

## RCS PHD COURSE LIST

### CURRICULUM

Year One   Semester One   Fall
Advanced Statistics
Assisted Reproduction Evidence Based Practice Journal Club
Comparative Anatomy & Physiology of Reproduction
Year One   Semester Two   Spring
Experimental Design
Advanced Topics IVF
Developmental Biology
Year One   Semester Three   Summer
Dissertation Research Proposal Development
Research Proposal Presentation
Year Two   Semester Four   Fall
Toxicology and Infertility
Research Literature Review
Advanced Topics Male Infertility Research Literature
Year Two   Semester Five   Spring
Clinical Laboratory Management
Study Design and IRB Research
Advanced Topics Female Infertility
Year Two   Semester Six   Summer
Data Collection Research Project
Research Project Presentation
Year Three   Semester Seven   Fall
Data Analysis Research Project
Dissertation Writing
The Business of IVF
Year Three   Semester Eight   Spring
Final Dissertation and Defense



### PROGRAM MISSION

The mission of the PhD program in Reproductive Clinical Science specializing in Embryology and Andrology at EVMS and the Jones Institute for Reproductive Medicine is to provide excellent graduate education in the preparation of individuals who will direct and manage reproductive laboratories and conduct independent research.

### PROGRAM GOALS

- Provide a broad base of graduate education in foundational sciences: comparative reproductive anatomy and physiology, developmental biology, toxicology and infertility, molecular biology, advanced statistics and experimental design.
- Establish a focused knowledge base and competencies using evidence-based practices in the reproductive clinical sciences: embryology, andrology, endocrinology and cryobiology laboratories.
- Promote the development of independent research skills, as well as quality-control skills, which will lead to the development of clear, concise and answerable research or quality improvement questions.
- Foster a positive and collaborative team attitude toward patient care including: patient/gamete management, privacy issues, patient safety and ethical/legal concerns for the clinic and patient.

### CONTACT INFORMATION

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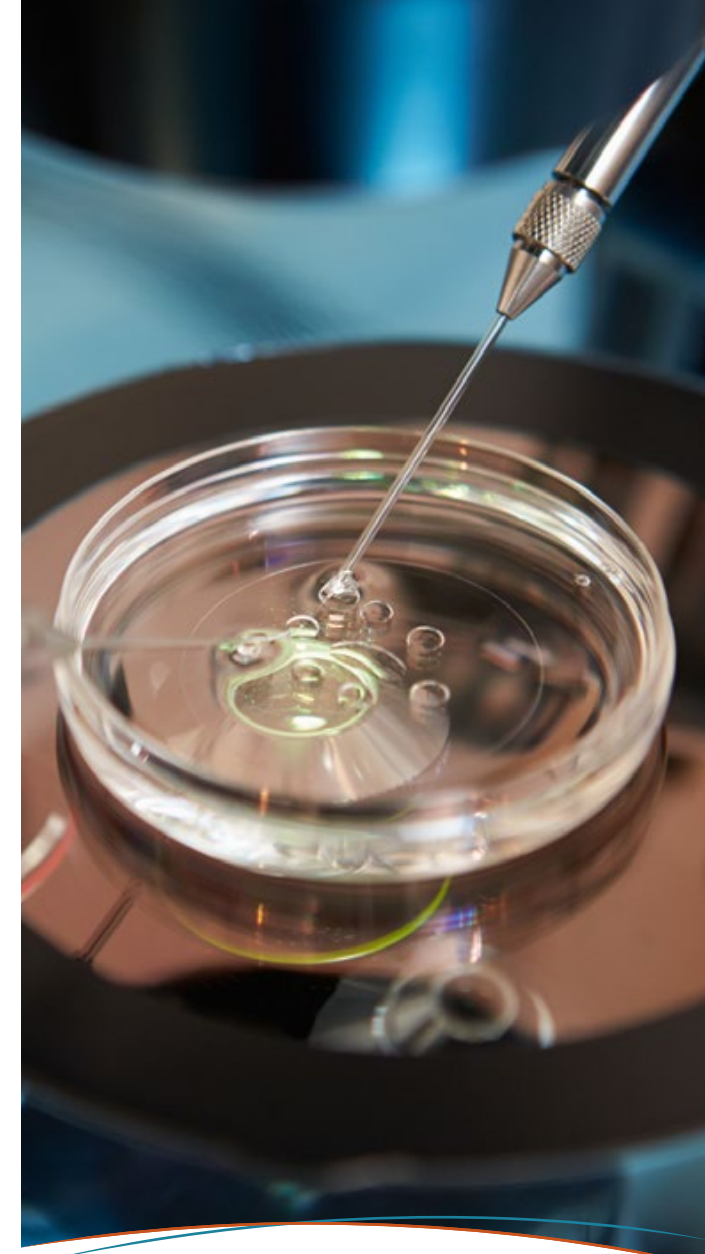
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FOR MORE INFORMATION VISIT  
[WWW.EVMS.EDU/RCS-PHD](http://WWW.EVMS.EDU/RCS-PHD)

**EVMS**  
REPRODUCTIVE  
CLINICAL SCIENCE, PhD

REPRODUCTIVE  
CLINICAL SCIENCE  
DOCTORAL PROGRAM  
**EVMS**  
Eastern Virginia Medical School





## PROGRAM OVERVIEW

Eastern Virginia Medical School and the Jones Institute for Reproductive Medicine is offering a doctor of philosophy degree in Reproductive Clinical Science. This program is designed for applicants who have a Master's Degree in Clinical Embryology and Andrology, or a related field with relevant course work, who are experienced Embryologists or Andrologists who seek to become independent researchers and certified embryology/andrology lab directors. This program provides graduate level education in comparative reproductive anatomy and physiology, molecular biology, developmental biology, advanced statistics, experimental design and clinical laboratory.

- Fully online program.
- Designed for adult learners & working professionals.
- Credit hours = 49 completed in 32 months\*.
- Two years of graduate level didactic and research development courses.
- Comprehensive qualifying exam at the end of the third semester.
- The program has a focus on independent research.
- In the final semester prepare and defend dissertation projects.
- Six students are accepted each year.
- On campus component for evaluation and teaching.

\*Additional credit hours and time may be required to complete research dissertation.

## OBJECTIVES

- Evaluate advances in molecular biology, comparative reproductive anatomy and physiology, developmental biology, laboratory management as they apply to the clinical reproductive sciences.
- Direct and manage all aspects of clinical reproductive sciences laboratories: in vitro fertilization (IVF), andrology, endocrinology and gamete cryobanking laboratories.
- Critically evaluate and interpret the current literature as well as federal regulations.
- Develop and implement laboratory processes and procedures to ensure best clinical lab practices, outcomes and compliance.
- Establish and maintain protocol records and data for practice performance quality control and continuous quality improvement as well as for laboratory inspection and accreditation with state and federal regulatory agencies.
- Design, implement and evaluate laboratory research and practice improvement projects through the development of a dissertation research project.
- Create educational and training procedures for clinical staff, physicians and laboratory technicians regarding current methods of assisted reproductive laboratory technologies.
- As a member of an interprofessional clinical team evaluate ethical and legal aspects of ART; design procedures, protocols to address clinic and patient related concerns: privacy, safety and proper legal guidelines.

## ADMISSION REQUIREMENTS

- A Master's of Science Degree is required to apply this program. Accepted topic areas included: Clinical Embryology, Biology, Molecular Biology, Developmental Biology, Reproductive Sciences, or Biochemistry. Other Master's of Science Degrees may be acceptable.
- Grade point average (GPA) of 3.00 (B) or higher in the master's degree.
- Prerequisites: Have successfully completed a Master's in Clinical Embryology and Andrology - OR- in an acceptable master's, one semester of each of the following: Biochemistry, Introductory Biostatistics, Molecular Cellular Biology, and Developmental Biology or Genetics.
- Established Clinical Embryologist/Andrologist with at least three years of embryology experience. Letters of support from employers indicating level of experience and willingness to allow applicant to perform prospective research projects in their current position.
- Three letters of recommendation, (submitted electronically) from individuals who are acquainted with you academically and/or professionally.
- A personal essay.
- GRE Scores.
- International students, or applicants whose native language is not English, must take the TOEFL exam.



## EVMS & THE JONES INSTITUTE

Eastern Virginia Medical School (EVMS), through its prestigious Howard and Georgeanna Jones Institute for Reproductive Medicine, is a pioneer in assisted reproductive technology (ART). In 1981, the first in vitro fertilization baby in the USA was born through the efforts of the Jones Institute. The Jones Institute is widely acknowledged to be an international leader in clinical and scientific research in ART, and has trained many prominent physicians and scientists.

## CONTACT INFORMATION

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