

CLINICAL PERFUSION (CLPR)

CLPR 501 ELECTRONICS & BIOMED MONITORING 3 Credit Hours

An introductory course to familiarize students with the fundamentals of electronics; to use and test monitoring equipment; to understand biomedical electronics as it pertains to perfusion related electrical and monitoring equipment. Introduction to catheterization procedures, techniques and hemodynamic assessment as it pertains to cardiac function and interpretation will also be covered in this course.

Prerequisite: Enrollment in the Clinical Perfusion Program.

Typically Offered: SUMMER

CLPR 502 INTRO PERFUSION TECHNOLOGY 2 Credit Hours

Introduction to Perfusion Technology is an introductory level class for the first year perfusion students. Students are introduced to the role of the cardiovascular Perfusionist as a professional health care provider. The course covers theory of extracorporeal science with a major focus on the principles of extracorporeal relationships within open systems and patient management techniques during cardiopulmonary bypass. The student is introduced to assessment skills, circulation management techniques, and the perfusion medical record. The main focus of the course is in the introduction of perfusion technology.

Prerequisite: Enrollment in Clinical Perfusion Program.

Corequisite: CLPR 505 CLPR 506.

Typically Offered: FALL

CLPR 505 PERFUSION CONCEPTS I 4 Credit Hours

Perfusion Concepts I provides the entry-level student with several fundamental concepts of extracorporeal circulation. Instruction includes substantial course work on blood propulsion, filtration, gas exchange in natural and artificial devices, principles of acid-base balance, thermal control and dynamics, and hemodilution. Additional topics include blood conservation methods, ultrafiltration, and special bypass situations. Monitoring of the cardiac patient during extracorporeal circulation will be discussed with specific emphasis on blood gas analysis, temperature, hemodynamics, fluid and electrolyte balance. Emphasis is placed on the fundamental concepts of cardiac surgical procedures, through observation and instruction from faculty of a variety of services who work collaboratively with perfusion.

Prerequisite: Enrollment in the Clinical Perfusion Program.

Corequisite: CLPR 502, CLPR 506.

Typically Offered: FALL

CLPR 506 APPLIED CLINICAL PRACTICES 2 Credit Hours

This course covers the fundamentals of daily responsibilities of the cardiovascular perfusionist, including the logistics of departmental organization, operating room and hospital organizational structure, and material management services. In addition, students will apply the concepts learned in CLPR and 502 and 505 in the clinical environment. Students will receive instruction on surgical techniques for various cardiac, orthopedic, vascular and transplantation procedures. Various invasive and non-invasive monitoring practices will be reviewed. Monitoring of the surgical patient during extracorporeal circulation will be discussed with specific emphasis on electrophysiology and hemodynamics. Emphasis is placed on the fundamental concepts of cardiac surgical procedures, through observation and instruction from faculty of a variety of services supported by cardiovascular perfusion.

Prerequisite: Enrollment in the Clinical Perfusion Program.

Corequisite: CLPR 502, CLPR 505.

Typically Offered: FALL

CLPR 512 PERFUSION TECHNIQUES 2 Credit Hours

Perfusion Techniques is an intermediate level class for first year perfusion students. Students have demonstrated beginning level competencies in the basic principles of extracorporeal circulation, and will now study how these principles can be applied to extended patient care situations. The class covers advanced assessment skills, extracorporeal hardware and circuitry, advanced management techniques in extracorporeal circulation, perfusion emergencies and disasters, perfusion protocols, and the detailed perfusion care plan. The main focus of this course is in the practical application of perfusion technology.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506.

Typically Offered: SPRING

CLPR 515 PERFUSION CONCEPTS II 4 Credit Hours

Perfusion Concepts II is a continuation of Perfusion Concepts I where basic principles and theories of extracorporeal circulation were examined. The Clinical Perfusionist must have a solid understanding of cardiac anatomy, physiology, pathophysiology and diagnosis to effectively evaluate the patient's condition and develop strategies in extracorporeal technology to meet specific needs of the patient. In this second semester, students will be introduced to advanced theories and practices in cardiovascular and related medicine, both through didactic and clinical instruction. Experts representing diverse specialties of patient care will serve as invited lecturers and will provide a basic understanding of their services in facilitating patient care management. Perfusion Concepts II is offered to second semester Clinical Perfusion Education Students. Emphasis will be placed on cardiac physiology and biochemistry of cardiac function, pathophysiology of cardiopulmonary bypass, techniques of pediatric perfusion, cardiology diagnostic techniques, anesthetic treatment of the cardiac patient, and cardiac and thoracic surgery.

Prerequisite: Enrollment in Clinical Perfusion Program.

Corequisite: CLPR 512, CLPR 520, CLPR 703, CLPR 705.

Typically Offered: SPRING

CLPR 520 THESIS DEVELOPMENT 1 Credit Hour

Thesis Development is part of the series of research courses offered through the Division of Clinical Perfusion Education on research methodology. This interactive multi-disciplinary course teaches the student the importance of performing well-designed research, in an effort to improve our understanding of extracorporeal circulation and better patient care. Through class participation, the students will have the opportunity to interact with individuals from multiple allied health specializations, in conducting clinical and laboratory research projects. Emphasis is placed on the scientific method in the design, conduct, and completion of a research project.

Prerequisite: Enrollment in the Clinical Perfusion Program or Clinical Perfusion DAO, CLPR 502, CLPR, 505, CLPR 506, CAHP 518.

Typically Offered: FALL/SP/SU

CLPR 701 IN VITRO/IN VIVO LAB PROCEDURES 2 Credit Hours

IN VITRO/IN VIVO Lab Procedures is an introduction to perfusion techniques and principles in an applied setting. Students are exposed to 'hands on' demonstrations and applications of perfusion devices and products currently used for cardiopulmonary bypass and cardiovascular surgery in addition to lecture series on the same. Exercises involve both 'wet' (in vitro) and animal laboratories (in vivo). Perfusion Concepts III is designed to study the various extracorporeal devices and techniques of their use, in both in vitro and in vivo laboratory environments. The purpose of these experiences is to develop an understanding, through applied methodology, of the operational characteristics of extracorporeal devices. The student will be given the opportunity to initiate and terminate CPB and to make critical decisions during the perfusion period. Detailed quizzing will take place during the lab to test the student's ability to think and perform under stressful and demanding conditions.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515.

Typically Offered: SUMMER

CLPR 702 PERFUSION SEMINAR I 1 Credit Hour

Perfusion Seminar is a forum where current concepts and techniques of applied perfusion technology are to be debated. Class participation will be fostered via informal discussion format with both first and second year perfusion students, degree completion students, clinical faculty members and guests. Case presentations will be presented by faculty members, students and guests from around the country for review and formulation of case plans for patient management. Perfusion Seminar will focus on preparing the student for superior clinical practice through exposure to situations and dialogues that are routinely encountered in clinical environments but rarely discussed in a scholarly manner. Pathophysiological alterations resulting from extracorporeal circulation may be reviewed and methods of reducing these effects may be presented in discussion format. Topics will be explored tailored areas specific to student progress needs.

Prerequisite: Enrollment in the Clinical Perfusion Program.

Typically Offered: FALL

CLPR 703 PERFUSION SEMINAR II 1 Credit Hour

Perfusion Seminar is a forum where current concepts and techniques of applied perfusion technology are to be debated. Class participation will be fostered via informal discussion format with both first and second year perfusion students, degree completion students, clinical faculty members and guests. Case presentations will be presented by faculty members, students and guests from around the country for review and formulation of case plans for patient management. Perfusion Seminar will focus on preparing the student for superior clinical practice through exposure to situations and dialogues that are routinely encountered in clinical environments but rarely discussed in a scholarly manner. Pathophysiological alterations resulting from extracorporeal circulation may be reviewed and methods of reducing these effects may be presented in discussion format. Topics will be explored tailored areas specific to student progress needs.

Prerequisite: Enrollment in the Clinical Perfusion Program.

Typically Offered: SPRING

CLPR 705 PEDIATRIC PERFUSION 3 Credit Hours

Pediatric Perfusion is a comprehensive review of the extracorporeal circulation techniques utilized in treating patients with congenital heart disease. Students will learn the embryological development of normal and abnormal cardiac structures, and identify congenital cardiac lesions that are amenable to surgical repair. In addition, a major emphasis of this course will be the interpretation of cardiac diagnostic information. Surgical interventions will be reviewed and appropriate extracorporeal circuits and devices will be discussed.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506.

Typically Offered: SPRING

CLPR 708 JOURNAL REVIEW 1 Credit Hour

This course is a complementary addition to the perfusion science courses to date. Students become interactive by exploring current topics relative to the scientific literature and relate those topics to laboratory discovery. Exercises involve complementary topics to existing UNMC CPE concurrent course work. The purpose of this course is to develop the necessary skills to inquire, search, and apply current literature to given perfusion clinical concepts. The student will be assigned topics to explore and apply to their observations and experiences. The student will gain practice in exploring the basis for scientific foundation in process and theory.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515, CLPR 520.

Typically Offered: SUMMER

CLPR 710 THESIS DEVELOPMENT II 1 Credit Hour

Thesis Development is the continuation of the series of research courses offered through the Division of Clinical Perfusion Education on research methodology. This interactive multi-disciplinary course teaches the student the importance of performing prospective research, in an effort to improve our understanding of extracorporeal circulation and better patient care. Thesis Development is the second phase in the development of a prospective research trial formulated by the student under the guidance of staff and faculty. Through class participation, the students will have the opportunity to interact with individuals from multiple allied health specializations, in conducting clinical and laboratory research projects. Emphasis is placed on the scientific method in the design, conduct, and completion of a research project.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 520.

Typically Offered: SUMMER

CLPR 711 THESIS DEVELOPMENT III 1 Credit Hour

Thesis Development III is the continuation of the series of research courses offered through the Division of Clinical Perfusion Education on scientific methodology. This interactive multi-disciplinary course teaches the student the importance of performing prospective research, in an effort to improve our understanding of extracorporeal circulation and better patient care. Thesis Development III is the third phase in the development of a prospective research trial formulated by the student under the guidance of staff and faculty. Through class participation, the students will have the opportunity to interact with individuals from multiple allied health specializations, in conducting clinical and laboratory research projects. Emphasis is placed on the scientific method in the design, conduct, and completion of a research project.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 520, CLPR 710.

Typically Offered: FALL

CLPR 712 THESIS DEVELOPMENT IV 1 Credit Hour

Thesis Development IV is the completion of the series of research courses offered through the Division of Clinical Perfusion Education traditional program on scientific methodology. This interactive multi-disciplinary course reinforces with the student the importance of design, management and production of an approved clinical project or scientific research with the goal of improvement of our understanding of extracorporeal circulation and better patient care. Thesis Development IV is the final phase in the development of a project formulated by the student under the guidance of staff and faculty. Through class participation and presentations, the students will be encouraged to interact with individuals from multiple allied health specialties in the conduct of clinical and laboratory projects. Emphasis placed on the scientific method in design, conduct, and completion of their approved project is expected.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 520, CLPR 710, CLPR 711.

Typically Offered: SPRING

CLPR 715 CLINICAL ROTATION PERFUSION I 5 Credit Hours

Previously learned principles and techniques of perfusion are applied to clinical setting at the Nebraska Medical Center and Omaha Methodist Hospital. Students will participate in preceptorships in assorted medical services and may function as primary Perfusionists on a variety of clinical cases. Students are on call to report for emergency procedures as they arise. During these two clinical rotations (CLPR 715 and 718), the goal is to perform 10 clinical perfusion cases; in 5 of these the student will be the primary Student Perfusionist. Students will function as Perfusionists on a variety of clinical cases including coronary artery bypass grafting, valve replacement or repair, aneurysm repair, heart and liver transplantations, general thoracic procedures, and ventricular assist procedures. Students will participate in on-call responsibilities and report, with the clinical faculty member, for emergency procedures. Clinical Rotation Perfusion I will expose students to the various medical services, which are closely associated with the practice of extracorporeal circulation. Students will complete preceptorships with medical practitioners from each of the following services including thoracic surgery, cardiology, and anesthesiology.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515.

Typically Offered: SUMMER

CLPR 718 CLINICAL ROTATION PERFUSION II 5 Credit Hours

Previously learned principles and techniques of ancillary technology are further explored in a clinical setting at the Nebraska Medical Center or Omaha Methodist Hospital. Students will participate in preceptorships in assorted medical services and will function in variety of clinical cases. Students will participate in on-call responsibilities and report, with the clinical faculty member, for emergency procedures. Clinical Rotation Perfusion II will expose students to the various medical services, which are associated with the practice of extracorporeal circulation. Students will complete preceptorships with medical practitioners from each of the following services including thoracic surgery, cardiology, and anesthesiology. Additionally, students MAY also rotate through other medical institutions in Omaha where such techniques will be reviewed and practiced.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515.

Corequisite: 715.

Typically Offered: SUMMER

CLPR 720 CLINICAL ROTATION PEDIATRIC PERFUSION I 5 Credit Hours

Clinical Rotation Pediatric Perfusion I is conducted at one of the affiliate hospitals with appropriately educated and experienced clinical faculty (preceptors). The hospitals where a student may be assigned are located in one of the following cities: Birmingham AL, Omaha NE, Peoria IL, Little Rock AR, Madison WI, or Kansas City MO, or Philadelphia PA. In addition, the Program maintains an elective agreement with Great Ormond Street Hospital for Sick Children in London, England. CLPR 720 will expose the student to principles of extracorporeal circulation for the patient with congenital heart disease. Principles and techniques learned in the first three semesters will be applied in the clinical setting. Students will be required to perform no less than 15 extracorporeal circulation procedures on neonatal or pediatric patients undergoing cardiac surgery. Clinical rotation on pediatric perfusion accents the didactic education course CLPR 705, Pediatric Perfusion. To this end, the clinical rotation will provide the student with the practical application of the principles of perfusion learned from previous courses. Students will continually apply their understanding of perfusion principles and congenital heart disease along with surgical techniques to provide safe, competent cardiopulmonary bypass. In addition, this course provides individual instruction to the student on "one on one" basis of advanced clinical perfusion techniques. A senior instructor provides instruction with considerable clinical experience. This course will prepare the student in the knowledge and theory of advanced pediatric perfusion techniques.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515, CLPR 701, CLPR 708, CLPR 710, CLPR 715, CLPR 718.

Typically Offered: FALL

CLPR 722 PERFUSION SEMINAR III 1 Credit Hour

Perfusion Seminar is a forum where current concepts and techniques of applied perfusion technology are to be debated. Class participation will be fostered via informal discussion format with both first and second year perfusion students, degree completion students, clinical faculty members and guests. Case presentations will be presented by faculty members, students and guests from around the country for review and formulation of case plans for patient management. Perfusion Seminar will focus on preparing the student for superior clinical practice through exposure to situations and dialogues that are routinely encountered in clinical environments but rarely discussed in a scholarly manner. Pathophysiological alterations resulting from extracorporeal circulation may be reviewed and methods of reducing these effects may be presented in discussion format. Topics will be explored tailored areas specific to student progress needs.

Prerequisite: Enrollment in the Clinical Perfusion Program or Clinical Perfusion DAO.

Typically Offered: FALL

CLPR 723 PERFUSION SEMINAR IV 1 Credit Hour

Perfusion Seminar is a forum where current concepts and techniques of applied perfusion technology are to be debated. Class participation will be fostered via informal discussion format with both first and second year perfusion students, degree completion students, clinical faculty members and guests. Case presentations will be presented by faculty members, students and guests from around the country for review and formulation of case plans for patient management. Perfusion Seminar will focus on preparing the student for superior clinical practice through exposure to situations and dialogues that are routinely encountered in clinical environments but rarely discussed in a scholarly manner. Pathophysiological alterations resulting from extracorporeal circulation may be reviewed and methods of reducing these effects may be presented in discussion format. Topics will be explored tailored areas specific to student progress needs.

Prerequisite: Enrollment in the Clinical Perfusion Program or Clinical Perfusion DAO.

Typically Offered: SPRING

CLPR 725 CLINICAL ROTATION PEDIATRIC PERFUSION II 5 Credit Hours

Clinical Rotation Pediatric Perfusion II is conducted at one of the affiliate hospitals with appropriately educated and experienced clinical faculty (preceptors). The hospitals where a student may be assigned are located in one of the following cities: Birmingham AL, Omaha NE, Peoria IL, Little Rock AR, Madison WI, or Kansas City, MO. In addition, the Program maintains an elective agreement with Great Ormond Street Hospital for Sick Children in London, England. CLPR 725 will expose the student to principles of extracorporeal circulation for the patient with congenital heart disease. Principles and techniques learned in the first three semesters will be applied in the clinical setting. Students will be required to perform no less than 15 extracorporeal circulation procedures on neonatal or pediatric patients undergoing cardiac surgery. Clinical rotation on pediatric perfusion accents the didactic education course CLPR 705, Pediatric Perfusion. To this end, the clinical rotation will provide the student with the practical application of the principles of perfusion learned from previous courses. Students will continually apply their understanding of perfusion principles and congenital heart disease along with surgical techniques to provide safe, competent cardiopulmonary bypass. In addition, this course provides individual instruction to the student on "one on one" basis of advanced clinical perfusion techniques. A senior instructor provides instruction with considerable clinical experience. This course will prepare the student in the knowledge and theory of advanced pediatric perfusion techniques. Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515, CLPR 701, CLPR 708, CLPR 710, CLPR 715, CLPR 718, CLPR 720, CLPR 730.

Typically Offered: SPRING

CLPR 730 CLINICAL ROTATION PERFUSION III 5 Credit Hours

The final two semesters of perfusion education are the primary clinical rotations during which the students will practice the theories learned regarding cardiopulmonary bypass. Rotations are scheduled for two-month intervals at one of the Program's clinical affiliate hospitals: Mid America Heart Institute (St. Luke's Hospital, Kansas City, MO), Mid-Nebraska Heart Institute (Good Samaritan Hospital, Kearney, NE), St. Frances Hospital / Methodist Hospital, Peoria, IL, the University of Wisconsin Medical Center (Madison, WI), the University of Kansas (Kansas City, Kansas), the University of Toledo (Toledo, OH) and the Nebraska Medical Center (Omaha, NE). Faculty members at each institution will be primarily responsible for the clinical instruction that the students will receive. This course provides individual instruction to the student on "one on one" basis of advanced clinical perfusion techniques. A senior instructor provides instruction with considerable clinical experience. This course will prepare the student in the knowledge and theory of advanced adult perfusion techniques.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515, CLPR 701, CLPR 708, CLPR 710, CLPR 715, CLPR 718.

Typically Offered: FALL

CLPR 735 CLINICAL ROTATION PERFUSION IV 5 Credit Hours

The final two semesters of perfusion education are the primary clinical rotations during which the students will practice the theories learned regarding cardiopulmonary bypass. Rotations are scheduled for two-month intervals at one of the Program's clinical affiliate hospitals: Mid America Heart Institute (St. Luke's Hospital, Kansas City, MO), Mid-Nebraska Heart Institute (Good Samaritan Hospital, Kearney, NE), St. Frances Hospital / Methodist Hospital, Peoria, IL, the University of Wisconsin Medical Center (Madison, WI), the University of Kansas (Kansas City, Kansas), the University of Toledo (Toledo, OH) and the Nebraska Medical Center (Omaha, NE). Faculty members at each institution will be primarily responsible for the clinical instruction that the students will receive. This course provides individual instruction to the student on "one on one" basis of advanced clinical perfusion techniques. A senior instructor provides instruction with considerable clinical experience. This course will prepare the student in the knowledge and theory of advanced adult perfusion techniques.

Prerequisite: Enrollment in the Clinical Perfusion Program, CLPR 502, CLPR 505, CLPR 506, CLPR 512, CLPR 515, CLPR 701, CLPR 708, CLPR 710, CLPR 715, CLPR 718, CLPR 730.

Typically Offered: SPRING

CLPR 765 SPECIAL STUDIES IN ADVANCED CLINICAL PERFUSION I 3 Credit Hours

Special Studies in Advanced Clinical Perfusion I is one in the series of research courses on scientific methodology offered through the Division of Clinical Perfusion Education Degree Advancement Option (DAO). This interactive multidisciplinary course reinforces with the student the importance of design, management and production of an approved clinical project or scientific research with the goal of improvement of our understanding of extracorporeal circulation and better patient care. Special Studies in Advanced Clinical Perfusion I is the initial phase in the development of a project or trial formulated by the student under the guidance of staff and faculty. Through class participation and presentations, the students will be encouraged to interact with individuals from multiple allied health specialties in the conduct of clinical and laboratory projects. Emphasis is placed on the scientific method in the design, conduct, and measurable progress of an approved project by mutually agreed upon deliverables.

Prerequisite: Enrollment in Clinical Perfusion DAO Program, CLPR 520.

Typically Offered: FALL/SP/SU

CLPR 766 SPECIAL STUDIES IN ADVANCED CLINICAL PERFUSION II 3**Credit Hours**

Special Studies in Advanced Clinical Perfusion II is the completion of the series of research courses on scientific methodology offered through the Division of Clinical Perfusion Education Degree Advancement Option (DAO). This interactive multi-disciplinary course reinforces with the student the importance of design, management and production of an approved clinical project or scientific research with the goal of improvement of our understanding of extracorporeal circulation and better patient care. Special Studies in Advanced Clinical Perfusion II is the final phase in the development of a project formulated by the student under the guidance of staff and faculty. Through class participation and presentations, the students will be encouraged to interact with individuals from multiple allied health specialties in the conduct of clinical and laboratory projects. Emphasis is placed on the scientific method in the design, conduct, and completion of an approved project. Prerequisite: Enrollment in Clinical Perfusion DAO Program, CLPR 520, CLPR 765.

Typically Offered: FALL/SP/SU

CLPR 775 SURVEY IN ADVANCED EXTRACORPORAL SCIENCE I 2 Credit Hours

Survey in Advanced Extracorporeal Science I is a distance-delivered course offered to Clinical Perfusion DAO students. Students complete a comprehensive literature review of complex issues within extracorporeal circulation, explore its controversies, and seek solutions to address the issues. Using the information obtained, students develop a standard operating procedure. Additionally, in this process, students engage the perfusion community through public postings to promote scholarly discussion surrounding their identified issue. The course is intended for those students who have experience in extracorporeal science and a practical or developing managerial perspective.

Prerequisite: Enrollment in Clinical Perfusion DAO Program and permission from Clinical Perfusion Program Director.

Typically Offered: FALL/SPR

CLPR 790 INDEPENDENT STUDIES 1-6 Credit Hours

Independent Studies in Clinical Perfusion I is unique course within the Clinical Perfusion Science curriculum offered to CPE students. The students participate in the course as a self-designed curriculum and evaluation process. The course is intended to satisfy outstanding extracorporeal science, clinical, research or management requirements unique to the individual student needs. Independent Studies in Clinical Perfusion I is an independent study course offered under the guidance of staff and faculty. By class participation, presentations, clinical experience, etc. the students satisfy their self defined evaluation process.

Prerequisite: Enrollment in Clinical Perfusion Program and permission of the Program Director.

Typically Offered: FALL/SP/SU

CLPR 795 PERFUSION MED ETHICS 2 Credit Hours

Medical ethics is a course offered through the Division of Clinical Perfusion Education on bioethics and medical law. This interactive multi-disciplinary course teaches the student the importance of medical-ethical situations, in an effort to improve our understanding of better patient care. Through class participation, the students will have the opportunity to interact with individuals and develop a greater understanding of individual choices that make up good patient care. Emphasis is placed on understanding the medical laws which the legal implications for the practitioner.

Prerequisite: Enrollment in Clinical Perfusion Program and permission of the instructor.

Typically Offered: SUMMER