

VINAYAKA MISSION'S RESEARCH FOUNDATION



SCHOOL OF ALLIED HEALTH SCIENCES VMRF - DU

CONSULTANCY SERVICES BROCHURE

Department of Perfusion Technology

SCHOOL OF ALLIED HEALTH SCIENCES VIMS CAMPUS, VINAYAKA MISSION'S RESEARCH FOUNDATION (Deemed to be University) N.H-47, Sankari Main Road Seeragapadi, Veerapandi, Post, Salem, Tamil Nadu 636308 Phone: 70944 50128, https://lahs.ac.in/





CONSULTANCY SERVICES

Prof. Dr. B. Sendilkumar, Dean & Director, SAHS, VMRF-DU, Salem. E-mail: dean.fahs@vmu.edu.in

Mr. R. Raghul, Assistant Professor, SAHS, VMRF-DU, Salem. Mob.no: +91 8778631499, E-mail: raghulsmart39@gmail.com

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About the University

The Thirumuruga Kirupananda Variyar Thavathiru Sundara Swamigal Medical Educational and Charitable Trust was established in the year 1981 by Salem based philanthropist and educationist Dr. A. Shanmugasundaram with an inner urge to serve the society in general and the needy in particular by imparting education. This noble thought and the vision of the visionary came true with Recognition of Govt. of India as Vinayaka Mission's Research Foundation under section 3 of UGC act 1956 in the year 2001 and Accredited by NAAC.



About the College

School of Allied Health Sciences was started in the year 2004 with just 20 students and one department with a motive of giving the best education and training in the field of Allied health sciences. Now it has grown enormously not only in student strength but also in terms of its quality and dynamicity. We at SAHS are dedicated to make our students excel in academic and life skills, the most needed in this fast changing world. The infra structure, clinical exposure, hands on training, up gradation of techniques and teaching methodologies are the key to outstanding performances by our students. Extensively available book and international journals opens up the new possibilities in different streams of study. Now we are stepping into the 23rd successful year with 13 Under Graduate courses, 13 Post Graduate courses, and 3 Diploma courses,





DEPARTMENT OF PERFUSION TECHNOLOGY

ABOUT THE DEPARTMENT

The Department of Perfusion Technology at School of Allied Health Sciences (VIMS CAMPUS), Vinayaka Missions Research Foundation, DU, Salem is a dynamic and highly specialized unit dedicated to clinical excellence, research, and education in cardiovascular perfusion. Our faculty and staff are actively involved in providing cutting-edge training in extracorporeal circulation, blood conservation strategies, organ protection during surgery. The department caters to UG and PG students, emphasizing evidence-based learning and simulation-based training. We are committed to fostering collaboration with hospitals, industries, and research bodies by offering professional consultancy services in areas that demand perfusion expertise.

AREAS OF CONSULTANCY SERVICES

- Cardiopulmonary Bypass System Setup & Optimization
- Simulation-Based Perfusion Education & Training
- Advanced Hemodynamic Monitoring & Interpretation
- Blood Conservation Techniques during Cardiac Surgeries
- Quality Control & Maintenance of Perfusion Equipment
- Oxygenator Performance Testing and Analysis
- Custom Protocol Development for Perfusion Practice
- Point-of-Care Monitoring Support (ACT, ABG, HCT etc.)
- Perfusion Charting Systems & EHR Integration Consultation





Revolutionize Your Learning Journey with Simulation-Based Training in Perfusion Technology! 'Where Theory Meets Hands-On Precision'

Experience real-world scenarios in a risk-free environment designed to sharpen your skills and boost your confidence.

INTRODUCTION:

"Are you ready to enhance your skills and build confidence in the operating room? Welcome to School of Allied Health Sciences, Vinayaka Mission's Research Foundation – DU, Salem, where simulation-based learning transforms Perfusion Technology education!"

Why Choose School of Allied Health Sciences?

"Our institution is equipped with cutting-edge simulation facilities, including high-fidelity perfusion machines that offer a realistic learning experience. Our programs are designed to adapt to your skill level. Whether you're a beginner or looking to advance your expertise, our simulation training is tailored to meet your needs."

"We don't just teach theory—we focus on real-world application. Our simulation-based curriculum covers:

- Aseptic techniques and priming the pump.
- Managing emergencies like air embolism and pump failure.
- Performing complex procedures like CABG, ECMO initiation, and valve surgeries."

"We prepare you to face real-life challenges in the operating room by training you in:

- Critical decision-making during emergencies.
- Effective communication and teamwork under pressure.
- Mastery of troubleshooting and problem-solving techniques."

"Our institution has collaborations with leading hospitals and healthcare organizations, providing opportunities for internships, placements, and networking to kick start your career."





Why Choose Simulation-Based Training?

- Gain **practical expertise** by working on state-of-the-art simulation models that replicate real-life perfusion scenarios.
- Develop **critical thinking skills** to handle complex cases and emergencies with confidence.
- Learn in a **safe and controlled environment** without risking patient safety.

≤ What We Offer:

Realistic Simulations

- Practice operating heart-lung machines, priming circuits, and troubleshooting in live case scenarios.
- Experience simulated complications like air embolism, pump failure, and hemodynamic instability to prepare for real-world challenges.

Expert-Led Training

• Sessions guided by experienced perfusionists and clinicians, offering personalized feedback and mentoring.

Team-Based Learning

• Collaborate with other healthcare professionals to practice multidisciplinary teamwork during cardiopulmonary bypass (CPB).

Performance Analytics

• Receive detailed performance reports to track your progress and identify areas for improvement.





Areas of Simulation

- Assembling the Circuit
- Priming the Circuit
- De-Airing the Circuit
- Cardioplegia Preparation
- Cardioplegia Delivering Methods
- Antegrade autologous priming
- Retrograde autologous priming
- Hemoconcentrator
- Arterial Filter







Simulation based research projects

- Data Abstraction
- At School of allied health Sciences, we are proud to be at the forefront of innovation in Perfusion Technology education and research. Our simulation labs have enabled us to conduct groundbreaking studies that not only improve perfusion practices but also enhance patient outcomes.

Emergency Scenarios

Simulate emergencies to train quick decision-making:

- Air Embolism
- Pump Failure
- Oxygenator Failure
- Hypotension or Hypertension Events

Hands-On Priming and Debubbling Challenges

- Provide students with a dry circuit and simulate various priming and Debubbling scenarios, including:
- Incorrect priming techniques.
- Handling microbubbles in arterial lines.

Cross-Disciplinary Collaboration

• Conduct mock cardiopulmonary bypass (CPB) scenarios with surgeons, anesthetists, and perfusionists to simulate real-life teamwork during surgeries.

Introduce hemodynamic challenges that require students to calculate and administer:

- Heparin for anticoagulation.
- Vasopressors or inotropes.
- Protamine reversal after CPB.

Time Trials

- Organize time-based challenges for:
- Assembling the CPB circuit correctly.
- Rapidly replacing disposable parts like an oxygenator or pump head.





+[↓] Who Can Join?

- Aspiring and current perfusion technology students looking to bridge the gap between theory and practice.
- Recent graduates looking to refine their skills before entering the workforce.
- Experienced perfusionists aiming to stay updated with the latest techniques."

Program Highlights:

- **Duration:** Customizable sessions ranging from single-day workshops to multi-week intensive training.
- Location: Perfusion Simulation Lab, SAHS, VMRF-DU, SALEM.
- Mode: On-site, with virtual simulation options available.

Call to Action

Call us at 8778631499 or visit <u>https://fahs.ac.in/</u>

Don't miss this opportunity to elevate your skills and set yourself apart in the field of perfusion technology.

"Join Us Today!"

"Don't miss this opportunity to elevate your perfusion skills. Register now at https://fahs.ac.in/

"Experience the Future of Learning!"

"Book a demo session or learn more about our courses at [School of allied health Sciences (VIMS CAMPUS) / Vinayaka Mission's Research Foundation – DU, Salem]. Your future in perfusion starts here!"

🖙 "Master the Art of Perfusion with Hands-On Simulation Training!"