Perfusion & Extracorporeal Technology

Institute of Emerging Health Professions (IEHP)

1020 Walnut Street
Philadelphia, PA 19107
www.jefferson.edu/IEHP
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On behalf of the entire Institute of Emerging Health Professions (IEHP), I would like to formally welcome you to our perfusion program. We are extremely excited to have the opportunity of further educating you as you aspire to becoming a cardiovascular perfusionist. Over the next twenty-one months, you will gain the knowledge and clinical skills necessary to making you a competent perfusionist. I hope that you take advantage of all of the resources provided to you by Thomas Jefferson University.

Please thoroughly review the Perfusion Extracorporeal Technology student handbook and academic policies and procedures of the University, and the Jefferson College of Health Professions. As you embark on this journey, it is important to understand Thomas Jefferson University’s expectations on professional conduct and resources.

Important University wide policies, including the Community Standards and Student Sexual Misconduct Policy, and information on University Services are found on the Thomas Jefferson University Center City Campus Student Handbook website at www.jefferson.edu/handbook

As program director, I am confident you will enjoy your entire experience at Thomas Jefferson University. If for any reason you have any questions and or concerns regarding the aforementioned, never hesitate to contact me. The entire institute is here to support you throughout your tenure here at Jefferson,

I wish you the best of luck in both your clinical and didactic studies.

Regards,

Brian Schwartz, CCP, RN, MBA
**Mission Statement**

The mission of the Center for Perfusion and Extracorporeal Technology is to train competent, focused and highly-skilled perfusion technicians. Using evidence-based medicine, the program will produce students ready for board examinations and prepare graduates to perform the duties and responsibilities of a cardiovascular perfusionist in a variety of clinical settings.

**Program Goals**

The Center for Perfusion and Extracorporeal Technology will produce *competent entry-level perfusionists in the cognitive, psychomotor, and affective learning domains.* Graduates will be eligible to apply to take the national certification examinations offered by the American Board of Cardiovascular Perfusion.

**Learning Domains**

1. *Cognitive* - Mastery of the entry-level body of knowledge regarding the application of clinical perfusion
2. *Psychomotor* - Mastery of the fundamental and emergency clinical skills necessary for the safe conduct of clinical perfusion
3. *Affective* - Fluency of professional communication, behaviors and attitudes

**Tuition**

- Year 1: $27,000 for 2019-2020 tuition
  Visit [www.jefferson.edu/tuition](http://www.jefferson.edu/tuition) for additional fees
- Year 2: $18,000 for 2020-2021 tuition
  Visit [www.jefferson.edu/tuition](http://www.jefferson.edu/tuition) for additional fees

**Office Hours**

- **Program Director Information:**
  Brian Schwartz, CCP, RN, MBA  
  Brian.Schwartz@jefferson.edu  
  Office Hours: Thursday 8am to 3pm or by appointment on alternative days  
  Office Location: Scott Building, 5th Floor, Suite 525  
  Phone Number: 215-503-73
Faculty and Administration:
Michael Dryer, Michael Dryer, PA-C, DrPH, Dean. Jefferson College of Health Professions
Brian Schwartz, CCP, RN, MBA, Program Director
Rohinton Morris, MD, Medical Director
Mary Gozza-Cohen, PhD, Assistant Director
Tep Ros, MPA, Assistant Director
Mark Napoli, CCP, Clinical Coordinator
Caroline Hample, Administrative Clinical Coordinator

Instructional and Clinical Faculty:
- George Haynes, MS, Physiology/Pharmacology Instructor
- Debra Priore, PA-C, MHS, CV Anatomy/Pathophysiology Instructor
- Robert Layton, CCP, LP, Clinical Faculty
- Joseph Leo, CCP, LP, Clinical Faculty
- Mark Napoli, CCP, LP, Clinical Coordinator, Clinical Faculty
- Amy Tropea, CCP, Clinical Faculty
- Meghan Walsh, CCP, LP, Clinical Faculty
- Rachael Woods, CCP, LP, Clinical Faculty
- Charles Yarnell, CCP, LP, Clinical Faculty

INSTRUCTOR RESPONSIBILITIES
DIDACTIC INSTRUCTION:

<table>
<thead>
<tr>
<th>Name</th>
<th>Instructor Load</th>
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<tbody>
<tr>
<td>Brian Schwartz, Program Director</td>
<td>Perfusion Technology I (4 credits, Fall year 1)</td>
</tr>
<tr>
<td>(609) 413-6027</td>
<td>Medical Ethics (3 credits, to be offered online, Fall year 1)</td>
</tr>
<tr>
<td></td>
<td>Perfusion Technology II (4 credits, Spring year 1)</td>
</tr>
<tr>
<td></td>
<td>Perfusion Basic Science Review (2 credits, Spring year 2)</td>
</tr>
<tr>
<td>George Haynes, MS</td>
<td>Human Physiology I (4 credits, Fall year 1)</td>
</tr>
<tr>
<td></td>
<td>Human Physiology II (4 credits, Spring year 1)</td>
</tr>
<tr>
<td>Debra Priore, PA-C, MHS</td>
<td>Cardiovascular Anatomy (3 credits, Fall year 1)</td>
</tr>
<tr>
<td></td>
<td>Pathophysiology (4 credits, Spring year 1)</td>
</tr>
</tbody>
</table>
| Carol Beck, PhD                   | General Pharmacology (3 credits, Spring I year 1)
**CLINICAL INSTRUCTION:**

<table>
<thead>
<tr>
<th>Name</th>
<th>Location</th>
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</thead>
<tbody>
<tr>
<td>Brian Schwartz, Program Director</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(609) 413-6027</td>
<td></td>
</tr>
<tr>
<td>Amy Tropea</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(484) 919-9334</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>Mark Napoli, Clinical Coordinator</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(609) 235-4146</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>Charles Yarnell</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(215) 512-8957</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>Bob Layton</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>(610) 217-4767</td>
<td></td>
</tr>
<tr>
<td>Rachael Woods</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(609) 427-5059</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>Megan Walsh</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(856) 693-2376</td>
<td>Abington Memorial Hospital</td>
</tr>
<tr>
<td>Joseph Leo</td>
<td>Thomas Jefferson University Hospital</td>
</tr>
<tr>
<td>(215) 512-8957</td>
<td>Abington Memorial Hospital</td>
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</table>

**Curriculum**

**Fall Semester - Year 1**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Course Number</th>
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</thead>
<tbody>
<tr>
<td>Perfusion Technology I</td>
<td>4</td>
<td>PER 500</td>
</tr>
<tr>
<td>Human Physiology I</td>
<td>4</td>
<td>PER 510</td>
</tr>
<tr>
<td>Cardiovascular Anatomy</td>
<td>1</td>
<td>PER 520</td>
</tr>
<tr>
<td>Clinical Application in Perfusion I</td>
<td>3</td>
<td>PER 690</td>
</tr>
<tr>
<td><strong>Total Credit Hours for Fall Semester</strong></td>
<td><strong>12</strong></td>
<td></td>
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</table>

**Spring Semester - Year 1**

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Credit Hours</th>
<th>Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfusion Technology II</td>
<td>4</td>
<td>PER 600</td>
</tr>
<tr>
<td>General Pharmacology</td>
<td>3</td>
<td>PR 522</td>
</tr>
<tr>
<td>Human Physiology II</td>
<td>4</td>
<td>PER 610</td>
</tr>
<tr>
<td>Pathophysiology</td>
<td>3</td>
<td>PER 540</td>
</tr>
<tr>
<td>Clinical Application in Perfusion II</td>
<td>2</td>
<td>PER 691</td>
</tr>
<tr>
<td><strong>Total Credit Hours for Spring Semester</strong></td>
<td><strong>16</strong></td>
<td></td>
</tr>
<tr>
<td>Summer Semester - Year 1</td>
<td>Credit Hours</td>
<td>Course Number</td>
</tr>
<tr>
<td>-------------------------</td>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>Applications of ECMO &amp; VAD</td>
<td>1</td>
<td>PER 640</td>
</tr>
<tr>
<td>Clinical Application in Perfusion III</td>
<td>12</td>
<td>PER 692</td>
</tr>
<tr>
<td>Total Credit Hours for Summer Semester</td>
<td>13</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Fall Semester - Year 2</th>
<th>Credit Hours</th>
<th>Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Application in Perfusion IV</td>
<td>12</td>
<td>PER 693</td>
</tr>
<tr>
<td>Medical Ethics</td>
<td>2</td>
<td>PER 530</td>
</tr>
<tr>
<td>Total Credit Hours for Fall Semester</td>
<td>14</td>
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</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Spring Semester - Year 2</th>
<th>Credit Hours</th>
<th>Course Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinical Application in Perfusion V</td>
<td>12</td>
<td>PER 694</td>
</tr>
<tr>
<td>Perfusion Basic Science Review</td>
<td>2</td>
<td>PER 550</td>
</tr>
<tr>
<td>Total Credit Hours for Spring Semester</td>
<td>14</td>
<td></td>
</tr>
</tbody>
</table>

Additional Curriculum Information:

- The academic calendar for the perfusion program at Thomas Jefferson University will commence the first week of September 2019 and run continuously through May 2021. Students will be introduced into the operating room starting in September. The clinical affiliates for the perfusion program at Thomas Jefferson University will be as follows:
  - Thomas Jefferson University: Philadelphia, PA
  - Abington Memorial Hospital: Abington, PA
  - Cooper University Hospital: Camden, NJ
  - Temple University Hospital: Philadelphia, PA
  - Jefferson Torresdale Hospital (Aria): Philadelphia, PA
  - AtlantiCare Regional Medical Center: Atlantic City, NJ
  - Geisinger Wyoming Valley Medical Center: Wilkes-Barre, PA
  - Newark-Beth Israel Medical Center: Newark, NJ
  - University of Maryland Medical Center: Baltimore, MD
  - Vidant Medical Center: Greenville, NC
  - Christiana Care: Newark, DE

- In order for students to be successful during their clinical rotations, the following courses will aid in their clinical growth:
  - Perfusion Technology I, II
  - CV Anatomy
  - Human Physiology I,II
  - Pharmacology
Clinical Responsibilities
Students are responsible to complete their clinical requirements over 21 months. Please refer to your Clinical course syllabus for more information. Students are expected to complete the following required amount of days in the operating room:
- PER 690 – 2 days per week
- PER 691 – 3 days per week
- PER 692 – 5 days per week
- PER 693 – 5 days per week
- PER 694 – 5 days per week

On-Call Responsibilities
Every perfusion student will be responsible for taking call during each of their clinical rotation sites. The amount of on call is dependent upon the clinical site and number of students at each facility. Students will be “on-call” a minimum of one (1) weekend (Friday 3pm to Monday 7am) per month and one (1) day per week (Monday-Thursday 3pm to 7am). It is mandatory that each student “on-call” provides the clinical site with their contact information so they can be notified of emergency procedures during the time they are “on-call”. The expected “response time” (time from getting notification of the emergency procedure to time of arrival at the clinical site) for any emergency procedure is 30 minutes.

Due to the amount of mandatory clinical hours, didactic courses, and on-call responsibilities, it is **highly recommended that students do not maintain employment during their academic program.**

Attendance Regulations:

For Didactic courses:
Attendance/participation is expected in all classes for which a student is registered. The instructor determines attendance/participation requirements for each course as detailed in the course syllabus.

For Clinical courses:
Students are permitted to take a maximum number of 10 days off from their clinical course for each year (Fall, Spring, and Summer) of their program. These days include sick days and may not be rolled over. If a student is sick and unable to attend their assigned clinical case, the student must notify the site coordinator by 6:00am day of surgery via text or call. Student must receive acknowledgement from the site coordinator that their message was received. In addition to the aforementioned, the student must notify both the Program Director and Clinical Coordinator by email regarding their clinical absence.
Academic Standards & Policies

ACADEMIC INTEGRITY POLICY

The Administration and faculty of the Institute of Emerging Health Professions (IEHP) believe that academic integrity is one of the most important values and behaviors that should be practiced by students during their academic and clinical education. Integrity and honesty are especially valued in the healthcare professions because accurate diagnosis and treatment of patients are greatly dependent upon a health practitioner’s honest and capable assessment of symptoms and diagnostic tests. This assessment can be rendered only by the practitioner who has “real” knowledge obtained as a student who answered test questions independently, thereby identifying and correcting mistakes. The successful practitioner can communicate important diagnostic and therapeutic information in writing because, as a student, such skills were developed and/or enhanced by completing writing assignments independently. The practitioner who was dishonest in his or her educational pursuits is at great risk for making diagnostic and therapeutic mistakes and such errors can mean that someone’s health care is mismanaged.

Because we are committed to educating practitioners who provide the highest quality of health care, the administration and faculty are equally committed to mandating and enforcing the practice of academic integrity by all students.

For more information regarding the Academic Integrity Policy, please refer to the Jefferson College of Health Professions Student Handbook.

Transfer of Credit Policy

The Perfusion and Extracorporeal Technology program does not accept any transfer credits for any of the courses within its program.

Grading System

At the close of an academic term, each instructor assigns a letter grade indicating the quality of a student’s work in the course.

Grades are part of the student’s permanent record. Once submitted and entered on the student’s transcript, no changes will be made to this record, with the exception of entering the final grade to replace an “I” or correcting an inappropriate grade (refer to Grade Appeal Process).
Grading Scale (Didactic)

Students are expected to maintain a C- minimum within the program at all times. The following grading scale is used for all graded courses.

<table>
<thead>
<tr>
<th>Letter Grade</th>
<th>Numeric Value</th>
<th>Quality Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>93-100</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>90-92.99</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>87-89.99</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>83-86.99</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>80-82.99</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>77-79.99</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>73-76.99</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>70-72.99</td>
<td>1.7</td>
</tr>
<tr>
<td>D</td>
<td>60-69.99</td>
<td>1.0</td>
</tr>
<tr>
<td>F</td>
<td>Below 60</td>
<td>0.0</td>
</tr>
<tr>
<td>WF</td>
<td></td>
<td>0.0</td>
</tr>
</tbody>
</table>

Grading Scale (Clinical)

Based on each student’s clinical performance, the following grades will be awarded at the conclusion of each clinical rotation.

P: PASS

F: FAIL

Students will be evaluated on their performance level during each procedure. Evaluation forms will be submitted and reviewed on a weekly basis by both the Program Director (PD) and Clinical Coordinator (CC). Identified clinical deficiencies will be addressed with the student on an individual basis and will be addressed with student at the time of the noted deficiency. At the conclusion of each semester, the Program Director will review each student’s clinical performance using an evaluation form noting the student’s competency level for each learning domain. Students will receive a pass or fail grade based on the evaluation results. Students who do not receive a pass grade must undergo remediation.

Student Grievance Policy

All members of the Thomas Jefferson University Community have the right to express concerns when they perceive that they have been treated in a manner not consistent with the standards of conduct at the University. The student grievance procedure is intended to allow students this mode of expression. Please refer to the JCHP Student Handbook for details on the Student Grievance Procedure.
Academic Probation and Dismissal

Students enrolled in the perfusion program at TJU, who do not maintain the minimum didactic criteria as outlined above will be placed on Academic Probation for at least one term. Students are allowed to retake any course that he/she is not awarded a C- or higher the next time it is offered by the program. During the time, at which the student is placed on academic probation, they are allowed to continue with their current course work and clinical rotation. At the end of the probationary period, if the student:

1. Achieves the minimum passing grade (C- or above) he/she will be reinstated in good standing, or
2. Achieves less than a passing grade (below C-), he/she will be subject to dismissal from the program/school.

Actions related to academic probation and dismissal must be reviewed by the Associate Dean of JCHP before action can be taken.

Failure to Complete a Course

Please refer to the grading section of the JCHP handbook.

Repeating a Course

A student who receives a grade of C- or lower in any course required for the student’s degree or certificate program must repeat the course the next time it is offered. Students may repeat up to two courses one time only.

Whenever a course is repeated, no additional hours attempted will accrue, and the latter grade replaces the previous grade in computing the grade point average and in assignment of academic credit. Both grades, however, remain a part of the student’s permanent academic record.
Remediation Policy

**Didactic Remediation**

Any student who receives an overall grade less than a C- in any didactic course will be required to undergo remediation and retake the necessary educational material identified for the course. The following remediation process will be utilized and implemented:

1. Program Director will notify student of academic standing and need for remediation
2. Student will meet with both the Program Director and didactic instructor to identify academic difficulties and options.
3. Program Director, along with the course instructor will develop an individualized remediation plan, with specific identified metrics to indicate successful remediation.

Didactic remediation may include, but is not limited to:

- Review of study material
- Review of course content and identify areas for concern
- Participation in mandatory meetings with program director or respective faculty to review student's progress toward successful remediation
- Completion of identified assessments, which may include a comprehensive exam, a written assignment, demonstration of competency, etc.

**Clinical Rotation Remediation**

If a student is awarded a F(Fail) as an overall grade for any clinical rotation the following steps will be taken to remediate the student’s performance

1. Program director and Clinical Coordinator will provide student with a remediation plan, that includes measurable objectives and deadline for completion
2. Upon completion of remediation, the Program Director and Clinical Coordinator will independently evaluate the student to determine whether or not the student has been successful in addressing all identified deficiencies and meet all objectives outlined in the remediation plan to successfully pass the clinical course.
3. If the student does not successfully meet the objectives in the remediation plan and earn a (P)assing grade, the student will be subject to dismissal from the program.

**Grade Appeal Policy**

The grade appeal policy and procedure affords recourse to a student who believes they have evidence that an inaccurate final grade has been assigned under identified circumstances. For the detailed grade appeal policy and corresponding procedures, please refer to the JCHP Student Handbook.
Requirements for Graduation

In order for students to qualify for graduation and receive their certificate, individuals must have met or exceeded the following requirements:

- Achieve a C- or better in all didactic courses
- Successfully pass all clinical rotation sites
- Perform a minimum of 150 procedures under the direct supervision of a certified cardiovascular perfusionist (CCP).
- Perform or shadow a minimum of ten (10) pediatric procedures
- Obtain an 80% or better on the Program’s exit exam
- All financial obligations to the University have been met

Student Clinical Work

Because patient well-being is a major concern of the Institute and University, it is necessary that certain actions be taken when a student’s clinical practice poses a potential threat to patient health, welfare or safety. Therefore, students are subject to the regulations governing clinical practice and may be placed on probation by the Institute. Students are recommended for dismissal for unsafe clinical behavior. Unsafe clinical behavior include but not limited to performing procedure without preceptor oversite, violating HIPAA, violating dresscode, unprofressional conduct in the operating room that are outlined by clinical site, and not reporting medical errors.

While students are involved in their clinical rotations, time spent in the operating room will be tracked daily on each clinical preceptor evaluation form. Time spent in the operating room will be reviewed by the Clinical Coordinator to verify each student is spending adequate time in the clinical setting.

Health Policies

Thomas Jefferson University, Jefferson Institute of Emerging Health Professions requires that all students meet required prerequisite health screening requirements 30 days prior to matriculation. This includes immunizations and PPD. In order for students to enter the clinical area, they need to upload the appropriate documentation of completed health requirements to their Complio (American Date Bank) account or make arrangements with University Health Services to ensure that these requirements are met. There will be NO exceptions granted to this policy. Students are responsible for any additional clearances requested by the clinical site.
Dress Code

All students are expected to dress appropriately during on-campus and off-site clinical courses using general socially acceptable attire. During one’s clinical rotation, students must wear hospital issued scrubs when working in the operating room setting and abide by clinical site dress code. It is the responsibility of the site coordinator to assist students in getting access to approved hospital attire.

Student Support Services

The Office of Student Affairs offers support to students in a variety of ways. Academic Support Services and the Student Writing Center offer workshops and one-on-one consultations to help guide students through their academic career. Students needing accommodations can also contact the Program Director to facilitate the Disability Accommodations process. Policy guidance can be found at:

http://www.jefferson.edu/university/academic-affairs/schools/student-affairs.html
Student Handbook Acknowledgement Form

Thomas Jefferson University

Institute for Emerging Health Professions

Perfusion and Extracorporeal Technology

My signature below acknowledges receipt of the Perfusion Student Handbook. I understand that I am responsible for reading and abiding by the materials contained within the Perfusion Student Handbook, which contain important information needed during my student experiences at Thomas Jefferson University. Additionally, I understand that it is my responsibility to be familiar with and observe the policies and procedures of the Jefferson College of Health Professions and Thomas Jefferson University.

Name (Printed):______________________________________________________________

Signature:_______________________________________________________________________

Date:_________________