experiences to 1) draft, revise, and integrate feedback into their work; 2) engage in constructive dialogue with peers about each other's writing; and 3) reflect on the development of their writing and learning.

MMH 711. Capstone Research in Medical Humanities and Ethics. 6 credits.

In this 6-credit course, students will work with a student-selected capstone mentor to design, propose, and present a capstone project that explores a specific topic in the medical humanities or attempts to address a problem relevant to the field of healthcare or the medical humanities. The form of the capstone project can vary, whether rooted in theoretical work or an applied project, and is largely dependent upon the student's chosen topic or area. Students will present their completed capstone project to the course director, capstone mentor, and program director. Faculty and fellow students in the MA program will be invited to the public portion of the presentation.

MMH 712. Thesis Research in Medical Humanities and Ethics. 6 credits.

In this 6-credit course, students will work with a student-selected thesis advisor to design, propose, write, and present a Master's thesis project that explores a specific topic in the medical humanities or attempts to shed light on a problem relevant to the field of healthcare from a humanities perspective. Students will present their completed thesis project to a thesis committee, which will include the course director, the student's thesis advisor, and the Master of Arts in Medical Humanities program director. Faculty and fellow students in the MA program will be invited to the public portion of the presentation.

MMH 792. Special Topics in the Medical Humanities: Professional Identity Formation in Healthcare Education. 1 credit.

This course will meet weekly via Zoom to discuss assigned material for the week related to professional identity formation in healthcare education, focusing specifically on the socialization of healthcare students, the hidden curriculum, mistreatment in the clinical learning environment, mental health and wellness, and the role of mentorship.

MMH 794. Special Topics in Medical Humanities. 3 credits.

Special Topics in Medical Humanities are courses offered for credit in which the subject matter or content may vary within specific sections across terms as indicated by that course's title and description. Most special topics courses can be repeated by students for additional credit, provided that the course sections are different. Special topics courses address specific issues within Medical Humanities that are not represented within required courses or offer an opportunity for a deeper or different look at a topic covered in a required course.

MMS 510. MCAT. 3 credits. FA, SP, SU

This course aims to prepare Creighton University undergraduate students for their MCAT examination. Using a combination of lecture, self-directed learning, small groups, and review session, the student will master content knowledge while developing test-taking skills. CR: Pre-health student or IC.

MMS 600. Foundations of Medicine. 4 credits.

This five-week immersive course is taken with the first-year medical students and introduces the basics of medical cell and molecular biology. The course will use lecture, case discussion, and problem-based learning discussion to expose students to common pathologies and various specialty topics in preparation for the systems block.

MMS 601. Human Physiology. 2 credits.

This course examines basic concepts of cellular physiology and organ system physiology of the nervous, endocrine, muscle, cardiovascular, respiratory, gastrointestinal, and renal systems, as well as multisystem integration. CR: IC.

MMS 602. Human Gross Anatomy. 5 credits.

Graduate students in the MS in Medical Sciences program have the opportunity to learn the detailed structure of the human body. Through integration of cadaveric dissection, a holographic atlas, and team-based learning, students will develop a thorough understanding of the 3D relationships necessary for a medical professional. CR: IC.

MMS 603. Microscopic Anatomy. 3 credits.

This course is for graduate students in the MS in Medical Sciences program interested in the structure and function of human cells, tissues and organs at the microscopic level. The goal of the course is for students to develop an understanding of the architecture of human cells, tissues, and organs and to relate microscopic structure to the function, or disfunction, of the human organism. CR: IC.

MMS 604. Clinical Embryology. 2 credits.

This is a course in human embryology designed to provide students with insight into the important correlation between human embryology and clinical problems associated with pregnancy and birth defects. The course will cover development of all of the systems of the body. The fetus, placentation, birth and delivery will also be covered. Major congenital malformations will be discussed in detail. CR: IC.

MMS 620. Medical Ethics and Humanities. 2 credits.

Through multiple small-group discussions, this course aims to prepare health professionals to provide respectful, humane patient care and to address current ethical problems in health care.

MMS 625. Fundamentals of Clinical Neuroanatomy. 4 credits.

This course presents the functional anatomy of the nervous system and employs it in clinical context. We will use a combination of lecture, lab, and clinical case review to study the relevant anatomy of the nervous system and pertain it to system disorders and injuries.

MMS 630. Human Head and Neck Anatomy. 3 credits.

This course is for Master's in Medical Sciences students and is held concurrent with a course on human neuroanatomy. Using a dissection- and clinical-based approach, students will study the structure and anatomical systems of the head and neck.

MMS 635. Directed Independent Research. 4 credits.

This course presents students with an opportunity to conduct original investigation under supervision and guidance of individual faculty mentor. CO: IDC 627; CR: IC.

MMS 640. Clinical Rotations. 2 credits.

This course provides opportunities to experience day to day applications of gross anatomy in the clinical specialties of surgery, radiology, and pathology. Weekly discussions of the various cases will be held during which the pertinent anatomical correlations will be analyzed as will methods of best conveying to health sciences students the clinical information gained. Students will be expected to write a synopsis of each case and conduct the necessary literature research for a current relevant bibliography. CR: IC.

MMS 645. Educational Techniques in Anatomy. 4 credits.

Master's in Medical Sciences students will have the opportunity to design and implement educational techniques appropriate for lecture, small group, and laboratory applications. Each student will prepare and deliver formal lectures and assist in teaching anatomy in the lab.

MMS 651. Capstone Project. 3 credits.

This course will present students with an opportunity to acquire foundational skills necessary for research in a medically-related discipline. After introduction to the scientific method and related topics, students will identify a mentor in the student's area of interest, develop a research proposal, and defend the research question and approach. Each student will then work with a Capstone Mentor to generate and present a poster summarizing their capstone project.

MOB 509. General Gross Anatomy. 4 credits.

Basic instruction in the gross anatomy of the upper extremity, thorax, and abdomen. This class is taught primarily by lecture, laboratory dissection, models, radiographic images, and various multimedia resources. Students are expected to meet with the instructors to complete additional requirements in current clinically relevant topics.

MOB 510. Histology. 3 credits.

Microscopic anatomy of normal mammalian and/or human tissues and organs. Light and electron microscopic aspects of the tissues and organs are studied. The developmental anatomy of the organ systems will also be presented. Students are expected to meet with the instructors to complete additional requirements in current clinically relevant topics.

MOB 511. Special Problems in Oral Biology. 1 credit.

Topics of interest to the student, literature review, development of research protocol.

MOB 512. Head and Neck Anatomy/Teaching Techniques. 3 credits.

Basic instruction in the Gross Anatomy of the Head and Neck. Special emphasis is placed on the clinical application of the anatomy to the various dental disciplines. Such topics include the anatomy and pathology of the TMJ and the distribution of the trigeminal and facial nerves with associated applied anatomy. This course is taught by lecture, laboratory dissection, models, radiographic images (x-rays, MRIs, and CTs), and various multimedia resources. Students are expected to meet with the instructors to complete additional requirements in current clinically relevant topics.

MOB 513. Oral Histology and Embryology. 3 credits.

Microscopic and developmental anatomy of the normal cells, tissues, and organs of the oral cavity with stress on teeth and related tissues. Emphasis will be given to the growth and development of the head and neck. Students are expected to meet with the instructors to complete additional requirements in current clinically relevant topics.

MOB 514. Introduction to Biostatistics and Its Applications. 2 credits.

Organizing and summarizing; elementary probability; sampling distributions, confidence intervals; hypothesis testing using parametric and non-parametric methods; sample size and power; regression and correlation; analysis of variance; experimental design principles and analysis.

MOB 515. Special Problems Oral Biology II. 1 credit.

Topics of interest to the student, literature review, development of research protocol.

MOB 516. Special Problems Chemistry I. 1 credit. FA

The goal of this course is to continue to expose students to the fundamentals of polymer chemistry as related to dental materials. The course will take a deeper exploration in to the key concepts of polymer chemistry, physical properties of polymers, and common techniques used in the characterization of dental materials. Practical application of polymer chemistry in dentistry will continue to be a theme throughout the course.

MOB 517. Special Problems Chemistry II. 1 credit. SP

The goal of this course is to continue to expose students to the fundamental of polymer chemistry as related to dental materials. The course will take a deeper exploration into the key concepts of polymer chemistry, physical properties of polymers, and common techniques used in the characterization of dental materials. Practical applications of polymer chemistry in dentistry will continue to be a theme throughout the course.

MOB 607. Teaching Practicum In General Gross Anatomy. 3 credits.

By assisting in the laboratory classroom teachers and working with students one-on-one in small groups, students will gain knowledge and skills to be successful in teaching General Gross Anatomy. The practicums are an opportunity to place into practice theories and approaches explored during first year coursework. Students complete a 5-week intensive course with a supervising instructor in order to refine and expand upon their teaching skills. Students are expected to meet all professional responsibilities including attendance, punctuality, appearance and professional relationships.

MOB 608. Teaching Practicum in Histology. 1 credit.

By assisting in the laboratory classroom teachers and working with students one-on-one in small groups, students will gain knowledge and skills to be successful in teaching Histology. The practicums are an opportunity to place into practice theories and approaches explored during first year coursework.

MOB 609. Special Problems in Oral Biology III. 1 credit.

Topics of interest to the student, literature review.

MOB 610. Teaching Practicum in Head & Neck Anatomy. 3 credits.

By assisting in the laboratory classroom teachers and working with students one-on-one in small groups, students will gain knowledge and skills to be successful in teaching Head & Neck Anatomy. The practicums are an opportunity to place into practice theories and approaches explored during first year coursework.

MOB 611. Teaching Practicum in Oral Histology & Embryology. 1 credit.

By assisting in the laboratory classroom teachers and working with students one-on-one in small groups, students will gain knowledge and skills to be successful in teaching Oral Histology and Embryology. The practicums are an opportunity to place into practice theories and approaches explored during first year coursework.

MOB 612. Special Problems in Oral Biology IV. 1 credit.

Topics of interest to the student, literature review.

MOB 700. Research for the Master's Thesis. 3-6 credits.

This course can be repeated to a maximum of nine credits.

MPS 509. Industrial Pharmacy. 3 credits.

This course will prepare students to design, manufacture and evaluate different pharmaceutical dosage forms in an industrial environment. The course content will include pre-formulation studies, formulation of liquid and solid oral pharmaceutical dosage forms, recent advances and trends in controlled or sustained release formulations, drug regulatory affairs and current good manufacturing practices.

MPS 531. Chemical Basis Drug Action I. 3 credits.

This course instructs the student on the chemical basis for drug behavior, both in vivo and in vitro. General chemical principles, physicochemical properties, and drug-receptor interactions are used to derive structure-activity relationships for important and commonly encountered classes of drugs. This permits the understanding of pharmacological and biopharmaceutical profiles of currently available drug products, and explains the scientific rationale behind their therapeutic use. Chemically based therapeutic case studies and structurally based therapeutic evaluations are utilized to help students develop a scientific basis for rational therapeutic decision-making. This practice-oriented approach, which emphasizes the relevance of chemistry to contemporary pharmacy practice, gives students the skills necessary to predict biological properties and therapeutic activities of future drug molecules. This course builds upon previously acquired knowledge of biochemistry, pharmaceuticals and basic pharmaceutical sciences principles, and compliments concepts being addressed in pharmacology. P. BMS 301.

MPS 532. Chemical Basis Drug Action II. 2 credits.

A continuation of MPS 531/PHA 337.

MPS 543. Basic Pharmacokinetics. 2 credits.

Pharmacokinetics is the mathematics of the time course of Absorption, Distribution, Metabolism, and Excretion (ADME) of drugs in the body. The biological, physiological, and physicochemical factors which influence the transfer processes of drugs in the body also influence the rate and extent of ADME of those drugs in the body. In many cases, pharmacological action, as well as toxicological action, is related to plasma concentration of drugs. Consequently, through the study of pharmacokinetics, the pharmacist will be able to individualize therapy for the patient.

MPS 544. Introduction to Research Methods and Biostatistics. 3 credits.

Students will identify and interpret research questions, hypotheses, variables, sampling methods, research designs, as well as, descriptive and inferential statistics. The emphasis is to evaluate and assess the validity and significance of these research components so there is appropriate interpretations of research results. The goal is for students to become critical readers and users of research so they can practice evidence-based pharmacy and contribute to pharmacy's knowledge base. Students will learn to interpret the validity and the statistics of a research report, but will not necessarily learn to conduct research or perform statistical calculations.

MPS 600. Ocular Pharmacology. 2 credits.

Utilization of knowledge of physiology, biochemistry and anatomy of the eye to develop an understanding of etiology and pharmacological therapy of various ocular diseases. Course content will include a review of anatomy, physiology and biochemistry of the eye, pharmacokinetics and drug delivery relevant to ocular therapy, etiology and pharmacological treatment of ocular diseases such as glaucoma, uveitis, cataract, retinopathy and age-related macular degeneration and cataract. Ocular effects of systemic drugs and ophthalmic toxicology will be examined, in addition to examining advances in ocular therapies.

MPS 602. Analytic Aspects of Pharmaceutical Sciences Research. 3 credits.

This course covers the theory, instrumentation and application of commonly used laboratory equipment, including, absorption spectroscopy (UV, visible and infrared); mass spectroscopy (MS), high pressure liquid chromatography (HPLC) and nuclear magnetic resonance (NMR), amongst others. The course will combine lectures with hands-on laboratory exercises/demonstrations by Pharmacy Sciences faculty.

MPS 603. Introduction to Pharmaceutical Materials Science. 1 credit.

This course provides an introduction to the excipients and inactive ingredients involved in pharmaceutical preparations. The physicochemical, toxicologic, and regulatory properties of common excipients will be discussed. In addition, the functional roles of common pharmaceutical excipients will be discussed.

MPS 608. Leadership Attributes for Professional and Personal Growth. 3 credits.

Learners will gain an understanding of the theoretical and practical aspects of leadership necessary for success in both their personal and professional lives. They will review and discuss various theories and approaches to leadership and personal and professional growth in a variety of scenarios to understand their development as leaders.

MPS 617. Advanced Pharmaceutics. 3 credits.

This course will provide an in-depth study of the physical and chemical principles which are involved in the development, formation and stabilization of selected pharmaceutical dosage forms for optimization of drug bioavailability and therapeutic utility.

MPS 621. Health Systems and Patient Safety. 3 credits.

This course examines structural, economic, service delivery, professional, and patient factors influencing contemporary pharmacy practice.

This course emphasizes development of a culture of best practices in patient safety. Included are concepts of safe patient care systems as well as public health principles and practices in the context of public responsibility.

MPS 633. Research Methods. 1-3 credits.

Laboratory rotations in which graduate students perform or observe methods used in pharmaceutical and administrative sciences research. The value of the methods and their applications to the research efforts of the pharmaceutical sciences faculty are described in detail. P. DC.

MPS 634. Pharmaceutical Dosage Forms and Drug Delivery Systems. 2-3 credits.

Basic principles of pharmaceutical dosage forms and drug delivery systems are taught with respect to formulating drugs for bioavailability enhancement and drug targeting. Pertinent pharmaceutical examples that are discussed include: Oral, parenteral, transdermal, aerosol, etc., with emphasis placed on their importance, formulation considerations and ongoing research.

MPS 641. Pharmacology I. 5 credits.

Pharmacology I introduces foundational principles of pharmacodynamics and pharmacokinetics and applies them to major drug classes across organ systems. Emphasis is placed on mechanisms of action, indications, dosing considerations, adverse effects, contraindications, clinically significant drug and food interactions, and monitoring. Students develop skills for rational, patient-centered medication decision-making and preparation for advanced therapeutics.

MPS 642. Pharmacology II. 5 credits.

Pharmacology II builds on Pharmacology I by advancing knowledge of infectious disease, CNS, and oncology pharmacotherapy. Students apply pharmacodynamics and pharmacokinetics to mechanisms, indications, dosing, adverse effects, contraindications, resistance, interactions, and monitoring. Emphasis includes pharmacogenomics, toxicology, and patient-specific factors to support safe, evidence-informed, patient-centered decisions.

MPS 652. Pharmacoeconomics. 3 credits.

This course introduces fundamental pharmacoeconomic topics, defines the terminology used in pharmacoeconomic research, and gives many examples using case studies. Students completing this course should be able to understand, interpret, and determine the usefulness of pharmacoeconomic research articles and also be able to design a pharmacoeconomic decision tree analysis.

MPS 691. Pharmaceutical Science Seminar. 1 credit.

Seminar in selected subjects for pharmaceutical sciences graduate students. P. DC.

MPS 692. Directed Independent Study. 1-5 credits.

Supervised independent projects that may include laboratory work, assigned readings, research papers, etc. Available in toxicology, biopharmaceutics, medicinal chemistry, pharmacodynamics and pharmacokinetics. P. Undergraduate or graduate stdg. and DC.

MPS 693. Directed Independent Research. 1-5 credits.

Supervised independent research for motivated students to become involved in ongoing original research projects of the pharmaceutical sciences faculty. P. Undergraduate or graduate stdg. and DC.

MPS 791. Journal Club: Latest Development in Pharmaceutical Science. 2 credits.

The field of pharmaceutical sciences is rapidly changing as exemplified by paradigm shift in drug discovery and development. Therefore, this course will help students develop a broader understanding of the latest developments in drug discovery and development processes and their future implications.

MPS 792. Pharmaceutical Sciences Discussion Series. 1-2 credits.

Graduate students in Pharmaceutical Sciences will learn how to read journal articles for optimum retention, critically evaluate the data, and objectively determine the paper's contribution to the over-all body of knowledge. In addition they will gain valuable presentation and public speaking skills.

MPS 793. Pharmaceutical Sciences Presentation Series. 1-2 credits.

This course focuses on scientific communication of research material in various situations. Students will read and understand journal articles for optimum retention, critically evaluate the data, and objectively determine the paper's contribution to the over-all body of knowledge. Emphasis will be on presenting information/research data in an appropriate and effective manner.

MPS 797. Master's Directed Independent Research. 1-4 credits.

Supervised original research. P. DC.

MPS 799. Master's Thesis. 1-8 credits.

Review of the literature and research data; writing of the thesis. Student must register for this course in any term when engaged in formal preparation of the Master's thesis; however, eight credit hours are the maximum applicable toward the degree. P. DC.

MPS 800. Solid-State Pharmaceutics. 3 credits.

Most of the drug molecules with either large or small molecular weights are produced and stored as solid materials. The characteristics of these pharmaceutical solids can affect solubility, dissolution, stability, flow properties, compressibility and hygroscopicity. This course will provide the students with a wide range of studies on pharmaceutical solids. This will include the definition of a solid, chemical bonding in solids, determination of their physical properties including polymorphs and pseudo polymorphs, physical transformations between polymorphs and solvates, chemical reactions in solid-state and solid-solid reactions in pharmaceutical products and process.

MPS 897. Doctoral Dir Independent Study. 1-6 credits.

Supervised independent research for motivated students to become involved in ongoing original research projects of the pharmaceutical sciences. This course is repeatable up to six credit hours.

MPS 899. Doctoral Dissertation Research. 1-12 credits.

Supervised dissertation research for Ph.D. student to become involved in ongoing original research projects in the field of solid-state pharmaceuticals or any other innovative drug delivery systems.

MPH 561. Exploring Holistic Health - Implications for Care and Policy. 3 credits.

This course explores different understandings of health and how these influence perceptions and practices of care as well as policies pertaining to public health care. Students will compare and contrast their own understandings with those of diverse groups and professionals encountered during a two-week program abroad.

MPH 601. Organization and Management of Public Health Services. 3 credits.

This course examines the organization, delivery, and financing of health care services from a managerial and policy perspective. Specific focus will be given to the role, responsibilities, and functions of public health services; the integral relationship of public health within the larger health system; and management principles and practices applicable to public health organizations.

MPH 602. Community Health Assessment. 3 credits.

This course examines the concepts, methods and practices for assessing the health of a community. Topics include measuring community health status, developing community health profiles, identifying the determinants of health, and the utilization of community health assessment in developing public health interventions.

MPH 604. Social and Behavioral Aspects of Public Health. 3 credits.

This course is an exploration of concepts and methods of social and behavioral sciences relevant to the identification and solution of public health problems. This course will focus on the basic set of competencies that is central to the field, including identifying theories, concepts, and models from a range of social and behavioral disciplines that are used in public health research and practice.

MPH 605. Epidemiology. 3 credits.

This course offers a foundation for the study of the distribution, history, and determinants of disease and disability in human populations. In addition to examining the biological basis of health, the course will explore social epidemiology and the interrelationship between the social and biological determinants of health.

MPH 606. Environmental Health. 3 credits.

This course examines the environmental factors that impact population health. This course focuses on the biological, physical and chemical agents affecting human health. Additional topic areas that will be explored include the regulatory framework for environmental health, workplace health, and contemporary issues in environmental justice.

MPH 607. Biostatistics. 3 credits.

This course focuses on descriptive and inferential statistical concepts, methods, and the applications of statistical methods in the analysis and assessment of population health.

MPH 608. Health Communication. 3 credits.

This course provides a foundation for understanding the concepts and best practices in health communication. Students will develop skills in building effective communication campaigns with multiple and culturally diverse audiences. This course will also address skills in the retrieval, management and dissemination of information that promotes population health.

MPH 609. Introduction to Community-Based Participatory Research. 3 credits.

This course provides an introduction to Community-based Participatory Research (CBPR). This course is NOT a methodology course; CBPR is an approach to conducting research that can be used with many research designs and methodologies. It is intended to provide students a grounding in the goals and application of CBPR; the theoretical background that informs CBPR; an introduction to theories of race, ethnicity, power, difference, gender and sexuality; the formation and maintenance of community partnerships; the use of CBPR to promote health equity and social justice; and the introduction of CBPR techniques to institutional review boards and funders.

MPH 611. Practice Experience. 3 credits.

Opportunity to apply the knowledge and skills acquired through core courses and elective/area of concentration under the supervision of a qualified preceptor who is a public health professional. P. Completion of pre-applied practice experience checklist (P-APEX).

MPH 612. Capstone. 3 credits.

In this final required course of the degree program, students are expected to integrate insights gained and competencies acquired throughout the program. Applying methods of scholarly inquiry and composition, students will synthesize insights and findings from their practice experience in a publishable-quality article or commentary and will present the findings to fellow students and faculty. P. MPH 611.

MPH 615. Ethical Issues in Public Health: A Global Perspective. 3 credits.

This course provides students with a foundational understanding of the ethical issues related to public health as a discipline and to its practice. The course will emphasize the global dimension of these issues along with their national and local repercussions. While students will explore the theoretical issues with the discipline itself (about the ethical framework best fits population health enterprise), there will also be a more in-depth study of concrete cases that will highlight the multiple and global dimensions of health and healthcare. Global public health ethical issues will be explored within the context of the social and systemic factors that affect population health across the globe. Concrete cases that will be explored may include (but will not be restricted to): obesity, pandemics and vaccination, disasters and humanitarian aid, conflict of interest in screening and medical guidelines, medical research agenda and global justice.

MPH 617. Emerging Global Health Issues. 3 credits.

This course presents an overview of global health issues through examination of major determinants of health and key areas of disease burden. Student will be introduced to the complex tapestry of social, economic, political, and environmental factors that affect the health of populations globally.

MPH 632. Human Resources for Healthcare Managers. 3 credits.

This course approaches human resources in healthcare organizations from a strategic perspective. It is designed to equip human resource managers and those acting in that capacity with an understanding of how human resource practices need to align with the strategic plan and mission of the organization. We will cover key human resources aspects: 1) job analysis, 2) recruitment and selection, 3) managing a diverse workforce, 4) performance management, 5) rewards and compensation, 6) organizational development and learning, and 7) quality improvement in human resources. In addition, we will discuss the legal contexts around human resource management and the broader labor market.

MPH 633. Health Economics and Finance. 3 credits.

The course examines fundamental theories in health economics and health care finance and the application of these theories in public health administration. The course emphasizes an understanding of economic issues within the larger social and political context in which public health operates. Economic and finance theories and practices pertinent to the public health sector as well as concepts and practices in financial management that support the successful leadership and administration of public health organizations will be explored in this course.

MPH 634. Health Planning and Marketing. 3 credits.

This course focuses on the understanding and application of health planning and health care marketing models and practices. The course encompasses a range of health planning and marketing models, methods and applications including health systems planning, strategic planning and marketing, program planning and social marketing for public health services. Recognizing the integral role of program evaluation in the planning process, this course will also review best practices for the integration of program evaluation as a component of the overall plan.

MPH 635. Public Health Leadership. 3 credits.

The purpose of this course is to explore leadership theories, identify leadership challenges, and analyze best practices in public health leadership. Emphasis is given to reflection and self-development of decision-making and leadership styles in assuming leadership roles within public health organizations.

MPH 636. Public Health Intervention. 3 credits.

In this course, students will explore critical foundation concepts of public health promotion and intervention, including the use of behavior-oriented theories and environment-oriented theories. Students will discuss how to apply these theories in a systematic step-by-step process for intervention development called intervention mapping.

MPH 637. Environmental Health Risk Communication. 3 credits.

This course covers key concepts of risk communication theory as well as their practical application to the collection and sharing of information in support of individual and community decision-making about public health issues. Emphasis in the course is on professional best practices, especially how to communicate with the general public, special populations, and the news media. Use of social media, especially for disaster communication and response, will also be explored. Challenges in communicating with underserved and non-English speaking populations will be discussed.

MPH 639. Communicable Disease and Prevention. 3 credits.

This course takes a comprehensive look at the history, theory and practical aspects of public health and communicable diseases. An overview will be given of critical topics related to the identification, control, and prevention of newly emerging, as well as long recognized infectious diseases with public health importance. The clinical presentation, modes of transmission, geographic distribution and prevention of these infections will be considered from an epidemiologic perspective. This course provides foundational knowledge that help prepare public health and healthcare professionals to work in the prevention and control of infectious diseases. Selected communicable disease control programs and policies will be assessed for their strengths and weaknesses.

MPH 640. Planetary Health and Sustainability. 3 credits.

This course will provide students with a big picture perspective of planetary health, research, policy, and practice issues related to it, and the implications and opportunities related to planetary health for public and population health globally. A key theme throughout will be consideration of health and social equity issues and the differential impacts of climate and other environmental changes on populations in light of these issues.

MPH 641. Environmental Health Policy. 3 credits.

This course provides an overview of the development, structure, function, and implementation of environmental health policy at local, national, and global scales.

MPH 643. Public Health Grant Writing. 3 credits.

Grant funding is critical to develop public health knowledge and infrastructure. Organizations such as community-based agencies may write grants to obtain funding to improve the health of their community, and other organizations, such as universities, may write grants to conduct research. In this course, students will learn major grant writing aspects: developing an idea for a project, writing a succinct and impactful one page summary of an idea, considering potential funding sources, and writing a grant application. This course presents a step-by-step approach to writing grants. Throughout this course, students will develop an idea into a written grant proposal. The course culminates in this draft proposal, not an actual grant submission. However, submission may be possible with further development.

MPH 645. Global Health Epidemiology. 3 credits.

This course focuses on the studies of the classic functions of field epidemiology and the application of epidemiological methods to unexpected global health issues. Students will examine global health interventions to understand features of successful programs.

MPH 707. Introduction to Mixed Methods. 3 credits.

This course provides an overview and introduction to mixed methods research, which involves collecting, analyzing, and integrating both quantitative and qualitative research in a study. After a brief review of the similarities and distinctions between quantitative and qualitative research, this introduction consists of defining mixed methods research and its foundations. We will then examine the types of mixed methods designs available and discuss the process of research as it relates to each of these designs. Throughout the course, we will cover the components of rigorous mixed methods.

MPH 795. Selected Topics MPH Pre-Practicum. 1-3 credits.

Students will complete the necessary pre-practicum requirements for their practicum placement in MPH 611. To achieve a successful practicum placement, MPH 795 Selected Topic Pre-Practicum requires the student to work in collaboration with their practicum coordinator and practicum course instructor.

MSL 600. Leadership Theory, Application and Reflection. 2 credits.

An introduction to leadership principles and development of leadership in action. This course focuses on building an understanding of leadership through the lens of the Jesuit mission and values with the application of reflection. Historic and theoretical leadership principles are studied along with the ethics of excellent leadership practices.

MSL 601. Strategic Planning. 3 credits.

This course integrates traditional strategic planning and thinking into action through data driven problem solving and decision-making. Students will use the application of portfolio/project management and evaluation from a leader's standpoint in aligning the development of a strategic vision towards a sustainable competitive advantage.

MSL 602. Communicating and Leading Across Cultures. 3 credits.

Students will explore interpersonal and organizational communications. Culture is conceptualized as dynamic and broad - including not only nation-states, but also organizations and groups of diverse social identities such as gender, race, social class and age. Students examine how communication both shapes and is shaped by culture.

MSL 603. Leading Innovation and Change. 3 credits.

Student will study leadership and management best practices that encourage innovative thinking in organizations including disruptive technologies, innovation, persuasive techniques, and decision-making under conditions of high uncertainty. Students will also gain greater understanding of power and politics in organizations and crisis management in both small and large organizations.

MSL 604. Approaches to Human Capital. 3 credits.

An interdisciplinary study of managing human capital including employee selection and management, mentoring programs, and team dynamics. Issues of human capital development and succession planning are also studied.

MSL 620. Leadership and Group Dynamics. 3 credits.

This course focuses on how and why leaders can effectively manage and facilitate group cohesion and development, structure, power in groups, group decision making characteristics and conflict resolution.

MSL 621. Cultural Dynamics of Leadership. 3 credits.

Students examine leadership theories through a lens of diversity, equity, and social justice. With an emphasis on inclusivity, this course explores how an ever-changing society presents opportunities and challenges for today's leaders. A historical perspective is provided to contextualize theory and practice. Students consider how diverse leadership styles are shaped by cultural values, perceptions, and context.

MSL 622. Humility and Leadership. 3 credits.

This course examines the concept of humility in leadership and its role within an organization. Topics include benefits of a humble leadership style, identifying key traits of a humble leader, humility as a personal growth strategy and possible challenges associated with being a humble leader.

MSL 623. Developing Tomorrow's Leaders. 3 credits.

This course provides students the opportunity to explore the concept of formal leadership development programs across disciplines. Students will analyze and compare formal leadership development programs. Additionally, students will design a formal leadership development program which can be implemented within their professional practice setting.

MSL 624. Leadership and Well-Being. 3 credits.

As employee or leader, well-being decisions comprise our daily lives. This course examines well-being from two unique but interconnected perspectives. Students will look internally to discern their personal well-being strategy as an emerging leader and then look externally to consider how to improve employee well-being within their organization.

MSL 625. Interpersonal Power and Politics. 3 credits.

This course facilitates the development leadership skills in the areas of interpersonal political skills and how to use them to promote positive change within organizations and society. Students will learn about leadership and power not only within themselves, but also within others. They will also contemplate how to live with a non-anxious presence, empowering themselves with a balanced perspective of power within our world. Finally, students will develop skills that empower them in practice.

MSL 626. Failing and Failure in Leadership. 3 credits.

In this course, students will examine the concept of failure, the process of failing, and how we gain resiliency and find hope in the midst of failure.

MSL 627. Leading Champions: Lessons by and from Extraordinary Athletes and Coaches. 3 credits.

This course studies leadership concepts through the real-life stories of extraordinary athletes and coaches. Students engage with the concepts of sports and coaching in order to understand how leadership impacts a variety of organizational facets and by examining how leadership theories, practices, and applications might influence perceptions of success or failure.

MSL 628. Contemporary Issues in Sports Leadership. 3 credits.

This course investigates the role of sports on economic, societal, and political institutions, in particular how contemporary issues – including diversity, equality, the media, race relations, and ethical and moral conduct – have come to dominate the sports industry and impact nearly every aspect of a country's economic, societal and political life.

MSL 631. Independent Study. 1-6 credits.

Students may arrange with an instructor to engage in a series of readings related to a specific topic and/or conduct research in an area approved by the department and under the direction of a faculty member. CR: DC.

MSL 632. Contemporary Issues in Leadership. 1-3 credits.

This course examines current environmental, social, and economic issues faced by leaders. Students will analyze decision-making processes within contemporary issues as well as reflect on the unintended consequences of the decisions made. Topics will be analyzed from an economic, social, and environmental leadership perspective utilizing the application of Jesuit charisms.

MSL 650. Sport at the Service of Humanity. 3 credits.

Sports provide opportunity for a deeper study of human relationships, humanity, and service to others. This course examines the Vatican's call to see a world where people "live like they play," specifically intersection of sport, faith, and humanity.

MSL 700. Foundations of Sports Leadership. 3 credits.

This course serves as a study of concepts within sports leadership. The course provides students a historical account of sports and sports leadership as well as the opportunity to examine those factors important to understanding the foundations of sports leadership. Students will examine key areas to include leadership theories and styles, effective communication, and the relationship between leadership, management, and coaching as it applies to different organizational frameworks. Additionally, students will evaluate and analyze the relationship between motivation, empowerment, and emotional intelligence and how and why these factors contribute to effective sports leadership.

MSL 701. Coaching and Leading Through an Ignatian Lens. 3 credits.

This course examines Ignatian values within the context of coaching and leadership. Students will analyze how these fundamental tenets fit into coaching and leadership practices as well as reflect on how these values apply to their own organizations. Topics are analyzed from an organizational leadership perspective utilizing the application of Jesuit charisms and sports leadership fundamentals.

MSL 702. Ethics, Sport, and Leadership. 3 credits.

This course examines ethics, sport, and leadership concepts and provides students the opportunity to gain a rich understanding of ethics and the implications of ethical challenges, decision-making, and leadership processes.

MSL 790. Leadership Capstone. 3 credits.

This capstone course requires students to apply the core theories and concepts in the Masters of Science in Organizational Leadership Program. This culminating course requires students to actively reflect on the Program curriculum and demonstrate what they have learned in the program. P. GRD 600, MSL 600, MSL 601, MSL 602, MSL 603, MSL 632 and minimum 27 total program credits.

NCR 620. Introduction to Conflict Engagement. 3 credits.

This course introduces students to the field of conflict engagement. It presents theoretical explanations of the causes of conflict and leads students to an identification and understanding of their response to and style of conflict engagement. There is a focus on explaining and distinguishing between a broad range of conflict engagement processes including negotiation, mediation, and facilitation, so that students will be able to apply the appropriate process to various types of conflict which they may encounter in their lives and practice.

NCR 621. Negotiation. 3 credits.

This course introduces students to negotiation as a method of conflict engagement. Students identify the theories, concepts, and skills necessary to negotiate in interpersonal, intergroup, and intragroup settings. The course provides students the opportunity to practice their negotiation skills in a variety of activities and exercises intended to strengthen their confidence as negotiators. The course emphasizes self-reflection by drawing special attention to students' personal conflict styles and determining the strengths and shortcomings of those styles in negotiations.

NCR 624. Dynamics of Conflict Resolution and Engagement. 3 credits.

This course examines the fundamental nature of conflict: how conflict arises; the patterns it follows; the different levels at which it gets expressed; and the different ways in which people, communities, organizations, and societies understand and approach conflict. The course considers a range of theoretical approaches to conflict and conflict resolution and looks at particular dynamics that define the way in which conflict plays out. The course considers particularly how conflict is defined by the interplay of power, communication, and culture.

NCR 629. Organizational Collaborative Practice and Conflict Engagement. 3 credits.

In today's competitive environment, organizations increasingly must cope with complexities, uncertainties, and conflict. The ability to build teams for collaborative work and to manage and learn from conflict effectively is critical in today's organization. In this course students learn techniques and approaches for organizational teambuilding, conflict management, and process facilitation and consulting.

NCR 632. Effective Conflict Engagement for Educational Leaders. 3 credits.

This course explores personal response to conflict as well as a variety of conflict interventions for elementary and secondary schools such as negotiation, mediation, facilitation, and formal hearing. The course addresses strategies for having difficult conversations with individuals or groups. Other topics include the restorative justice approach to discipline, special education mediation and IEP facilitation, and child custody conflicts between parents. CR: DC.

NCR 690. Family Systems in Conflict. 3 credits.

This course focuses on the special nature of family conflict, some of the dynamics to be considered when dealing with families in conflict and the different approaches to intervention and engagement in family conflict by a third party.

NCR 733. Practicum. 3-4 credits.

In consultation with the practicum faculty, students develop a practical field experience to further engage and apply their skills in a professional or organizational setting of their choice. Working with a site supervisor in the student's community, students demonstrate their ability to apply theory to practice and analyze situations using knowledge gained from previous coursework. CR: DC.

NUR 561. Definitions of Health - Implications for Care: Austria, Hungary and the United States. 3 credits. SU

NUR 561 explores different understandings of health and how these influence perceptions of care and policies pertaining to public health and health care. Students will compare and contrast their own understandings, perceptions, and knowledge about health care and public health in the U.S. with those of diverse groups encountered during a two-week program in Austria and Hungary, providing them with a unique opportunity to explore innovative thoughts and approaches for public health and health care in the United States. P. Junior or Senior standing.

NUR 571. Aligning Efforts for Health: Collaborative Models in West Africa. 3 credits. SU

This course provides students with a theoretical basis and foundation for participation in a Faculty Led Program Abroad related to collaborative practice and community engagement in West Africa. Students will explore their understanding of sustainable approaches to global health initiatives that impact healthcare delivery and access in West Africa. Topics include sustainable global partnerships, clean water resources, common health metrics for measurement of health and disease, cultural approaches to health, environmental health, and health care access. The course culminates with a ten-day immersion experience in Western Africa. During this trip student will interact with West Africa hospital administrators, physicians, nurses, students, educators, patients, families, and community leaders to gain insight on the challenges of and required knowledge, skills, and attitudes needed for collaborative and sustainable global partnerships. Student will be expected to compare and contrast their previous understanding of healthcare systems and public health initiatives to experiences in West Africa. Knowledge gained will be applied to their own future collaborative practice and community engagement. P. To participate in this course, students are required to be working toward a health professions major.

NUR 607. Pharmacology Across the Lifespan for Advanced Nursing Practice. 3 credits. FA, SP

In NUR 607, students and faculty examine the pharmacological effects and clinical uses of specific drug groups related to the care and management of neonatal, pediatric, adult and older adult patients in primary and acute care settings. Pharmacological principles, mechanisms of action, associated drug interactions, incompatibilities, side effects, contraindications, and patient education aspects of drug therapy are discussed. Problems inherent in drug therapy of specific patient populations, such as ethnic groups, neonates, children, pregnant or lactating women, and older adults, are emphasized. CO: Admission to the MSN/DNP program or permission of instructor.

NUR 614. Advanced Neonatal Assessment. 3 credits. SP

NUR 614 prepares advance practice neonatal nursing students to develop advanced comprehensive assessment of the neonate to age 2. The course integrates neonatal physiology and pathophysiology with advance techniques in history taking, physical, developmental, gestational age, cultural, and social family assessments. It also includes advance interpretation, diagnostic, and therapeutic procedures relevant to the neonatal nurse practitioner role, with 60 required laboratory hours. P. NUR 607, NUR 650.

NUR 618. Population-Based Health Care for Advanced Practice Nursing. 3 credits. SU

In NUR 618, primary care nurse practitioner students will extend their practice to incorporate the principles of population-based delivery of health care. This approach to health care is fundamentally based on a partnership between primary care providers and communities and the ethic of service. Population-based health care provides accessible, coordinated, continuous-over-time, comprehensive, and accountable services to a population. Students are provided opportunities to bridge and unite clinical skills and public health and to apply knowledge of epidemiology, health assessment, health promotion, cultural competence and interprofessional care to practice. P. NUR 684.

NUR 633. General Neonatal Management. 3 credits. SU

NUR 633 provides the student with knowledge of general management principles in the newborn nursery, convalescent nursery and upon discharge from the NICU. Course content includes nutrition, pain management, thermoregulation, resuscitation, transitional care, discharge planning, developmental follow-up, the grief process, and general infant care to age 2 years. P. NUR 614 and NUR 687; P or CO: NUR 685; CO: NUR 743.

NUR 643. Management of High Risk Neonate I. 4 credits. FA

NUR 643 provides the student with didactic content in common high risk maternal/fetal conditions, neonatal cardiovascular, pulmonary, gastrointestinal, hematological, neurological, dermatological and infectious disorders. Content includes the management of the more common neonatal diseases. P. NUR 633; CO: NUR 644; P or CO: NUR 686 and NUR 692.

NUR 644. Practicum II: Neonatal Nurse Practitioner. 2 credits. FA

NUR 644 is a preceptor-supervised course designed to continue the development of the neonatal nurse practitioner by focusing on providing care to a group of stable infants in a Level III NICU. The experience provides the student with exposure to the more common high risk maternal/fetal conditions, neonatal cardiovascular, pulmonary, gastrointestinal, hematological, neurological, dermatological, genetic and infectious disorders as well as palliative care, development care and bereavement issues. Prior to enrollment in this course students, in conjunction with their advisors, must secure approved preceptors. This practicum requires 150 direct clinical hours. P. NUR 743; CO: NUR 643.

NUR 650. Advanced Physiology and Pathophysiology Across the Lifespan. 3 credits. FA, SP

NUR 650 is designed to provide students with an understanding of the relationship between normal physiologic functioning and pathophysiologic phenomena and clinical manifestations of human responses to actual or potential health alterations across the lifespan, from neonate through the older adult. This base serves as one of the primary components for clinical assessment, decision-making, and care management. The following elements are integrated into the course: health states, critical thinking, professional communication, evidence-based practice, scientific integrity and ethical decision-making, genetics/genomics, and age and development.

NUR 652. Advanced Neonatal Pathophysiology. 1 credit. FA, SP

This course is designed to provide the student with an understanding of the relationship between normal embryology and fetal development and normal physiologic functioning with the pathophysiologic phenomena that can occur in the fetus and neonate. A relationship between the pathophysiologic occurrence and the consequential clinical manifestations is explored. This base serves as one of the primary components for clinical assessment, decision-making, and management of neonatal disorders. Students will work independently under the guidance of the faculty. This course is designated for those students who have taken an adult or lifespan advanced pathophysiology course, but need the required neonatal content provided to Creighton students.

NUR 660. Pathway to Success for Role Support Courses. 1 credit. FA, SP, SU

NUR 660 supports improving students' understanding of critical concepts and skills through content review and application in preparation for resuming specialty and role practicum courses. The curriculum will cover advanced pharmacology, pathophysiology, health assessment, medical management, and a competency simulation evaluation to provide hands-on experience and reinforce classroom learning. The course ensures content mastery before progression. This course aims to provide a structured approach to remediating clinical deficiencies, improving critical thinking, and ensuring competence in delivering high-quality patient care.

NUR 664. Well Child Care Management. 1 credit. SU

NUR 664 is designed for family and pediatric dual track nurse practitioner students with a focus on the well child from birth through adolescence. Special attention is given to health maintenance care of the high risk infant in the primary care setting. P. NUR 694 and NUR 687; CO: NUR 665 (Peds) or NUR 741 (Family); P or CO: NUR 685.

NUR 665. Practicum I: Care of the Well Child. 2 credits. SU

NUR 665 is the first preceptor-supervised practicum course for advanced practice nursing (APN) students, initiating their progression from novice to competent advanced practice nurses within the pediatric dual track nurse practitioner program. Building on the knowledge and skills gained in their baccalaureate programs and previous graduate courses, students focus on developing advanced clinical competencies. In clinical settings, students collaborate with preceptors who provide guidance and feedback in the areas of history-taking, physical assessment, and diagnostic reasoning in the care of the well child. Requires 150 direct clinical hours. P. Minimum 2000 hours clinical nursing experience in pediatrics. CO: NUR 664.

NUR 683. Statistics and Data Analysis for Evidence-Based Nursing Practice. 3 credits. FA, SP

NUR 683 focuses on descriptive and inferential statistics used in health care and foundational to the empirical "evidence" supporting evidence-based practice. Students will develop skills for evaluating published empirical research in nursing and related health care disciplines. Emphasis is on identifying the appropriate research design, statistical tests, and results interpretation given a specific practice based question. The course focuses on an applied perspective, with examples presented through discussion of material from the text book, material from actual studies, and critiques of selected articles from peer-reviewed journals. P. Successful completion of an Undergraduate statistics course.

NUR 684. Epidemiology. 3 credits. SP, SU

NUR 684 explores principles and methods of epidemiology as they are applied in advanced clinical practice with groups, communities, and populations. Infectious and noninfectious disease models are examined. Emphasis is placed on the application of epidemiological methods to questions related to individual, aggregate, community, and population health. This course highlights the interface between epidemiology, clinical practice, and public policies influencing health. P. Successful completion of an Undergraduate statistics course.

NUR 685. Exploring Evidence for Improving Outcomes. 3 credits. SP, SU

In NUR 685 students build on knowledge and skills needed for evidenced-based practice (EBP) that were developed in baccalaureate programs. Students are introduced to theoretical frameworks and their relationship in developing evidence for practice. Students explore strategies and models for EBP, along with methods for motivating and implementing change. Students identify a clinical practice or system problem, critically evaluate relevant research literature, and synthesize various sources of evidence to address the identified problem. Ethics of research, quality improvement projects, and the importance of maintaining ethical standards in both research and practice are also explored. P. MHE 600. NUR 683.

NUR 686. Evaluative Methods for Evidence-Based Nursing Practice. 3 credits. FA, SU

NUR 686 focuses on the translation of scientific knowledge into complex clinical interventions and the evaluation of outcomes of evidence-based practice changes. Emphasis is placed on research designs and methods aimed at outcomes evaluation. Students utilize data management methods to evaluate outcomes. P. NUR 685 or admission into the post-masters to DNP program.

NUR 687. Care Management and Outcomes Improvement. 3 credits. FA, SP

NUR 687 focuses on advanced nursing roles, patient-centered approaches to care, and improving outcomes using a care management process model. Theoretical formulations underlying relationship-based care, evidenced-based practice, quality improvement, and risk management are examined. Emphasis is placed on clinical quality and safety, and ethical and cultural issues related to care for specialized populations in unique clinical situations.

NUR 689. Organizations As Complex Adaptive Systems. 3 credits. SP

NUR 689 examines the complexity of diverse healthcare systems at the micro and macro levels. Using productive inquiry, students explore innovative infrastructures and processes that support the delivery of health care. Concepts, principles, and processes of complexity science, organization theory, management theory, and strategic planning are the main foci of this course. Students analyze the impact of accelerated change on their micro-systems and address the status quo, complacency, and standards of care within their respective practice environments. P. NUR 687 & NUR 692.

NUR 692. Financial Organization of U.S. Healthcare. 2 credits. FA, SU

NUR 692 is designed to provide a foundation in areas of accounting principles, financial planning and control, and use of a financial statement for decision-making and fiscal management. Specific content and issues related to healthcare financing and reimbursement and compliance for U.S. Medicare, Medicaid, and private insurers will be reviewed and differentiated from other selected countries.

NUR 694. Advanced Health Assessment Across the Lifespan. 3 credits. SP

NUR 694 prepares students to develop a comprehensive database, including physical, gestational, developmental, behavioral, cultural/social, and family assessment using clinical techniques and appropriate diagnostic tests. Students are also introduced to the diagnostic reasoning process for the purpose of establishing differential diagnoses. The knowledge, skills, and abilities learned provide a foundation for development as advanced generalists or as advanced practice nurses in primary and/or acute settings as they begin to diagnose acute, chronic, and episodic health problems or responses to health problems for individuals and families. The course includes 60 hours of laboratory experience. P. NUR 607, NUR 650. P or CO: NUR 756 for Family and Adult Gerontology Acute Care tracks.

NUR 702. Management of the High Risk Neonate II. 3 credits. SP

NUR 702 is a continuation of didactic content designed to provide students with an in-depth study of many neonatal conditions, including genetic and chromosome abnormalities and immunological, endocrine/metabolic, renal, genital, musculoskeletal, hepatic, and EENT disorders. Special emphasis is placed on the extremely low birth weight infant and ethical/legal considerations. The course provides an overview of the management strategies and diagnostic techniques used in the assessment and care of some of the more complex neonatal diseases, the care of the fragile child and primary care and management of infants and children 0-2 years. P. NUR 643; CO: NUR 753 or NUR 855:D (Neonatal track).

NUR 703. Psychiatric Mental Health across the Lifespan I. 4 credits. SU

NUR 703 is designed to provide the fundamentals needed for PMHNP students to apply the diagnostic reasoning process contained in, and associated with, the Diagnostic and Statistical (DSM) Manual. This course emphasizes methods in the practice of psychiatry in caring for individuals with mental health disorders which include; conducting a psychiatric interview, developing awareness to the neurological components that underpin common mental health disorders, developing an understanding in treatment including, pharmacology, therapy and non-pharmacological strategies. Faculty and students discuss common presenting psychiatric disorders seen in the general population. The structured diagnostic interview, physical examinations, diagnostic and laboratory tests, and alternative diagnostic tests, such as the psychological examination, are discussed as methods to assess symptoms and determine corresponding psychiatric diagnosis. Through selected clinical scenarios, students are provided with opportunities to apply their knowledge and skill in the diagnostic reasoning process. P. NUR 687 and NUR 694. Co: NUR 744. P or Co: NUR 685.

NUR 704. Health Care Policy and Law. 2 credits. SP, SU

NUR 704 addresses the legal, policy, political, and regulatory aspects of health care. Topical concepts include health policy from agenda setting through implementation to policy evaluation. Legal and regulatory concepts include the U.S. legal system, contracts, torts, negligence, corporate management, institutional liability, institutional taxation, antitrust laws, healthcare fraud and abuse, organizational admission and discharge, emergency care, treatment consent, medical records, regulation, among other issues. This course provides a foundational framework for assuming a leadership role in designing, influencing, and/or implementing policies to address critical health care issues.

NUR 714. Primary Care of Adult-Gerontology. 3 credits. SU

NUR 714 provides a theoretical and practical base for students to diagnose and manage common and uncomplicated acute episodic and chronic health conditions of adults that are managed predominantly in primary care settings. Content includes management strategies from the domains of nursing, medical, and pharmacological therapeutics, and emphasizes direct care to patients. Students will have opportunities to obtain advanced knowledge and clinical skill in performing common diagnostic and therapeutic procedures related to the role of the nurse practitioner. The student is expected to apply the concepts and theories discussed in class to the care of adult patients in concurrent and subsequent clinical practicum courses. P. NUR 687 and NUR 694; CO: NUR 741; P or CO: NUR 685.

NUR 718. Advanced Adult - Gerontology Acute Care Nursing I. 4 credits. SU

NUR 718 provides a theoretical base for Adult Gerontology Acute Care Nurse Practitioner students to diagnose and manage health problems of adults and older adults in a variety of settings including primary and acute care. Content includes management strategies from the domains of nursing and pharmacology and emphasizes direct care to patients with health problems in selected organ systems. Students are expected to apply the concepts and theories discussed in class to the care of adult patients across the lifespan in subsequent clinical courses. P. NUR 687, NUR 694. CO: NUR 739. P or CO: NUR 685.

NUR 720. Primary Care of Adult-Gerontology II. 3 credits. FA

NUR 720 is designed to provide a theoretical and practical base for students to diagnose and manage more complicated acute episodic and chronic health problems of adults across the lifespan that present predominantly in primary care settings. Content includes management strategies from the domains of nursing, medical, and pharmacological therapeutics, and emphasizes direct care to patients with health problems in selected body systems. The student is expected to apply the concepts and theories discussed in class to the care of adult patients across the lifespan in concurrent and subsequent clinical practicum courses. P. NUR 714; CO: NUR 721. P or CO: NUR 692.

NUR 721. Practicum II: Family Nurse Practitioner. 2 credits. FA

NUR 721 allows students to continue the development of the family nurse practitioner role by providing health care services to patients across the lifespan in primary care settings. This course emphasizes further development of clinical assessment and diagnostic reasoning skills and the diagnosis and treatment of common and more complicated acute episodic and chronic health problems of adults, pregnant women and children. Students will have opportunities to further advance knowledge and clinical skills in performing diagnostic and therapeutic procedures related to the role of the nurse practitioner. This practicum requires 150 direct clinical hours. P. NUR 741; CO: NUR 720 and NUR 722.

NUR 722. Child Care Management. 2 credits. FA

NUR 722 provides a theoretical and practical base for students to diagnose and manage common and uncomplicated acute episodic and chronic health problems of infants and children that are managed predominantly in primary care settings. Content includes management strategies from the domains of nursing, medical and pharmacological therapeutics. Students are expected to apply the concepts and theories explored in coursework to the care of pediatric patients in concurrent and subsequent clinical practicum courses. P. NUR 664; CO: NUR 721 (Family) or NUR 734 (Peds); P or CO: NUR 692.

NUR 726. Certificate Practicum: Family Nurse Practitioner. 3 credits. SP

NUR 726 is the final preceptor-supervised practicum course in the Post-Graduate Certificate Program in which students are immersed in the advanced practice nursing role as a family nurse practitioner. Students will develop competency in diagnosing and treating a full range of common acute and chronic health problems encountered across the lifespan and treated predominately in primary care settings. This practicum requires 225 direct clinical hours. P. NUR 720, NUR 721 and NUR 722; CO: NUR 731.

NUR 731. Primary Care of Adult-Gerontology III. 2 credits. SP

NUR 731 will focus on issues especially pertinent to the older adult. Students will develop knowledge and skills that will allow them to assess, diagnose, and clinically manage older adults as they respond to acute and chronic health problems. NUR 731 will also focus on syndromes unique to the older adult. P. NUR 720 NUR 722; CO: NUR 726 (Family Post Grad Certificate) or NUR 855 (BSN to DNP).

NUR 733. Psychiatric Mental Health Across the Lifespan II. 4 credits. SU

NUR 733 provides PMHNP students with an introduction to the neurosciences and the role the specialty plays in the understanding of the genetics, pathophysiology, diagnosis, and psychopharmacotherapeutic treatment of behavioral health disorders with emphasis on specialty populations. This course provides PMH-NP students with content on psychotherapy, and psycho-educational models with special emphasis on specialty populations. Various therapeutic approaches for use in specialty populations, including but not limited to cognitive behavioral therapy, parent management training, contingency management and, psychodynamic/psychoanalytic psychotherapy, are highlighted in this course. Building on principles in the advanced pathophysiology and advanced pharmacology courses, NUR 733 emphasizes relationships between neurobiology, symptomatology, and the implications for pharmacological, non-pharmacological and psychotherapeutic interventions for populations across the lifespan suffering from mental disorders. P. NUR 703; CO: NUR 735; P or CO: NUR 692.

NUR 734. Practicum II: Primary Care Pediatrics II. 2 credits. FA

NUR 734 is the second preceptor-supervised practicum course for advanced practice nursing (APN) students in which they progress along the trajectory from novice to competent advanced practice nurses within the pediatric dual track nurse practitioner program. The emphasis is on further development of clinical assessment and diagnostic reasoning skills, as well as diagnosing and treating common acute and chronic health conditions in children within the primary care setting. Students work with preceptors who provide guidance and feedback in the diagnosis and management of these conditions. This practicum requires 150 direct clinical hours. P. NUR 665; CO: NUR 722.

NUR 735. Practicum II: Psychiatric Mental Health Nurse Practitioner. 2 credits. FA

NUR 735 provides PMHNP students with skills necessary to identify specific psychiatric syndromes in the clinical setting. Emphasis will be placed on assessment practices and psychopharmacology decision making for patients across the lifespan. Students will build on their knowledge related to differential diagnoses/syndromes emphasizing child/adolescent populations as well as neurological disorders. Elements of interprofessional practice will be integrated into practicum experiences. Practicum experiences will include, the general psychiatric patient experiences and child/adolescent populations. This practicum course requires 150 direct clinical hours. P. NUR 744. CO: NUR 733.

NUR 737. Care of the Pediatric Patient in the Urgent/Emergency Setting. 2 credits. SP

NUR 737 provides a theoretical and practical base for students to diagnose and manage pediatric patients in the urgent/emergency care settings. Content includes a system's approach for common pediatric disorders presenting in the emergency/urgent care setting. Clinical decision making skills involved in assessing, triaging, diagnosing, and managing these patients are addressed. P. NUR 722; CO: NUR 740.

NUR 739. Practicum I: Adult-Gerontology Acute Care Nurse Practitioner. 2 credits. SU

NUR 739 is designed to allow students to develop competency in advanced health assessment and to begin the development of the adult-gerontology acute care nurse practitioner role by providing health care services to adolescents through older adults in a primary care setting. The course emphasizes the development of advanced physical assessment skills, recognition of pertinent physical assessment findings and application of diagnostic reasoning skills to design and implement evidence-based treatment plans for common and uncomplicated acute, episodic, and chronic health problems of adolescents through older adults in the primary care setting. The student develops knowledge on integrating health promotion and disease prevention into management plans. Students will have opportunities to obtain advanced knowledge and clinical skill in performing common diagnostic and therapeutic procedures related to the role of the nurse practitioner. This practicum requires 150 direct clinical hours. P. 2000 hours of direct patient care; CO: NUR 718.

NUR 740. Practicum III: Pediatric Acute and Primary Care in the Urgent/Emergency Care Setting. 2 credits. SP

NUR 740 is the third preceptor-supervised practice course for pediatric advanced practice students in which they further their role development by providing healthcare services to pediatric patients in the urgent/emergency care settings. The emphasis of this course is on the development of assessment and diagnostic reasoning skills in the assessment, triaging and management of pediatric patients in the urgent/emergency care settings. This practicum course requires 150 direct clinical hours. P. NUR 734; CO: NUR 737, NUR 899.

NUR 741. Practicum I: Family Nurse Practitioner. 2 credits. SU

NUR 741 is designed to allow students to begin the development of the family nurse practitioner role by providing health care services to individuals across the lifespan in primary care settings. The course emphasizes the development of clinical assessment and diagnostic reasoning skills to design and implement evidence-based treatment plans for common and uncomplicated acute, episodic, and chronic health problems of children, pregnant women, adults, and older adults in the primary care setting. Students will have the opportunity to obtain advanced knowledge and clinical skill in performing common diagnostic and therapeutic procedures related to the role of the nurse practitioner. This practicum requires 150 direct clinical hours. P. 2000 hours of direct patient care experience; CO: NUR 714, NUR 664.

NUR 742. Psychiatric Mental Health Across the Lifespan III. 4 credits. SP

NUR 742 is designed as the final didactic course for the Psychiatric Mental Health Nurse Practitioner students. Students continue to engage in the role of the advanced practice nurse consistent with the competencies of advanced nursing practice. Emphasis is placed on expanding opportunities that are available for advance practice nurses that have not yet been experienced or adequately explored. Also, students will hone their skills of combining both psychotherapeutic techniques with psychiatric medication management for both acute and chronic psychiatric patient populations in preparation for their certification exam. P. NUR 733; CO: NUR 774 or NUR 855.

NUR 743. Practicum I: Neonatal Assessment and Management. 2 credits. SU

NUR 743 is a preceptor-supervised practicum course designed to begin development of the Neonatal Nurse Practitioner (NNP) role by providing care to infants in the delivery room, transition nursery, intermediate care nursery, and diagnostic procedures in the intensive care nursery. The student applies knowledge of pathophysiology, neonatal assessment, emergency stabilization, radiological evaluation, laboratory interpretation, and diagnostic reasoning to the care of normal and low-risk neonates in the NICU. This practicum requires 150 direct clinical hours. P. 4000 hours of direct patient care in a Level III or Level IV NICU. CO: NUR 633.

NUR 744. Psychiatric Mental Health across the Lifespan Practicum I. 2 credits. SU

NUR 744 will focus on developing advanced competencies in the assessment of health status of patients that are encountered in the psychiatric mental health setting. The course is designed to provide the PMHNP students the opportunity to collaborate with preceptors to conduct comprehensive physical and mental health assessments, synthesize data from multiple sources, and determine an appropriate differential diagnosis for patients experiencing psychiatric disorders. Clinical Experiences will aim to incorporate introductory level psychiatric experiences including psychiatric patients in outpatient and/or inpatient clinical settings. In collaboration with their preceptor, students will begin to develop an advanced knowledge base regarding scope of practice, differential diagnoses, clinical skills, assessment tools/practices, medication management practices and therapeutic treatment modalities. The course will also explore dynamics of the specific psychiatric nurse practitioner roles, role expectations, and cultural implications. This practicum course requires 150 direct clinical hours. P. 2000 hours of direct patient care experience. CO: NUR 703.

NUR 746. Advanced Adult-Gerontology Acute Care Nursing II. 4 credits. FA

NUR 746 provides a theoretical and practical base for Adult-Gerontology Acute Care Nurse Practitioner students to diagnose and manage health problems of adults and older adults in a variety of settings including acute and critical care. Content includes management strategies from the domains of nursing, medicine, and pharmacology, and emphasizes direct care to patients with health problems in selected organ systems. P. NUR 718; CO: NUR 749; P or CO: NUR 692.

NUR 747. Advanced Adult-Gerontology Acute Care III. 2 credits. SP

NUR 747 provides a theoretical and practical base for Adult-Gerontology Acute Care Nurse Practitioner students to diagnose and manage health problems of adults and older adults in a variety of settings including primary, acute, and critical care. Content includes management strategies from the domains of nursing, medicine, and pharmacology, and emphasizes direct care to patients with health problems in selected organ systems. Building on prior knowledge, skills, and attitudes, students are expected to apply the concepts and theories discussed in class to the care of adults and older adults. P. NUR 746; CO: NUR 750 or NUR 855.

NUR 749. Practicum II:Adult-Gerontology Acute Care Nurse Practitioner. 2 credits. FA

NUR 749 is designed to allow students to continue the development of the adult-gerontology acute care nurse practitioner role by providing health care services to adolescents through older adults in acute care settings. The course emphasizes further development of clinical assessment and diagnostic reasoning skills to design, implement, and evaluate evidence-based treatment plans for common and more complicated acute, episodic, and chronic health problems of adolescents, adults, and older adults in the acute care setting. Students will have opportunities to further advance knowledge and clinical skill in performing diagnostic and therapeutic procedures related to the role of the nurse practitioner. This practicum requires 150 direct clinical hours. P. NUR 739; CO: NUR 746.

NUR 750. Certificate Practicum: Adult-Gerontology Acute Care. 5 credits. SP

NUR 750 is the final preceptor supervised practicum course for students in the post-graduate certificate program in which they are immersed in the advanced practice nursing role as an adult-gerontology acute care nurse practitioner. Students will develop competency in the diagnosis and management of common and chronic health problems of young, middle age, and older adults who present and are treated predominantly in acute and critical care settings. This practicum requires 375 direct clinical hours. P. NUR 749. CO: NUR 747.

NUR 752. Embryology and Genetics of the Developing Newborn. 2 credits. SP, SU

NUR 752 is designed to prepare neonatal advanced practice nurses to use embryology, genetics, and developmental concepts when assessing neonatal and pediatric patients with a variety of healthcare conditions.

NUR 753. Certificate Practicum: Neonatal Nurse Practitioner. 5 credits. SP

NUR 753 is the final preceptor-supervised practicum course for neonatal practitioner (NNP) students in the post-graduate certificate program in which students are immersed in their advanced practice nursing role. The course allows students to complete the trajectory from novice to competent advanced practice nurse by providing care to a group of critically-ill infants in the Level III or Level IV NICU. The emphasis of the course is on developing competence in diagnosing and treating a full range of common and complex disorders seen in the neonatal population. This practicum requires 375 direct clinical hours. P. NUR 644; CO: NUR 702.

NUR 756. Health Promotion and Disease Prevention in the Gerontological Population. 2 credits. SP

NUR 756 prepares the student to utilize health promotion and health protection principles in the delivery of care to the older adult and their families, and caregivers. Demographic trends and stereotypes, as well as biological and psychological theories of aging are explored. Quality of life issues through the utilization of health promotion strategies are a focus combined with prevention strategies for age specific diseases and syndromes. Cultural, ethnic, spiritual, and age sensitive issues are addressed. Collaborative strategies to improve outcomes using evidence-based protocols with multi-disciplinary personnel are emphasized.

NUR 762. Principles of Teaching & Learning. 3 credits. SP

This course provides the novice educator with foundational knowledge of teaching and learning theories, principles, and strategies. Students in this course will formulate desired learning outcomes and identify pedagogical strategies for diverse learners in both academic and clinical care delivery settings. P. Program Admission or Instructor Consent.

NUR 763. Educational Assessment & Evaluation Strategies. 3 credits. SU

NUR 763 presents key concepts for assessing and evaluating learning outcomes and teaching effectiveness at the learner, course, and program levels. Students will explore and develop various strategies for assessment, engage in data analysis, and analyze legal and ethical considerations related to assessment. P. NUR 762 or Instructor Consent.

NUR 764. Innovations in Curriculum Design, Program Assessment, & Accreditation. 3 credits. FA

Students in NUR 764 will gain an understanding of the various factors influencing nursing education and curriculum development. Emphasis will be placed on innovative curricular designs to meet the evolving needs of diverse learners. Students will also apply knowledge of assessment and evaluation to explore the role of accreditation standards in education and in healthcare. P. NUR 763 or Instructor Consent.

NUR 766. Nurse Educator Role Transition. 1 credit. SU

NUR 766 is a seminar component required for reflection, inquiry, and synthesis of the nurse educator role. Students will reflect on their professional development as they begin their transition from nurse clinician to nurse educator. P. NUR 764, NUR 769.

NUR 767. Nursing Educator Capstone Seminar. 1 credit. FA

NUR 767, students will integrate elements of the evidence-based decision-making process with systematic review of the scientific literature. Students identify a problem of importance in academia or clinical education, search and critically appraise the literature related to the identified problem and its resolution, and propose an evidence-based approach for addressing the problem and improving outcomes. CO: NUR 764.

NUR 768. Certificate: Nurse Educator Practicum. 3 credits. SP

NUR 768 allows students in the Nurse Educator Certificate Program to engage in activities that meet the core competencies for academic nurse educators. Under the supervision of an experienced educator-preceptor, students will complete a teaching practicum in which they will assess learning needs, design and implement appropriate pedagogical strategies and perform formative and summative assessments for a cohort of learners. Students will produce a scholarly paper in which they synthesize the literature related to a chosen pedagogical strategy and propose a plan to implement and assess the strategy. P. NUR 762, NUR 763, NUR 764, and 2000 hours of direct patient care experience; P or CO: NUR 766.

NUR 769. Nurse Educator Practicum I: Clinical Focus. 1 credit. SU

In NUR 769, students will apply advanced nursing theory to improve the care of a selected population of interest. Students will integrate knowledge of advanced pathophysiology, pharmacology, and health assessment into care management of a selected population to achieve defined health outcomes. The practicum emphasizes social determinants of health and care management strategies and their impact on individual and population health outcomes. Students will identify an area of scholarly inquiry in collaboration with faculty and preceptors. 1 credit hour; 75 practicum hours. P. NUR 687, NUR 694, NUR 762 and 2000 hours of direct patient care experience. CO: NUR 763 or IC.

NUR 774. Certificate Practicum: Psychiatric Mental Health across the Lifespan Nurse Practitioner. 5 credits. SP

Residency: NUR 774 is the final preceptor-supervised practicum course in the post-graduate certificate program in which students are immersed in the full scope of the advanced practice nursing role as a Psychiatric Mental Health Nurse Practitioner. Students will develop competency in diagnosing and treatment of a full range of common acute and chronic psychiatric mental-health problems of adult, older adults, pregnant women and children/adolescents who present and are treated predominantly in psychiatric-mental health settings. This practicum course requires 375 direct clinical hours. P. NUR 735; CO: NUR 742.

NUR 776. Practicum I: Complex System Leadership. 2 credits. SU

NUR 776 is designed to provide practicum experiences to increase the breadth of understanding of the competencies required of the leadership role and shifting to a new paradigm of leading in complex times. Through productive inquiry and organizational assessment, student examine the structures, processes, and outcomes important in the delivery of patient care. Students begin to identify the impact of accelerated change on the micro system. This course requires 150 practicum hours. P. NUR 689. P or CO: NUR 685.

NUR 777. Practicum II: Resource Management. 2 credits. FA

NUR 777 is designed to provide practicum experiences in the application of leadership competencies associated with relationship building, human resource management, and human resource leadership skills. Students apply effective communication and relationship management skills for influencing organizational behaviors. Federal and state regulations are reviewed and assessed for their impact on organizational performance, clinical outcomes, risk, and safety. Students evaluate individual, group, and team performance within their organizations, and develop strategic strategies for creating and sustaining a culture where quality and safety are paramount. Systems thinking skills are utilized as an approach to analyze structures, processes, and outcomes. This course requires 150 practicum hours. P. NUR 776, NCR 620-795 Elective Course; CO: NUR 787.

NUR 778. Strategic Systems Leadership. 3 credits. SP

NUR 778 students develop leadership principles utilizing competencies necessary for strategic leadership in health care systems. Students examine clinical microsystems influence on patient safety, satisfaction and improving performance. Clinical microsystems will be assessed utilizing microsystems analysis, cost indicators, strategic operational planning, healthcare finance and performance improvement metrics. Systems analysis will be completed utilizing various systems archetypes. P. NUR 787; CO: NUR 779.

NUR 779. Practicum III: Leading and Improving Quality. 2 credits. SP

NUR 779 students practice within their specialty role and apply principles of information monitoring and benchmarking analysis to lead process improvement of delivery models and work design to improve meso and macro systems, safety, quality, and outcomes. Visionary thinking is encouraged on issues that impact the macrosystem by developing new delivery models to improve quality through innovative work design, systems improvement and analyzing benchmarking data. This course requires 150 practicum hours. P. NUR 777; CO: NUR 778; NUR 899 or NUR 900.

NUR 780. Practicum IV: Quantum Executive Leadership. 2 credits. SU

NUR 780 students compose skills of leading healthcare organizations in constant motion and change. Students practice transformational leadership by synthesis of evidence, identification of patterns, and adaption and outcomes analysis. Students formulate strategies to influence policy and improve structure, process, and outcomes in macrosystem leadership by incorporating relational and whole systems thinking. This course requires 150 practicum hours. P. NUR 779; CO: NUR 888 and NUR 899 or NUR 900.

NUR 781. Nursing Administration and Leadership Innovations Seminar. 2 credits. FA

NUR 781 students advance competence of specialized knowledge and skills in macrosystems leadership through career path development and implementing roles in the leadership of innovative care delivery systems. Students integrate reflective practice to address population health ethical dilemmas and global leadership trends in resolving complex healthcare issues. P. NUR 888; CO: NUR 782.

NUR 782. Practicum V: Macrosystems Innovations. 3 credits. FA

NUR 782 students practice within their specialty role as they continue to develop competence in macrosystems leadership including: disruptive innovation, forming medical staff relationships, academic relationships, representing nursing to governing bodies, evaluating community healthcare needs, diversity, and ethics through involvement in the broader community. This course requires 225 practicum hours. P. NUR 780; CO: NUR 781 and NUR 899 or NUR 900.

NUR 783. MSN Scholarly Project Seminar. 1 credit. FA

In NUR 783 students will integrate elements of the evidence-based decision-making process with systematic review of the scientific literature. Students identify a problem of importance, in healthcare leadership search and critically appraise the literature related to the identified problem and its resolution and propose an evidence-based approach for addressing the problem and improving outcomes. P. NUR 776; P or CO: NUR 686; NUR 777.

NUR 784. Nurse Manager Residency. 3 credits. SP

NUR 784 is designed to engage students in activities that meet the core competencies for nurse managers. Under the supervision of an experienced manager, students will demonstrate skill, knowledge, and abilities in the advanced nursing leader role. Students will complete and disseminate their scholarly project to stakeholders and the wider nursing community. This course requires 225 practicum hours. P: All required Research and Theory Core, Leadership and Policy Core, Role Support and Specialty Role courses.

NUR 787. Organizational Transformation. 3 credits. FA

In NUR 787, students focus on maximizing the human resource potential within the organization. Students analyze the factors commonly associated with healthy work environments, and explore the impact of interprofessional collaboration and other evidenced-based management practices on professional nursing practice, performance, clinical outcomes, risk, and safety. Students examine ethical, legal, and regulatory policies and issues in human resource management. P: NUR 689; P or CO: NUR 686; CO: NUR 777.

NUR 795. Directed Independent Study. 1-6 credits. FA, SP, SU

Independent project on a topic designed by the student with approval of the adviser and program chair. P: Instructor consent.

NUR 796. Directed Independent Study. 1-6 credits. FA, SP, SU

Independent project on a topic designed by the student with approval of the adviser and program chair. This course is graded Satisfactory/Unsatisfactory. P: Instructor consent.

NUR 798. Nurse Educator Residency. 3 credits. SP

The Residency allows students to engage in activities that meet the core competencies for academic nurse educators. Under the supervision of an experienced educator-preceptor, students will complete a teaching practicum in which they will assess learning needs, design and implement appropriate pedagogical strategies and perform formative and summative assessments for a cohort of learners. Students will complete and disseminate their scholarly project to stakeholders and the wider nursing community. This practicum requires 225 direct clinical hours. P: NUR 764, NUR 769; P or CO: NUR 766.

NUR 810. Care of the Acute and Chronically Ill Child. 4 credits. SU

NUR 810 is designed to provide students with didactic content in common pediatric problems seen in the acute care setting as well as care and coordination of the chronically ill child. Content covers common pediatric disorders in the neurological, respiratory, cardiovascular, gastrointestinal, genitourinary, musculoskeletal, & hematological systems. Clinical decision making skills involved in the assessment of patients and the planning and implementing of therapeutic interventions associated with various disorders are addressed as well as concepts surrounding care of the medically fragile child. P: NUR 737; CO: NUR 812.

NUR 812. Practicum IV: Pediatric Acute Care Nurse Practitioner. 2 credits. SU

NUR 812 is the fourth preceptor-supervised practicum course for advanced practice nursing students. The course allows students to further their role in providing health care to pediatric patients and their families in the acute care setting. The emphasis is on further developing clinical assessment and diagnostic reasoning skills in the management of common pediatric illnesses seen in the acute care setting. This practicum course requires 150 direct clinical hours. P: NUR 740; CO: NUR 810, NUR 899.

NUR 814. Care of the Critically Ill Child. 3 credits. FA

NUR 814 builds on previous coursework by further strengthening the foundation for advanced clinical management of acutely ill children. This course focuses on applying the care management process to selected high acuity pediatric conditions in the critical care setting. Selected issues related to high acuity pediatric conditions in the critical care setting. Key issues related to high-acuity disorders, including the management of compromised respiratory, neurological, and cardiovascular systems, are explored. Students are prepared for triage, assessment and stabilization of deteriorating patients in the critical care environment, with an emphasis on pharmacologic management, basic ventilator management, and other therapeutic interventions. The course emphasizes a deep understanding of human physiology, the pathophysiology of disease states, and the scientific rationale behind management strategies. P: NUR 810; CO: NUR 816.

NUR 816. Practicum V: Pediatric Acute Care Nurse Practitioner II. 3 credits. FA

NUR 816 is the fifth preceptor-supervised practicum course for advanced practice nursing students, focusing on the continued development of the pediatric acute care nurse practitioner role in treating pediatric patients and their families in acute and critical care settings. This course emphasizes advanced clinical assessment, diagnostic reasoning, and evidence-based management of common and more complex pediatric conditions with increasing acuity. This practicum course requires 225 direct clinical hours. P: NUR 812; CO: NUR 814, NUR 899.

NUR 855. DNP Practicum III. 2 credits. SP

Practicum III is the third practicum course for students in the Doctor of Nursing Practice program in which students continue to develop competencies in their role specialty. The emphasis of the course is on developing competence in their role specialty. Students will register for one of the following specialty sections: Section B: Adult-Gerontology Acute Care; Section C: Family; Section D: Neonatal; Section E: Psychiatric Mental Health. This practicum requires 150 direct clinical hours. P: NUR 644 (Neonatal); or NUR 721 (Family); or NUR 735 (Psychiatric Mental Health); or NUR 749 (Adult-Gerontology Acute Care). CO: NUR 899 and NUR 702 (Neonatal); or NUR 899 and NUR 731 (Family); or NUR 899 and NUR 742 (Psychiatric-Mental Health); or NUR 899 and NUR 747 (Adult-Gerontology Acute Care).

NUR 856. DNP Practicum IV. 2 credits. SU

NUR 856 is the fourth supervised practicum course designed for students in the Doctor of Nursing Practice program in which students continue to develop competence in their role specialty. As students practice within their role specialty, they apply principles of epidemiology and concepts and theories related to health care policy and law within the health care setting and the profession. This practicum requires 150 direct clinical hours. Students will register for one of the following specialty sections: Section B: Adult-Gerontology Acute Care track; Section C: Family track; Section D: Neonatal track; Section E: Psychiatric Mental Health track. P: NUR 684, NUR 704, NUR 731 and NUR 855 (Family track); or NUR 747 (Adult Gerontology Acute Care track); or NUR 702 (Neonatal track); or NUR 742 (Psychiatric Mental Health track). CO: NUR 899.

NUR 857. DNP Practicum V. 3 credits. FA

NUR 857 is the fifth practicum course for students in the Doctor of Nursing Practice program in which students continue to develop competence in their role specialty. As students develop competence in their role specialty, they apply principles of systems, conflict resolution, and group process facilitation while implementing a scholarly project. This practicum requires 225 direct clinical hours. Students will register for one of the following specialty sections: Section B: Adult-Gerontology Acute Care track; Section C: Family track; Section D: Neonatal track; Section E: Psychiatric Mental Health track. P. NUR 856; CO: NUR 899.

NUR 888. Executive Leadership. 3 credits. SU

NUR 888 focuses on the nurse leader's role in maximizing organization strategic performance through ethical leadership and empowered collaboration. Students engage in analytic and dialectic approaches to address challenges to organizational availability and issues influencing organizational performance, such as uncompensated care, competition, consumerism, capital needs associated with technology innovations, and facility renovation and expansion. Students formulate policies and plans for ensuring the development and availability of appropriate resources to support the mission, strategic initiatives and quality goals of the practice environment and comply with regulatory and national standards. P. NUR 778.

NUR 899. DNP Scholarly Project Seminar. 1 credit. FA, SP, SU

NUR 899 is designed to document a synthesis of the student's educational experiences, growth and knowledge and expertise in an area of nursing practice. Students choose a project that allows them to collaborate with scholars from nursing and other disciplines to design, manage, and evaluate clinical practices and organization systems. This project serves as a foundation for future scholarly practice. PLEASE NOTE: The student completes a minimum of 3 credit hours in NUR 899, during which he or she develops the Scholarly Project. NUR 899 is taken in 1 hour increments. Once a student has enrolled in the first hour of NUR 899, the student must continue to enroll in a minimum of one credit hour of NUR 899 until all prerequisites for the Residency Course have been met. Requirements for Satisfactory completion of each NUR 899 credit will be identified in the syllabus. This course is graded satisfactory/unsatisfactory. P. NUR 686.

NUR 900. DNP Scholarly Project. 1-4 credits. FA, SP, SU

NUR 900 is designed to provide post-graduate DNP students with an opportunity to build upon the research, leadership, policy, and role support courses. The practicum will serve as a venue for the post-graduate DNP student to design their scholarly project by collaborating with stakeholders within multiple microsystems or a macrosystem; creating and fostering relationships within professional and lay groups; identifying policy implications for multiple microsystems or a macrosystem; applying principles of negotiation, systems design, and conflict management in planning the implementation of their scholarly project. Please Note: The student completes a minimum of 6 credit hours in NUR 900 which he or she develops the scholarly project and complete a minimum of 225 leadership clinical hours. (Each credit associated with the leadership clinical hours equates to 75 contact clinical hours). NUR 900 is taken in 2-4 credit hour increments. Once a student has enrolled in six (6) credit hours of NUR 900, the student must continue to enroll in a minimum of one (1) credit hour of NUR 900 until all prerequisites for the Residency Course have been met. This course is graded satisfactory/unsatisfactory. P or CO: NUR 686; Admission as a post graduate DNP student.

NUR 901. Residency: Advanced Practice Nurse. 2-4 credits. FA, SP, SU

NUR 901 is the final practicum course for post graduate advanced practice nursing students in the Doctor of Nursing Practice degree program in which they continue the development of their current role and/or specialty. Students engage in the role of the advanced practice nurse consistent with competencies of their doctoral education for advanced nursing practice. Under the direction of the faculty/project advisor, students complete the process of implementing, evaluating, and disseminating their scholarship project and specify implications for practice, research, policy, and education. P. All required Research and Theory Core, Leadership and Policy Core, Role Support, and Role Specialty Courses; CR: IC.

NUR 902. DNP Residency. 5 credits. FA, SP, SU

NUR 902, a role immersion course, is the final practicum course for students in the Doctor of Nursing Practice program in which they continue the development of their role specialty. As fully as possible, students engage in their role specialty consistent with role specialty essential competencies and the essential competencies of doctoral education. This residency course requires 375 clinical hours: 175 are direct clinical hours/200 are indirect clinical hours. Students complete the process of implementing, evaluating, and disseminating a scholarly project and specify implications for practice, research, policy and education. Students will register for one of the following specialty sections: Section A: Adult-Gerontology Primary Care track; Section B: Adult-Gerontology Acute Care track; Section C: Family track; Section D: Neonatal track; Section E: Psychiatric Mental health track; Section F: Pediatric Dual track. P. Successful completion of all required Research/Theory Core, Leadership/Policy Core, Role Support and Role Specialty courses. Instructor permission required.

NUR 903. Residency: Nursing Administration and Leadership. 2-4 credits. FA, SP, SU

NUR 903 is a role immersion course and is the final practicum experience for nursing administration and leadership students. As fully as possible, students engage in the role of the nurse executive consistent with the end of program competencies. Students implement and evaluate the outcomes of their practice improvement project and specify implications for practice, research, policy, and education. The results of the project will be disseminated. This course requires 150-300 practicum hours. P. All required Research and Theory Core, Leadership and Policy Core, and Role Support Core courses and Instructor permission required.

PHR 531. Topics in Pharmacology and Drug Discovery Journal Club. 1 credit. FA

The most ground-breaking studies (classic through recent) in the field of pharmacology are discussed in a round-table format. Students will learn the basics of the scientific method, study design, experimental technique theory and general chemical principles, physiochemical properties and drug-receptor interactions used to derive structure-activity relationships for important drug classes and predict biological properties. This course is repeatable up to 7 credit hours.

PHR 532. Hot Topics in Neuroscience Journal Club. 1 credit. SP

Continuation of PHR 531. This course is repeatable up to 11 credit hours. P. DC.

PHR 536. Drugs and Drug Targets. 2 credits.

The course Drugs and Drug Targets offers a detailed exploration of fundamental concepts underlying drug action and provides foundational knowledge necessary to develop into a research scientist, educator or other position requiring understanding of drugs and drug targets. The class format will include didactic lectures with open discussions.

PHR 537. Fundamentals of Neuroscience. 3 credits. FA, OD

This course will provide a detailed exploration of cellular, molecular and systems neuroscience and provide foundational knowledge necessary to becoming a neuroscientist. The class format will include didactic lectures with open discussions and self-directed computer simulated learning activities.

PHR 595. Directed Independent Study. 0-5 credits. FA, OD, SP, SU

Supervised independent projects that may include laboratory work, assigned readings, research papers, etc. Available in autonomic pharmacology, cardiovascular pharmacology, exocrine pharmacology, and neuropharmacology. This course is repeatable up to 17 credit hours. CR: DC.

PHR 597. Directed Independent Research. 1-4 credits. FA, OD, SP, SU

Supervised independent research for motivated students to become involved in ongoing original research projects of the pharmacology faculty. This course is repeatable up to 24 credit hours. CR: DC.

PHR 631. Medical Pharmacology I. 5 credits. FA

Human pharmacology and therapeutics. Lectures, conferences, and demonstrations.

PHR 632. Medical Pharmacology II. 5 credits. SP

A continuation of Medical Pharmacology I.

PHR 650. Introduction to Neuropharmacology. 3 credits. SP

This course is designed as an introductory course in pharmacology and neuropharmacology for students who have majored in or who have professional interests in biology, chemistry, biochemistry, psychology, pre-health professions and pre-medicine. Pharmacology is more than the study of the therapeutic uses of drugs. It is a science which uses the basic concepts of biology and chemistry to determine how drugs affect the organism. Neuropharmacology applies the basic principles of pharmacology to the nervous system and the tissues and organs that the nervous system regulates. Pharmacology gives a unique perspective in understanding how cells, organ systems, and organisms function. Pharmacology uses a systematic approach to investigate drug mechanisms causing a biological event for therapeutic use—from the molecular level to the whole animal. These pharmacological approaches also allow us to study how biological systems fail to function, providing information on the etiology of disease. Pharmacology research is essential for the development, testing and clinical use of drugs to treat disease.

PHR 667. Developmental Biology. 4 credits.

This is the graduate course designation for the undergraduate course BIO 467. Students are expected to fulfill all of the requirements for the undergraduate course (including the laboratory). To fulfill the graduate component of this course, students will write a research review article throughout the semester under the supervision of Dr. Kristina Simeone (and their research PI) that bridges material learned in class and their research.

PHR 711. Receptor and Molecular Pharmacology. 3 credits. AY, SP

Exhaustive treatment of receptor and molecular pharmacology that considers historical development of concepts, radioligand receptor binding, drug-receptor interactions, receptor characterization and isolation, and signal transduction.

PHR 715. Foundational Science. 4 credits. OD

This intensive foundation course introduces the students to the scientific fields of cell and molecular biology, genetics, immunology and pharmacology.

PHR 720. Fundamentals of Brain Imaging, Recording, and Stimulation. 3 credits.

This course will provide an advanced introduction to common techniques/methods used in the primate brain for recording (e.g., multiunit recordings, electrocorticography, electroencephalography, and magnetoencephalography), imaging (e.g., magnetic resonance), and stimulating (transcranial magnetic stimulation, transcranial direct-current and alternating current stimulation). The class format will include didactic lectures with open discussions.

PHR 721. Systems Neuroscience. 3 credits.

This course provides an in-depth coverage of the structure and function of human brain networks, including all major sensory systems (e.g., vision, motor) and higher-order neurocognitive systems (e.g., working memory, attention). Interactions among distinct neuronal networks during information processing will also be explored. The class format will include didactic lectures with open discussions. P. PHR 537.

PHR 722. Theories & Advancements in Developmental Cognitive Neuroscience. 2 credits.

This course will provide students with a foundational knowledge of major theories that govern research in developmental cognitive neuroscience, as well as historical context and advancements in the field. Students will engage in advanced Socratic discussion, facilitate class sessions, and reflect on the practical implications of multiple developmental theories in historical and present-day research contexts. The class format will include didactic lectures, Socratic discussions and reflection on the practical implications of theories in historical and present-day research contexts. P. PHR 537.

PHR 723. Physiology of Neuronal Populations. 3 credits.

This course will provide a foundation in the concepts, methods, and goals of population-level neurophysiology covering mini- and macro-columns and neural systems of the primate brain (e.g., motor system). Students will also learn in-depth functional neuroanatomy of supra-thalamic structures. The class format will include didactic lectures with open discussions. P. PHR 537.

PHR 750. Research Discussions In Pharmacology & Neuroscience. 1 credit. FA, SP, SU

Students will meet with their course director once weekly to discuss laboratory research topics as assigned by the course director. Topics will usually be pertinent to the research activity of the course director. Instruction will be given through a combination of didactics, small group sessions, student presentations and independent study. This course is repeatable up to 17 credits. CR: DC.

PHR 760. Research Rounds In Pharmacology & Neuroscience. 1-3 credits. FA, SP

This course will teach students how to formally present their research progress and results, and will provide students with frequent feedback by faculty members and fellow students. This course is repeatable up to 12 credit hours. CR: DC.

PHR 790. Research Laboratory Rotations. 1-5 credits. FA, OD, SP, SU

Laboratory rotations in which graduate students perform or observe methods used in pharmacological research. The value of the method and its application to the research efforts of the pharmacology faculty are described in detail. This course is repeatable up to 5 credit hours. CR: DC.

PHR 791. Pharmacology & Neuroscience Seminar. 1 credit. FA, SP

Seminars in selected subjects for pharmacology & neuroscience graduate students. This course is repeatable up to 12 credit hours.

PHR 794. Special Topics in Pharmacology & Neuroscience. 1-4 credits. FA, OD, SP, SU

PHR 795. Directed Independent Study. 1-6 credits. FA, SP, SU

Directed Independent Study. This course is repeatable up to 40 credit hours.

PHR 797. Master's Directed Independent Research. 1-6 credits. FA, SP, SU

Supervised original research. This course is repeatable up to 20 credits. CR: DC.

PHR 799. Master's Thesis. 1-6 credits. FA, SP, SU

Review of the literature and research data; writing of the thesis. Student must register for this course in any term when engaged in formal preparation of the Master's thesis; however, six credit hours are the maximum applicable toward the degree. This course is repeatable up to 6 credit hours. CR: DC.

PHR 897. Doctoral Directed Independent Research. 1-6 credits. FA, SP, SU

Supervised original research. This course is repeatable up to 50 credit hours. CR: DC.

PHR 899. Doctoral Dissertation. 1-6 credits. FA, SP, SU

This investigative work is the principal area of research carried out by the candidate during doctoral studies. It is conducted under the direct supervision of the candidate's major adviser and dissertation committee in preparation for the doctoral dissertation. Twenty credit hours are the maximum applicable toward the degree. Students will register for this course during formal preparation of the doctoral dissertation. This course is repeatable up to 6 credits. P. PHR 897.

PHY 511. Physical Optics. 3 credits. ENY, SP

Mathematical representation of waves; interference, diffraction and polarization; coherence and incoherence; lasers; Fourier analysis and synthesis. P. PHY 202, or PHY 214, or PHY 222. CO: PHY 512.

PHY 512. Optics Laboratory. 1 credit. ENY, SP

Experiments in geometrical and physical optics: interferometry; lasers and holography; analytical methods based on optical principles. Satisfies Magis Core: Designated Technology. 3L. CO: PHY 511.

PHY 531. Quantum Mechanics. 3 credits. FA

Development of the formalism of non-relativistic quantum mechanics; applications to the harmonic oscillator, the hydrogen atom, square-well potential, and scattering. P. PHY 301 and PHY 471.

PHY 533. Quantum Computing. 3 credits. ENY, SP

Introduction to quantum computing. Classical computing, bits, digital logic gates, Boolean algebra, reversible computing, error correction, and computational complexity. Quantum computing, qubits, quantum gates, linear algebra, quantum error correction, quantum programming, entanglement, quantum protocols, and quantum algorithms.

PHY 541. Thermodynamics And Statistical Mechanics. 3 credits. FA

Laws of thermodynamics, thermodynamic variables, thermodynamic potentials; kinetic theory, distribution functions, classical and quantum statistics. P. PHY 214 or CHM 331 or PHY 222 or PHY 202; and MTH 246.

PHY 551. Mathematical Physics. 3 credits. OD

Mathematical methods for the representation of physical processes in space and time. Fourier and other complete representations; vector calculus; tensors and matrices. Selection and emphasis on topics keyed to needs of students enrolled. P. PHY 202 or PHY 222; MTH 347.

PHY 553. Computational Physics. 3 credits. ONY, SP

The course offers an introduction to scientific computing techniques for physics students. The course will offer training in computational software and programming language to model complex systems and/or to analyze data. Examples are drawn from a variety of subfields of physics. P. PHY 214 or PHY 222 or DC.

PHY 559. Gravitation and Cosmology. 3 credits. OD

An introduction to standard big bang cosmology utilizing Einstein's general theory of relativity. Topics in relativity will include tensor analysis, Riemannian geometry, and the Einstein equation. Topics in cosmology will include the Friedman-Robertson-Walker metric, the age of the universe, dark matter and dark energy, and early universe thermodynamics. P. PHY 301.

PHY 561. Nuclear Physics. 3 credits. ENY, SP

Application of elementary quantum mechanical theory and relativity to the study of nuclear structure, radioactive decay, and nuclear models. P. PHY 531.

PHY 562. Nuclear Instruments And Methods. 2 credits. OD

Laboratory work in nuclear physics designed to teach the methods and procedures of experimental nuclear physics at an advanced level and to familiarize the student with modern research equipment and its use. 3L. P. PHY 302 or IC.

PHY 565. Radiation Biophysics. 3 credits. FA, ONY

A systematic study of the mechanisms by which ionizing radiation affect cells and biomolecules, pertaining to radiation therapy. Topics include: Physical mechanisms for radiation absorption, Kerma, dose, LET, track structure, water radiochemistry, mathematical survival models, DNA damage, repair mechanisms, RBE, OER, linear no-threshold model, bystander effects, and dose fractionation. CR: IC.

PHY 566. Physics of Medical Imaging I. 3 credits. ENY, SP

A systemic study of medical imaging including projection x-ray, mammography, fluoroscopy, and computed tomography. For each imaging modality, the mathematical foundation, physical mechanisms, technology involved in clinical implementation, technique strengths and limitations, quantification of image quality, and routine quality assurance procedures will be examined. CR: IC.

PHY 567. Physics of Medical Imaging II. 3 credits. ENY, FA

A systemic study of medical imaging including projection x-ray, mammography, fluoroscopy, and computed tomography. For each imaging modality, the mathematical foundation, physical mechanisms, technology involved in clinical implementation, technique strengths and limitations, quantification of image quality, and routine quality assurance procedures will be examined. P. PHY 566.

PHY 571. Condensed Matter Physics. 3 credits. OD

An introduction to the structure and dynamics of solids and liquids including solid state physics. Topics include the structure of crystalline, amorphous and self-similar (fractal) matter as conveyed by scattering techniques, the vibrational properties of crystals, the dynamics of liquids, electron dynamics in crystals (including band theory), response functions, percolation theory, and phase transitions (with an emphasis on critical phenomena, scaling and renormalization). P. PHY 301 or CHM 341 or IC.

PHY 572. Condensed Matter Laboratory. 1 credit. OD

Laboratory work designed to acquaint the student with spectroscopy techniques used in condensed matter and material science, including: static and dynamic light scattering, Raman spectroscopy, X-ray diffraction, scanning tunneling microscopy, and dielectric spectroscopy. 3L. CO: PHY 571 or IC.

PHY 587. Laser Physics. 3 credits. OD

A thorough review of the essential optical and physical principles needed for understanding laser characteristics, operation and design. Topics include the principle of detailed balance, absorption, stimulated emission, gain, obtaining population inversions, pumping requirements, laser cavity modes, Gaussian beams, laser resonators, Q-switching, mode-locking, and an overview of specific laser systems including gas-tube and solid-state lasers. CR: IC.

PHY 595. Special Topics. 1-3 credits. OD

A course treating physics topics of special interest. The course will be subtitled in the Schedule of Classes and may be repeated under different subtitles. CR: IC.

PHY 611. Classical Mechanics. 3 credits. ENY, FA

Variational principles, Lagrange's equations, two-body central force motion, rigid-body motion, transformations, small oscillations.

PHY 621. Electromagnetic Theory. 3 credits. FA, ONY

Electromagnetic fields, application of Maxwell's equations to electromagnetic waves and their interaction with matter.

PHY 631. Quantum Mechanics I. 3 credits. ONY, SP

Development of the formalism of quantum mechanics with applications to simple systems.

PHY 641. Statistical Mechanics. 3 credits. ENY, SP

Review of thermodynamics, classical and quantum statistical theory, applications to current fields of interest.

PHY 661. Physics of Radiation Therapy. 3 credits. ENY, FA

A systemic study of the use of radiation in the treatment of cancer. Topics include clinical radiation generators, interactions of ionizing radiation with matter, measurement techniques for dosimetry, gamma, electron and ion beams, beam quality, dose distribution, mathematical/computational dose estimation, treatment planning, field shaping, IMRT, brachytherapy, HDR therapy, SSRS, SBRT. P. PHY 301, BIO 202; Graduate standing.

PHY 662. Radiation Dosimetry and Protection. 3 credits. ONY, SP

A survey of personal and environmental dosimetry and monitoring with an emphasis on ionizing radiation. Topics include photon and neutron beams, particle interactions, stopping power, range absorbed dose, charged particle equilibrium, measurement techniques, cavity theory, ionization chambers, thermoluminescence, photographic, chemical, and calorimetric dosimetry, pulse-mode-detectors, scintillation materials, semiconductor dosimeters, biophysical models. P. PHY 301, BIO 202; Graduate standing.

PHY 791. Graduate Seminar. 1-3 credits. FA, SP

Oral presentation and critical discussion of subjects in physics or related fields by invited speakers, faculty, and students. This course is repeatable up to 4 credit hours.

PHY 792. Medical Physics Seminar. 0.5 credits.

A series of lectures and discussion led by program faculty students and guest speakers. Topics will include the latest research in medical physics and allied disciplines, debates on topics of social relevance, and professional development. Students will be responsible for presenting a seminar focusing on a subject that is relevant to their master's research or on a subject stimulated by their clinical rotation. This course is repeatable up to 2 credit hours. CR: IC.

PHY 793. Directed Independent Readings. 1-3 credits. FA, SP, SU

Advanced instruction in areas of special interest to the faculty, such as the following: atomic physics, nuclear physics, particle physics, solid state physics, surface physics, statistical mechanics, foundations of physics; biophysics. P. IC.

PHY 795. Directed Independent Study. 1-3 credits. FA, SP, SU

Advanced study in a specific area of interest to the faculty. P. IC.

PHY 797. Directed Independent Research. 0-3 credits. FA, SP, SU

An independent research project under the guidance of a member of the faculty. Weekly conferences. Written report of work required at the end of each semester. P. IC.

PHY 798. Medical Physics Clinical Rotation. 3 credits.

Clinical rotations within area hospitals under the direction of a mentoring medical physicist. Students will observe Treatment planning; Treatment delivery; Quality assurance; Routine diagnostic procedures as well as special procedures (SRS, SBRT, HDR, etc.). Students will also shadow radiologists involved in various areas of diagnostic and interventional radiology including rad/fluoroscopy, mammography, MRI, CT, ultrasound and nuclear medicine. P. Instructor Consent; Graduate standing.

PHY 799. Master's Thesis. 1-6 credits. FA, SP, SU

Research in connection with the preparation of the Master's thesis. Students must register for this course in any term when engaged in formal preparation of the master's thesis; however, six credit hours are the maximum applicable toward the degree. P. DC.

PMC 601. Paramedicine Leadership. 3 credits.

This course begins with the fundamental concepts and theories of leadership. Students will reflect on their own experiences with leadership and the concepts of leadership and leadership styles that they have developed through prior studies and social experiences in prior years. The students will learn about the current theories of situational leadership, servant leadership, transformational leadership and others.

PMC 602. Organizational Development and Organizational Change. 3 credits.

In today's ever-changing business environment, it is imperative for leaders within Paramedicine organizations to understand the process of organizational development and how it can be leveraged to promote organizational effectiveness. They must also understand the role of organizational change and how change affects individuals, organizations, and processes. This course is designed to advance students' knowledge of organizational development and change, familiarizing students with the fundamentals of organizational behavior, change theory, organizational leadership and strategic management. Students will assess and diagnose Paramedicine organizations with respect to artifacts, espoused values, mission statements, vision statements, performance goals, objectives and outcome measures.

PMC 603. Clinical Practice and Quality Assurance. 3 credits.

Patient care in Paramedicine is most frequently provided in isolated settings outside of hospitals and clinics by one individual or a small team of two or three emergency medical technicians and paramedics. Assuring up-to-date competency, compliance and quality are important systemic challenges in the field of Paramedicine management and leadership. This course will follow the steps of a sound Quality Improvement Program beginning with assessing opportunities, determining how to collect the necessary information, collecting and analyzing data, and utilizing data for quality improvement. Students will learn how to develop and utilize quality metrics both unique to their organizations as well as those determined by regulatory agencies.

PMC 604. Paramedicine Financial Management. 3 credits.

Paramedicine fiscal management is complex and diverse. Paramedicine spans the healthcare, public safety, firefighting, not-for-profit, for-profit, hospital system subsidiary agency, aero medical services, military services and other sectors of the economy, each with differences in funding sources, reporting requirements, budgetary cycles, and fiscal management strategies. EMS fiscal management must be competent and current to remain competitive and serve the interests of the community.

PMC 605. Ethics in Paramedicine. 3 credits.

This course focuses on the practical application of foundational concepts of ethics to clinical, administrative, and educational settings for Paramedicine professionals including ethical case analyses. Given the special environments in which Paramedicine operate, there will be an emphasis placed on interprofessional collaboration and communication. Paramedicine shares a set of medical and research ethics with medicine and nursing, however, Paramedicine leaders and managers must also be competent in the Paramedicine culture and special environment in which EMS operates.

PMC 606. Education for Paramedicine Professionals. 3 credits.

This course provides a graduate-level learning opportunity for Paramedicine professionals to develop an understanding of the principles, practices and theory of Paramedicine education. Those students who complete this course will be prepared to administer, plan, develop and advocate for Paramedicine education and training programs at multiple organizational levels, including nationally accredited institutions of higher learning, municipal and other government-based training agencies, and independent for profit and not-for-profit training agencies, as well as serving in governmental regulatory positions that have oversight responsibilities for Paramedicine education and training. Employee orientation and employee development processes will also be explored.

PMC 607. Human Resource Management in Healthcare. 3 credits.

Students will be introduced to the importance of strategic human resources management in organizations, with a focus on healthcare enterprises. Topics covered will include recruitment, hiring, compensation, training, and motivating employees to create a productive and dynamic work environment. The course will also examine the impact of the legal, economic and legislative environment on strategic human resource management, as well as explore the impact of labor relations on the organization and employee.

PMC 608. Paramedicine Law, Regulations and Risk Management. 3 credits.

The field of Paramedicine is governed by a complex set of federal, state and municipal laws and regulations. Paramedicine leaders need to be aware of the applicable law and regulations, as well as the interpretations and actions established as a result of these laws. In addition to an overview of the US judicial system, civil liability, risk management, negligence, and employment law topics will be explored.

PMC 609. Paramedicine Research. 3 credits.

Evidence-based research has a profound influence on Paramedicine operations. This course is designed to introduce basic concepts related to scientific and social inquiry. While students will not be conducting and completing original research as part of this course, basic research methodology and the processes necessary to conduct a study will be reviewed. Critical analysis of research studies will be completed, with an emphasis on reviewing the strength of the evidence.

PMC 620. Practicum in Paramedicine Leadership. 3 credits.

The practicum is designed to be a hands-on experience intended to allow the student to apply culminated knowledge in a real world Paramedicine leadership environment. With the guidance of the faculty advisor, the student will determine a suitable practicum site and emphasis of study, developing a detailed proposal to guide completion of the fieldwork project during the term. P. Department Consent.

PMC 640. Independent Study. 1-3 credits.

Students who take independent study credits are expected to study an area of interest in Paramedicine leadership in great depth. The topic is developed in consultation between the student and faculty mentor, based on ideas the student has expressed in the Independent Study Project Proposal. This project will require an in-depth literature review as well as extensive data gathering, analysis, and synthesis of material into a final written paper. P. Department Consent.

PMC 650. Capstone Project. 3 credits. FA, SP, SU

PMC 650 is designed to provide the student with the opportunity to apply their acquired knowledge in Paramedicine leadership, while continuing to explore and enhance skills as Paramedicine leaders. Projects will be developed by students in consultation between the student and faculty mentor. P. PMC 601, PMC 602, PMC 603, PMC 604, PMC 605, PMC 606, PMC 607, PMC 608, and PMC 609.