

**University of Nebraska Medical Center
College of Allied Health Professions
Clinical Perfusion Education Program**

Course Title: Clinical Perfusion Preceptorship

Course Number: CLPR 975

Credit Hours: ABCP Self-Directed CEU's Requested
ABCP Category 1 CEU's Requested

Contact Hours: 10 hours Lecture; 4 hours Laboratory (voluntary); 0 hours Clinical

Prerequisites: Clinical Faculty Appointment for the University of Nebraska Medical Center Clinical Perfusion Education Program

Semesters Offered: Fall, Spring Semesters

Instructor(s)/Faculty:
Scott Sanderson, MPS, CCP, LP
UNMC CPE Interim Program Director email:
scott.sanderson@unmc.edu
UNMC Office: 402-559-7227

Open office hours: call or email anytime

Class Days, Times, Location:

IP Audio/Video as scheduled via Canvas
<https://unmc.instructure.com/login/ldap>
Lab activities: Eppley Science Hall, 2nd Floor Sim Suite and online
See Appendix Schedule for specific course dates and times

Course Description:

Clinical Perfusion Preceptorship is an advanced multi-level course developed for the clinical faculty in training perfusion students. Participants develop in their role as trainers of Perfusionists to a primary health care provider. This course covers the current general and specific status of perfusion education, regulatory mandates for perfusion education imposed by national agencies, coverage of competency expectations, and techniques to improve clinical preceptor skills. The participant will have opportunity to discuss the Program Director's suggestions for clinical preceptors as well as review the tools available to the preceptor for "Train the Trainer."

Instruction:

Course activities will consist of generally THREE phases of education: self-directed to start, followed by scheduled

GOTOMEETING discussions with the course instructor, and allowing time for live simulator-based interactions with students in simulator scenarios of specific components of training for the management of cardiopulmonary bypass. All literature used, examinations, or projects will be in electronic format to accommodate a distance-learning design. Participation in synchronous chat or asynchronous discussion utilizing UNMC's BlackBoard with weekly contributions is expected.

IN THE INTEREST OF ADVANCEMENT OF CLINICAL INSTRUCTION, IT IS RECOMMENDED THAT THIS COURSE BE REPEATED EVERY THREE TO FIVE YEARS

Course Goals:

Upon successful completion of this course, the student should be able to

1. familiarize the clinical instructor with the current state of perfusion education
2. provide the clinical instructor with publications relating to training perfusion students
3. familiarize the clinical instructor with agencies influencing the educational process
4. specifically identify those processes imposed upon the educational unit
5. familiarize the clinical instructor with the UNMC CPE curriculum in general and the rotation expectations in particular.
6. introduce the competency expectations the CPE program has upon it's students before release to clinical rotations
7. clarify for the clinical instructor the clinical expectations of the program upon the student
8. provide didactic content for the clinical instructor to improve teaching technique
9. provide video-recorded simulation environment for developing feedback techniques to perfusion students.
10. provide specific suggestions from the CPE Program Director as guidelines for student instruction.

SUGGESTED Textbook/Materials:

Access to internet-based medical search engines providing ECC resources such as those provided by PubMed, AmSECT JECT, or AACP Perfusion. Retrieval of hard copy then converted to pdf or pdf downloaded from the library is necessary to share the material with fellow classmates and the course instructor.

These textbooks are required of the Clinical Perfusion students and it is suggested that each clinical affiliate have copies available:

Dailey, JF; Blood; ISBN: 0963181963; Medford, MA; Medical Consulting Group; 2002.

Darovic, Gloria Oblouk; Hemodynamic Monitoring: Invasive and Noninvasive Clinical Application; ISBN-13: 9780721692937; Elsevier Science, New York; 2002

Gravlee, G., Cardiopulmonary Bypass and Mechanical Support: Principles and Practice (4th Ed); ISBN-13: 978-1451193619; Lippincott Williams and Wilkins, Baltimore; 2015.

Gravlee, G., Cardiopulmonary Bypass: Principles and Practice (3rd Ed); ISBN-13: 9780781768153; Lippincott Williams and Wilkins, Baltimore; 2007.

Hensley, FA (Editor), Martin, DE (Editor); Practical Approach to Cardiac Anesthesia (4th Ed) ; ISBN-13: 978-0-7817-9533-3 ; Lippincott Williams & Wilkins ; 2007

Spiess, Bruce (Editor), Steven Gould (Editor), Richard Counts (Editor); Perioperative Transfusion Medicine; ISBN: 0781737559; 2005

Tortora, G.; Principles of Anatomy and Physiology; ISBN-13: 9780470279878; New York; Wiley & Sons, 2008. (any ver 12-17)

Waite, L; Applied Biofluid Mechanics; ISBN: 0071472177; 2007

Additional References:

None

Grading System:

Participants will be graded as a **PASS / NON-PASS** for each of the three levels. Three levels of course completion will be acknowledged by certificates of completion for which ABCP Continuing Education Credit may be applied.

The instructor reserves the right to alter the schedule as necessary with all students informed via email and other appropriate means.

LEVEL	COMPONENT
1	Self-study, review of material, completion of exam 1, application of ABCP SDCEU credit
2	Presentation (s) by CPE, completion of exam 2, application of ABCP Category 1 credit
3	Simulator training by CPE, video recording and feedback, application of ABCP Category 1 credit

Grading Scale & Requirements:

Participation in 80% of course conduct to achieve **PASS**

Self-Study:

Self-Study content will be provided by way of the web portal (<https://unmc.instructure.com/login/ldap>). This material may be completed at the participant's own pace. An examination of the material will occur upon request and 80% must be scored to achieve ABCP SDCEU credit.

CPE Presentation(s):

CPE Faculty or guest Faculty will deliver scheduled material LIVE by means of GOTOMEETING using pre-announced credentials. There will be live presentations associated with the course material each semester the course is offered. An examination of the material will occur in the final week(s) of the semester and a minimum 73% must be scored to be eligible for ABCP Category 1 credit.

Simulator Training:

Simulator training of various instructional scenarios (eg: preparing for CPB, initiation of CPB, myocardial decompression, preparation and cross-clamping the aorta, assessing perfusion adequacy, preparation and removal of aortic cross-clamp, termination of cardiopulmonary bypass, communication during CPB, etc.) will be offered 1 on 1 between instructor and student. Video recording and feedback will be provided. Participation affords eligibility for ABCP Category 1 credit.

NOTE: AVAILABILITY OF THIS OPTION IS BY APPOINTMENT ONLY OR DURING ANNUAL OMAHA-BASED NEBRASKA PERFUSION SOCIETY SCIENTIFIC SESSIONS.

Units/Modules/Course Topics:

See appendix for course topics and schedules

ADA Accommodations:

It is the policy of the University of Nebraska Medical Center to provide flexible and individualized accommodation to students with documented disabilities. To receive reasonable accommodations, students must complete a Request for Services application and provide documentation to the Services for Students with Disabilities office. Information is available at the Counseling and Student Development Center website at www.unmc.edu/stucouns/disabilities.htm The office is located in Bennett Hall, 6001 within the Counseling and Student Development Center. Meetings are by appointment. Adequate time for processing, up to four weeks, is recommended.

Statement of Academic Integrity:

The University of Nebraska Medical Center has established a policy on academic integrity and professional conduct. This policy may be found in the UNMC Student Handbook. All students are expected to adhere scrupulously to this policy. Cheating, academic misconduct, fabrication, and plagiarism are viewed as serious matters and will lead to disciplinary action as described in the UNMC Student Handbook under Procedural rules Relating to Student Discipline. Additional materials related to Responsible Conduct in Research can be found in the UNMC Student Handbook. Selected sections from the UNMC Student Handbook follow:

CHEATING: A general definition of cheating is the use or attempted use of unauthorized materials or information for an academic exercise. Examples of cheating include but are not limited to:

1. using unauthorized materials such as books, notes, calculators or other aids during an examination or other academic exercises;
2. receiving unauthorized assistance from another person during an exam or exercise such as copying answers, receiving answer signals, conversation or having another person take an examination for you;
3. providing assistance to another person during an exam or exercise, such as allowing your answers to be copied, signaling answers or taking an exam for someone else;
4. obtaining answers and/or other information without authorization from someone who has previously taken an examination;
5. including all or a portion of previous work for another assignment without authorization;
6. appropriating another person's ideas, processes, result, or words without giving appropriate credit, i.e. an appropriate attribution or citation (plagiarism). For example, a student who quotes verbatim the results of a previous student's work in a required term paper, but fails to credit the individual through citation. The work is recent and thus cannot be considered common knowledge.

ACADEMIC MISCONDUCT: Academic misconduct is defined as the falsification of official documents and/or obtaining records, examinations or documents without authorization. Several examples of academic misconduct are:

1. the unauthorized acquisition of all or part of an unadministered test;
2. selling or otherwise distributing all or part of an unadministered test;
3. changing an answer or grade on an examination without authorization;
4. falsification of information on an official university document such as a grade report, transcript, an instructor's grade book or evaluation file or being an accessory to an act of such falsification;
5. forging the signature of an authorizing official on documents such as letters of permission, petitions, drop/add, transcripts, and/or other official documents;
6. unauthorized entry into a building, office, file or computer data base to view, alter or acquire documents.

Research misconduct has been defined by the Federal DHHS Office of Research Integrity (ORI) and UNMC subscribes to this definition: "**Research misconduct is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.**"

Research misconduct does not include honest error or differences of opinion. It is important that every student understand the meaning of fabrication, falsification, and plagiarism.

Fabrication is making up data or results and recording or reporting them. Some examples are:

1. indicating a laboratory experiment had been repeated numerous times or
2. done in a controlled environment when it had not, thus leading to an invented or uncorroborated conclusion.

Falsification is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research or academic performance is not accurately represented in the research or academic records.

Some examples are:

1. altering an original source document, misquoting or misrepresenting a source to support a point of view or hypothesis;
2. Using computer software to change research images so they show something different than the original data.

Plagiarism is the appropriation of another person's ideas, processes, results, or words without giving appropriate credit, i.e. an appropriate attribution or citation. An example is:

1. In the methods section of a thesis, a graduate student describes a procedure used in research for the thesis. The procedure was developed by a fellow graduate student in the laboratory of their major professor; however, neither the student who developed this procedure nor the major professor was given credit in the thesis. This implies that the author had himself developed the procedure.
2. In the background section of a thesis, a graduate student quotes verbatim the results of a previous investigator's work but fails to credit the individual through citation. The work is recent and thus cannot be considered common knowledge.

**College of Allied Health Professions
 CLPR 975 Clinical Perfusion Preceptorship Training**

2017-2018

Week	disposition	Day	Date	Interaction	Topic
1	self	Tues	8/22/2017	Self	Pre-Test & Review
2	self	Tues	8/29/2017	Self	Required Preparatory Reading
2	Live 8PM	Thur	8/31/2017	Holt	CLPR 975 Course Introduction
3	recording	Thur	9/14/2017	Holt	State of Perfusion Education
4	recording	Thur	9/21/2017	TBD	Case for Single Entry into Perfusion
5	self	Tues	9/26/2017	Self	PREP: Review of Regulatory Mandates
6	Live 8PM	Thur	9/28/2017	Holt	Review of Regulatory Mandates
7	recording	Thur	10/5/2017	Holt	Review of CPE Curriculum
8	Live 8PM	Thur	10/12/2017	Holt	CPE Competency Process
9	recording	Tues	10/17/2017	Holt	CPE Tools: Random Case Generator
9	Live 8PM	Thur	10/19/2017	Holt	CPE Tools: Simulator Scenarios 1, 2, 3
10	self	Thur	10/26/2017	self	Improving Clinical Precept Skills 1
11	self	Thur	11/2/2017	self	Improving Clinical Precept Skills 2
12	self	Thur	11/9/2017	self	Improving Clinical Precept Skills 3
13	Live 8PM	Tues	11/14/2017	Holt	PD Suggestions for Clinical Preceptors
13	self	Thur	11/16/2017	self	CPE Tools: Weaning (Toronto)
14	self	Tues	11/21/2017	self	CPE Tools: ECMO Jo
15	recording	Tues	11/28/2017	Holt	CPE Tools: Simulated ECC Control 1, 2, 3
16	self	Tues	12/5/2017	self	Post-Test & Review
16	self	Thur	12/7/2017	self	Course Completion Survey
1	self	Tues	1/9/2018	self	Pre-Test & Review
2	self	Tues	1/16/2018	self	Required Preparatory Reading
2	Live 8PM	Thur	1/18/2018	Holt	CLPR 975 Course Introduction
3	recording	Thur	2/1/2018	Holt	State of Perfusion Education
4	recording	Thur	2/8/2018	TBD	Case for Single Entry into Perfusion
5	self	Tues	2/13/2018	self	PREP: Review of Regulatory Mandates
6	Live 8PM	Thur	2/15/2018	Holt	Review of Regulatory Mandates
7	recording	Thur	2/22/2018	Holt	Review of CPE Curriculum
8	Live 8PM	Thur	3/1/2018	Holt	CPE Competency Process
9	recording	Tues	3/6/2018	Holt	CPE Tools: Random Case Generator
9	Live 8PM	Thur	3/8/2018	Holt	CPE Tools: Simulator Scenarios 1, 2, 3
	ESH Sim	Sat	TBD	Faculty	NPS Meeting: Sim Scenarios
10	self	Thur	3/15/2018	self	Improving Clinical Precept Skills 1
11	self	Thur	3/22/2018	self	Improving Clinical Precept Skills 2
12	self	Thur	3/29/2018	self	Improving Clinical Precept Skills 3
13	Live 8PM	Tues	4/3/2018	Holt	PD Suggestions for Clinical Preceptors
13	self	Thur	4/5/2018	self	CPE Tools: Weaning (Toronto)
14	self	Tues	4/10/2018	self	CPE Tools: ECMO Jo
15	recording	Tues	4/17/2018	Holt	CPE Tools: Simulated ECC Control 1, 2, 3
16	self	Tues	4/24/2018	self	Post-Test & Review
16	self	Thur	4/26/2018	self	Course Completion Survey