**MS - MORTUARY SCIENCE**

**MS 3100 Thanatochemistry Cr. 2**
Discussion, problem solving, and application of general inorganic, organic and biochemistry to postmortem changes, biologic preservation, and embalming chemistry. Course includes a problem-based laboratory and case studies with correlations to embalming chemistry. Offered Fall.

**Prerequisite:** CHM 1000 with a minimum grade of D-

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**MS 3300 Religions, Values, and Death Cr. 3**
Various religious, secular, and philosophical views regarding the value of life, the meaning of death, and life after death. Offered Winter.

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science, BS in Pathologist Assistant or PBC in Forensic Investigation programs; enrollment limited to students in the Pharmacy and Health Sciences.

**MS 3400 Funeral Service Law and Ethics I Cr. 3**

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**MS 3410 Funeral Service Law and Ethics II Cr. 3**
Legal principles affecting funeral service including legal status of a deceased, rights and responsibilities affecting disposition, licensing laws, regulatory compliance, preneed and probate law. Funeral service torts and discussion and problems on due diligence, best practices, and ethical responsibilities of funeral practitioners. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**MS 3420 Funeral Arranging Cr. 2**
Funeral arrangement skills including interpersonal communication skills in the arrangement conference, conflict resolution, personalization, and completion of forms. Simulated funeral arrangements and FTC compliance. Offered Fall.

**MS 3500 Embalming I Cr. 3**
Theories, practices, and techniques of biologic preservation and disinfection of human remains; case analyses; methods of application of embalming chemicals; use of instruments and equipment; special case embalming. Laboratory teaching of all practical aspects of embalming. Material Fee as indicated in the Schedule of Classes. Offered Fall.

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $200

**MS 3510 Embalming II Cr. 3**
Dynamics of decomposition; influence of disease and its treatment on the embalming process; public health considerations; anatomical embalming; disaster response; evaluation of embalming techniques. Material Fee as indicated in the Schedule of Classes. Offered Winter.

**Prerequisite:** MS 3500 with a minimum grade of D-

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $200

**MS 3600 Restorative Art and Modeling I Cr. 2**
Theories, methods, and techniques used in the restoration of superficial tissues and features. Color theory, cosmetology, facial proportions, skin tones correlated with reconstruction. Clay and wax modeling. Case studies in restorative art. Offered Fall.

**Prerequisite:** MS 3500 with a minimum grade of D-

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $50

**MS 3610 Restorative Art and Modeling II Cr. 2**
Continuation of MS 3600. Material Fee as indicated in the Schedule of Classes. Offered Winter.

**Prerequisite:** MS 3600 with a minimum grade of D-

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $35

**MS 3620 Presentation and Cosmetics Cr. 2**
Advanced restorative art techniques and strategies for professional mortuary science students. Offered Spring/Summer.

**Prerequisite:** MS 3610

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $200

**MS 3760 Funeral Service History and Trends Cr. 2**
Basic human need to memorialize the dead, examined throughout history. Funeralization as a process affected by social and religious change. The funeral service professional in a socio-temporal context. Possible future practices based on understanding of historical records and current trends. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $200

**MS 3760 Funeral Service History and Trends Cr. 2**
Basic human need to memorialize the dead, examined throughout history. Funeralization as a process affected by social and religious change. The funeral service professional in a socio-temporal context. Possible future practices based on understanding of historical records and current trends. Offered Spring/Summer.

**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

**Course Material Fees:** $80
MS 3810 Funeral Service Marketing and Merchandising Cr. 3
Continuation of MS 3800. Marketing, merchandising, public relations, pre-need planning, personnel management, job-seeking skills, licensing requirements; planning, building and establishing of funeral home. Government regulations. Offered Winter.
Prerequisite: MS 3800 with a minimum grade of D-
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $80

MS 3830 Psychology of Death and Dying Cr. 3
Various social and cultural perspectives; psychosocial changes related to death, dying, and disposition; special cases: sudden, violent or unexpected death. Offered Fall.
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 3840 Psychosocial Aspects of Grief Cr. 3
Psychology of funeral service practices; social role of funeral service practitioner in the dynamics of grief; psychosocial interpretations of changing attitudes toward death; normal and abnormal grief responses; sociology of funeral service. Offered Spring/Summer.
Prerequisite: MS 3830 with a minimum grade of D-
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 3970 Practicum I Cr. 1
Student placement in licensed funeral service facility to acquire practical experience in basic funeral service skills. Offered Winter.
Prerequisites: (May be taken concurrently: [MS 3510 with a minimum grade of C]) AND (MS 3800 with a minimum grade of C)
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 3980 Practicum II Cr. 2
Continuation of the Practicum I course. Students are placed in a licensed funeral service facility to acquire practical experience in advanced funeral service skills. Offered Spring/Summer.
Prerequisite: MS 3970
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4010 Basic Forensic Analysis Cr. 3
The forensic lab, its organization, accreditation, and regulation; quality control, safety, and documentation; discussion and demonstration of methods for collection and processing of specimens. Specimen extraction techniques and analyte-specific analytical instrumentation used in forensic laboratory. Basis for the forensic logic tree. Offered Fall.
Restriction(s): Enrollment limited to students in the PBC in Forensic Investigation program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4011 Interview and Interrogation Techniques Cr. 3
Appropriate and effective techniques for conducting interviews in forensic investigations. Effective and efficient techniques for interviewing witnesses and interrogating defendants. Legal issues surrounding investigations; strategies in gathering information and obtaining confessions. Offered Fall.
Restriction(s): Enrollment limited to students in the PBC in Forensic Investigation program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4050 Anatomy for Mortuary Science Cr. 2
Detailed systemic study of human anatomy. Laboratory work consists of demonstrations and selected dissections; emphasis on vascular anatomy and adjacent structural relationships; anatomic guides. Material Fee As Indicated In The Schedule of Classes. Offered Fall.
Prerequisite: BIO 2870 with a minimum grade of D-
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4080 Introduction to Forensic Anatomic Pathology Cr. 3
Role of medical examiner, early signs of death, medical investigation of cause of death, methods for identification of remains, medicolegal aspects of forensic science, toxicology specimen techniques, legal issues in anatomic/forensic pathology. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant or PBC in Forensic Investigation programs; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4090 Histochemistry Cr. 3
Course Material Fees: $175

MS 4100 Medical Photography Cr. 3
Theory and behavior of light and lenses; principles of exposure, color, and filters; macro- and microphotography. Offered Winter.
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4150 Medical Photography Cr. 3
Study of techniques involved in the preparation of tissues prior to microscopic examination. Offered Winter.
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4200 Microbiology for Mortuary Science Cr. 2
Course Material Fees: $30

MS 4250 Microbiology for Mortuary Science Cr. 2
Discussion and application of pathogenic microbial agents; host-parasite relationships; disinfection-decontamination; immunology; epidemiology of infectious disease, public health issues; and problem-based case studies. Lecture and problem-based laboratory/case studies. Offered Winter.
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.
MS 4300 (WI) Pathology for Mortuary Science Cr. 2
Causes of disease; basic epidemiology; tissue reactions to injury, gross and microscopic; neoplasia; select systemic and organ pathologies; comparative roles of various specialties in pathology. Satisfies the Writing Intensive requirement for Mortuary Science students. Offered Spring/Summer.
**Prerequisite:** MS 4050 with a minimum grade of D- and MS 4250 with a minimum grade of D-
**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4420 Laboratory Management Cr. 3
Interpersonal and technical management techniques for the laboratory setting. Quality management techniques, policies and protocols for pathologists' assistants. Offered Winter.
**Restriction(s):** Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4450 Funeral Service Management and Accounting Cr. 3
Financial aspects of starting and operating a funeral business; basic accounting principles; dealings with fellow professionals and government agencies. Offered Spring/Summer.
**Prerequisite:** ACC 3010 with a minimum grade of D-
**Restriction(s):** Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4500 Clinical Autopsy Pathology Cr. 6
Autopsy procedures, including data retention, dissection techniques, selection of tissue for microscopic examination, and methods of body restoration prior to release. Course addresses clinical Gross Anatomy Techniques and Gross Pediatric Pathology techniques. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4550 Clinical Histopathologic Technique Cr. 3
Organization of a histology laboratory, proper handling of specimens for processing, available procedures and techniques. Offered Every Term.
**Restriction(s):** Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4600 Clinical Forensic Pathology Cr. 3-5
Assisting pathologist in determining cause of death; basic methods for identifying remains with regard to age, sex, and race; techniques of photographic record keeping. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant or PBC in Forensic Investigation programs; enrollment limited to students in the Pharmacy and Health Sciences.
**Course Material Fees:** $30

MS 4650 Clinical Surgical Pathology Cr. 5
Principles, theories, and clinical practices related to gross surgical dissections. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4700 Clinical Pathology Cr. 3
Fundamental processes in benign and malignant hematopathology and lymphoid tissue; interpretation of clinical chemistry values, tumor markers, laboratory values, and the evolution of clinical and pathology case studies. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4800 Clinical Photography Cr. 2
Techniques required to photographically record gross and microscopic specimens as presented from surgery. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 4850 Clinical Academic Pathology Cr. 6
Principles and theories of surgical diagnostic pathology and mechanisms of disease. Offered Every Term.
**Restriction(s):** Enrollment limited to students with a class of Senior; enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5010 Advanced Forensic Analysis Cr. 2
New developments in the forensic laboratory; current areas of research and potential applications. Forensic logic trees and forensic case applications; novel techniques in crime scene investigation and analysis. Offered Winter.
**Prerequisite:** MS 4010 with a minimum grade of D-
**Restriction(s):** Enrollment limited to students with a major in Forensic Investigation; enrollment limited to students in the PBC in Forensic Investigation program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5011 Forensic Investigation of Firearms, Ballistics, and Explosives Cr. 4
Introduction to firearm operation, identification, ballistics and explosive materials and devices from the perspective of forensic evaluation. Principles of forensic evidence collection and analysis discussed in lab. Offered in collaboration with Bioengineering Center Ballistic Research Laboratory. Offered Winter.
**Prerequisite:** MS 4010 with a minimum grade of D- or MS 6010 with a minimum grade of D-
**Restriction(s):** Enrollment limited to students with a major in Forensic Investigation; enrollment is limited to Undergraduate level students; enrollment limited to students in the Pharmacy and Health Sciences.
**Course Material Fees:** $40

MS 5050 Clinical Terminology and Methodology Cr. 3
Clinical terminology and surgical methods for analysis and treatment of human disease. Offered Spring/Summer.
**Restriction(s):** Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.
MS 5061 (WI) Vertebrate and Human Embryology: Pathologists’ Assistant Cr. 4
Comparative fundamental processes in vertebrate/human systems, with human embryological correlations to clinical settings: case study analysis specific to the pathologists’ assistant; clinical evaluation of pediatric pathology. Offered Winter.
Prerequisite: BIO 1500 with a minimum grade of C- and BIO 1510 with a minimum grade of C-
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.
Course Material Fees: $70

MS 5200 Medical Microbiology for the Technical Professional Cr. 3
Detailed study of commensal organisms of the human and mechanisms of resistance. Identification, by anatomical location, of organisms likely to cause infection; methods required for collection and transportation of microbiological specimens; case study analysis and presentation. Offered Fall.
Prerequisite: BIO 2200 with a minimum grade of C-
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5250 Applied General Pathology Cr. 4
Principles of general pathology with special emphasis on clinical correlation, including pediatric pathology. Offered Spring/Summer.
Prerequisite: MS 4050 with a minimum grade of C- and BIO 4630 with a minimum grade of C- or BIO 5630 with a minimum grade of C-
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5350 Grief Dynamics and Aftercare Cr. 2
Identifying components of bereavement aftercare. Recognizing bereaved individuals needs at the funeral and beyond. Developing personal and professional capacity to assist grieving individuals and families through application of bereavement care skills. Offered Winter.
Prerequisites: (IMS 3830 with a minimum grade of D+)
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5420 Future Trends in Pathology Practice Cr. 2
Discussion of changing parameters of clinical and anatomic pathology practice. Trends associated with healthcare, patient care, technology, legal issues; educational methodology, licensure and accreditation issues; medical ethics and quality management in anatomic pathology. Students present research findings via PowerPoint delivery systems. Offered Winter.
Restriction(s): Enrollment limited to students in the BS in Pathologist Assistant program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5550 Special Topics in Mortuary Science Cr. 1
Lectures and discussions; invited speakers on current topics in the profession. Topics to be announced in Schedule of Classes. Offered Yearly.
Restriction(s): Enrollment limited to students in the BS in Mortuary Science or PBC in Forensic Investigation programs; enrollment limited to students in the Pharmacy and Health Sciences.
Repeatable for 3 Credits

MS 5990 Directed Study Cr. 3
Library and/or laboratory study of current or pending professional development; study of an existing problem, study or development of new procedures or techniques. Assigned project under the guidance of departmental/program faculty member. Offered Every Term.
Restriction(s): Enrollment limited to students in the BS in Mortuary Science or PBC in Forensic Investigation programs; enrollment limited to students in the Pharmacy and Health Sciences.

MS 5996 Professional Review Cr. 2
A comprehensive review and assessment in preparation for the National Board Examination consisting of assigned questions and in-class discussion and assessment, culminating in the Practice National Board Examination. Students receive a grade of Y at the conclusion of the course and have 60 days to take the National Board Examination after completion of the Mortuary Science professional coursework. Offered Spring/Summer.
Restriction(s): Enrollment limited to students in the BS in Mortuary Science program; enrollment limited to students in the Pharmacy and Health Sciences.

MS 6010 Forensic Analysis for the Toxicologist Cr. 3
Introduction to the field for the analytical toxicologist. Design, organization, quality control, quality assurance, safety, documentation in forensic laboratory; specimen collection; handling of biological and other evidentiary specimens. Offered Fall.