Masters Program Nutrition (MPN)

MPN 5106 Scientific Writing (1)
Co-requisite(s): MPN 5210
This course introduces the evidence-based practice (EBP) analysis process and provides a structured format for students to begin interpreting and applying current research. Students will critically evaluate peer-reviewed journal articles, determine their appropriateness to the topic being addressed, and demonstrate the ability to write clear, concise, and coherent passages for future research project classes.

MPN 5110 Leadership I (1)
MPN 5110 Leadership I educates students on an overview of theoretical frameworks and concepts for the practice of leadership in organizations. Students have the opportunity to examine and discuss these theories and concepts and reflect on how they relate to the Army profession in a variety of environments. The theories and concepts in this course expand upon and complement leadership doctrine in ADP 6-22.

MPN 5120 Leadership II (1)
Pre-requisite(s): MPN 5110
MPN 5120 Leadership II builds on the foundation from Leadership I. It continues to educate students on an overview of theoretical frameworks and concepts for the practice of leadership in organizations. Students have the opportunity to examine and discuss these theories and concepts and reflect on how they relate to the Army profession in a variety of environments.

MPN 5121 Research Project I (1)
Co-requisite(s): MPN 5220
Pre-requisite(s): MPN 5106 and MPN 5210
The course continues the evidence-based practice analysis process initiated in Scientific Writing (MPN5106). Students expand their detailed literature review outline into a complete narrative literature review document. Students identify one research topic theme to develop a research abstract and poster presentation that demonstrates their ability to articulate the evidence synthesized in a variety of forums.

MPN 5130 Leadership III (1)
Pre-requisite(s): MPN 5110 and 5120
MPN 5130 Leadership III builds on the concepts introduced in Leadership I and II. It continues to educate students on an overview of theoretical frameworks and concepts for the practice of leadership in organizations with further application. A series of executive skills sessions exposes the students to key skills and tools for success as a Company grade leader and Dietitian.

MPN 5210 Research Methods I (2)
This course is the first in a series of two courses that, in conjunction with Scientific Writing, provide the foundational knowledge and skills required for successful completion and defense of student research projects. Research Methods I introduces students to basic and advanced concepts related to research design and statistics.

MPN 5216 Exercise Physiology (2)
Co-requisite(s): MPN 5231
Pre-requisite(s): MPN 5309 and 5314
Course uses lecture, discussion, and practical exercises to develop an in depth, applied knowledge of factors affecting physical human performance. A range of topics is addressed, including muscle physiology, cardiovascular kinetics in physical activity, exercise energy metabolism, training adaptations, exercise/training recommendations, physiological testing theory and validity, and physiology in extreme environments.

MPN 5217 Medical Nutrition Therapy II (2)
Pre-requisite(s): MPN 5407 and MPN 5314
This clinical nutrition course prepares future registered dietitian nutritionists by providing foundational knowledge of chronic disease states common among the American population. Each disease-specific block of instruction addresses related anatomy & physiology, pharmacology (prescribed medications, OTC considerations, drug nutrient interactions), MNT recommendations, comorbidities, and lifecycle considerations.

MPN 5220 Research Methods II (2)
Co-requisite(s): MPN 5121
Pre-requisite(s): MPN 5106 and 5210
This course builds on the foundation of basic and advanced concepts related to research design and statistics attained in MPN 5210 Research Methods I. Students continue to gain an understanding of and interpret basic and advanced statistical analysis techniques. Students learn to perform these operations on SPSS statistical software.

MPN 5225 Public Health II with Lab (2)
Pre-requisite(s): Medical Nutrition Therapy I II, Public Health I Public Health II expands on foundational concepts introduced in Public Health I, but now framing in a global perspective. Students are exposed to current and emerging issues in global and public health nutrition. They learn to recognize how health indicators, health disparities, and resource availability/accessibility influence the nutrition status of regions worldwide, with an emphasis on lower-middle income countries.

MPN 5231 Research Project II with Lab (2)
Pre-requisite(s): MPN 5106, 5210, 5220, 5121, 5316
This course continues the research process following Scientific Writing (MPN 5106) and Research Project I (MPN 5121). In small teams, students conduct a mock research study. The course is founded on experiential learning experiences that include developing a research plan and data collection code book, collecting data using a variety of nutrition-relevant tools, and cleaning and analyzing the dataset.

MPN 5235 Organizational Stewardship with Lab (2)
Pre-requisite(s): MPN 5522
Organizational stewardship creates accountable and committed workplaces by imposing personal responsibility, accountability, and ownership on employees and leaders. This course encourages putting organizational goals over self-interest and ensuring that the organization thrives for subsequent leaders and generations. The course explores fiscal and human resources and governance for department success within a resource-constrained organization.
MPN 5240 Experiential Practice I Lab (2)  
Pre-requisite(s): Comprehensive Oral and Written Examination for MPN  
This course provides experiential learning to enrich competencies with a  
staff experience. There are several core leadership and management  
competencies that all MPN 5240 Experiential Practice I Lab students  
will complete during this course. However, students have the option to  
choose additional competencies that will be mutually agreed upon by  
faculty, preceptors, and students.

MPN 5241 Research Project III with Lab (2)  
Pre-requisite(s): MPN 5106, MPN 5220, MPN 5121, and  
MPN 5231  
This course continues the research process following Scientific Writing  
(MPN 5106) and Research Project I (MPN 5107) while reflecting on  
the research experiences gained during MPN 5231. Students create a  
research plan to investigate an assigned research topic, and understand  
the research protocol’s importance in completing sound scientific  
research while protecting human subjects/study participants.

MPN 5245 Military Nutrition Operations with Lab (2)  
Pre-requisite(s): Approximately one month prior to attending Joint  
Field Nutrition Operations Course, all students have will complete the  
Emergency Preparedness Response Course (EPRC) – Basic Awareness  
Course through JKO and Chemical Biological Radiological Nuclear Energy  
(CBRNE) prerequisite online courses  
The course incorporates current concepts and doctrine along with  
experiential practice in the management of a nutrition care section within  
an Army deployable hospital system. This section is responsible for  
providing hospital nutrition care services including meal preparation  
and service for patients and staff, providing patient education, and advising  
the commander on health and nutrition related issues.

MPN 5251 Research Project IV with Lab (2)  
Pre-requisite(s): MPN 5106, 5121, 5210, 5220, 5231, and 5241  
Students conduct their research studies, complete a variety of research  
activities, and demonstrate ability to integrate evidence-informed  
research principles, critical thinking, and communication skills.

MPN 5303 Research Methods II (3)  
Pre-requisite(s): MPN 5401  
This course includes a combination of lecture and practical exercises  
that emphasize the steps and principles of research. Students will  
participate in all steps of research, working individually as well as in  
small groups. Steps include the protocol approval process, volunteer  
recruitment, data collection, data analysis/interpretation, and preparation  
of written and oral presentations of research findings.

MPN 5305 Protocol Development (3)  
Co-requisite(s): MPN 5401  
Students will explore topics for protocol development. Hypotheses will be  
generated and supported by literature reviews.

MPN 5307 Nutrition in Stability Operations (3)  
This course is designed to provide students with in-depth knowledge  
of nutrition issues confronted in complex emergencies and within  
the developing world. Emphasis will be placed on macronutrient and  
micronutrient malnutrition, assessment of nutritional needs, nutritional  
surveillance and food distribution programs.

MPN 5309 Advanced Energy Metabolism (3)  
Co-requisite(s):  
Introduction to various energy disorders, energy metabolism, and  
bioenergetics; requires application of evidence-based practice in a  
variety of energy-related disease states and disorders; requires critical  
assessment of the validity and logic behind weight loss claims and  
advertisements; explores best practices for adult and pediatric weight  
management; and includes aspects of gene expression, nutrigenomics,  
and nutrigenetics.

MPN 5311 Leadership and Management Development (3)  
This course is designed to explore a broad range of leadership topics and  
issues, and to help students develop their executive skills for future roles  
as managers in clinic and food service operations. Students will have  
the opportunity to examine their own leadership qualities and develop  
ways to improve them. Readings will cover both theoretical bases  
for leadership and practical strategies for effective leadership in the  
diagnosis, prediction, and analysis of human behavior in organizations.

MPN 5314 Nutrition Care Process with Lab (3)  
Co-requisite(s): MPN 5407  
This nutrition course prepares future registered dietitians nutritionists  
by providing foundational knowledge about the Nutrition Care Process  
(NCP).

MPN 5315 Public Health I with Lab (3)  
Co-requisite(s): MPN 5217  
Pre-requisite(s): MPN 5407 and MPN 5314  
Course uses lecture, discussion, online resources, and practical exercises  
to introduce and explore measures to promote, improve, or conserve the  
community. Students take an in-depth and practical approach  
to food policy, behavioral design, and food availability. Topics include  
programs, initiatives, regulations and policies, and occupational  
specialties unique to the military, both in garrison and in deployed  
settings.

MPN 5336 Performance Nutrition with Lab (3)  
Pre-requisite(s): MPN 5309, MPN 5314, MPN 5231, and MPN 5216  
Exercise Physiology  
Course uses lecture, discussion, and practical experiences to develop an  
in-depth, applied knowledge of factors affecting physical and cognitive  
human performance. Proactive, active, and reactive components of a  
comprehensive performance nutrition concept are presented.

MPN 5337 Advanced Medical Nutrition Therapy II with Lab (3)  
Pre-requisite(s): MPN 5407, 5314, 5217, and 5527  
This clinical nutrition course provides advanced knowledge of nutrition  
support therapy and evidence-based practice for various critical  
care populations. Anatomy & physiology, pharmacology (prescribed  
medications, OTC considerations, and drug nutrient interactions),  
MNT recommendations, comorbidities, and lifecycle consideration are  
reviewed for advanced disease states.

MPN 5346 Human Performance Optimization with Lab (3)  
Pre-requisite(s): MPN 5336  
The Human Performance Optimization (HPO) course educates an  
interprofessional care team of military allied health students  
(Occupational Therapist [65A], Physical Therapist [65B], and Registered  
Dietitian [65C]) who collaboratively develop and deliver holistic individual  
and unit services in a resource-constrained military environment outside  
of standard clinical care environments.
This course is the final step in the research process. Students finish data analysis, develop results tables/figures, complete their written manuscripts, and defend their studies to their research committees. This course is founded on experiential learning experiences that include data analysis, creation of tables and figures to display relevant findings, and properly interpreting the results through written and oral communication.

MPN 5401 Research Methods I (4)
This course is designed to introduce students to the basic and advanced concepts, techniques, and technologies used in the scientific inquiry of applied clinical research.

MPN 5404 Advanced Nutrition and Critical Care (4)
This course provides an in-depth review of the study and application of nutrition principles related to the critically ill patient with an emphasis on trauma and burn. Course includes lab.

MPN 5407 Medical Nutrition Therapy I with Lab (4)
Co-requisite(s): MPN 5314
This clinical nutrition course prepares future registered dietitian nutritionists by providing foundational knowledge of nutrition requirements and considerations for various populations.

MPN 5409 Advanced Anatomy & Physiology (4)
In this course, students will explore anatomy, physiology and pathophysiology of the gastrointestinal, urinary, respiratory, cardiovascular, endocrine and reproductive systems.

MPN 5410 Force Health Protection (4)
Course explores measures to promote, improve, or conserve Soldiers’ mental and physical well-being. Students will take a more in-depth and practical approach to evaluating operational Army unit capabilities and physical demands as well as interdisciplinary teamwork to achieve optimal health outcomes.

MPN 5411 Effective Scientific Writing (4)
This course introduces the evidence-based medicine analysis process and provides a structured format for interpretation and application of current research. The course develops and/or builds on skills to find relevant peer-reviewed journal articles for a specific topic; critically evaluate peer reviewed journal articles and determine their appropriateness to the topic being addressed; and write a clear, concise, and coherent literature review.

MPN 5450 Experiential Practice II Lab (4)
Pre-requisite(s): MPN 5240
This course provides experiential learning to enrich competencies with a staff experience. There are several core leadership and management competencies that all students will complete during this course. However, students have the option to choose additional competencies that will be mutually agreed upon by faculty, preceptors, and students.

MPN 5503 Nutrition and Performance (5)
This course provides students with an in-depth knowledge of how nutrition variables can impact both physical and cognitive performance. Topics include exercise physiology, exercise screening, fuel mobilization (carbohydrate, fat, and protein), micronutrients (vitamins and minerals), hydration, body composition, supplements, and energy balance. Course includes lab.