

RCS MS COURSE LIST

CURRICULUM

Name
Semester One
Biochemistry & Molecular Cell Biology
Introduction IVF, Laboratory Tech and Skills Development
Semester Two
Molecular Biology & Genetics
Female Reproductive Endocrinology and Infertility
Current Topics in IVF - Journal Club
Semester Three
In Vitro Fertilization Technology
Gametes and Embryos
Research Methods Capstone Thesis: Project & Statistics
Semester Four
Advanced IVF, Laboratory Tech and Skills Development
Research Methods Capstone Thesis: Project Proposal
Semester Five
Genetics of Reproduction and Infertility
Research Methods Capstone Thesis: Master's Project
Male Reproductive Function and Dysfunction
Semester Six
Research Methods Capstone Thesis: Scientific Writing
Cryopreservation
Ethics, Society and ART

Students are required to attend two, five to six-day Residential Courses at the EVMS campus in Norfolk Virginia. In the first year it is at the end of the summer session the third week in July. In the second year it is held during the third week in June.



PROGRAM MISSION

The mission of the Reproductive Clinical Science Master's Program at Eastern Virginia Medical School is to provide an educational program dedicated to academic excellence that provides the essential knowledge and skills to produce competent clinical embryologists and andrologists.

PROGRAM GOALS

- Provide a broad base of graduate education in foundational sciences: biochemistry, embryology, genetics, molecular biology and biostatistics.
- Establish a focused knowledge base and competencies in introductory laboratory science: embryology and andrology and endocrinology, as well as technical IVF hands on skills.
- Promote the development of the critical-thinking skills in the evaluation of the literature as well as in the design of research and quality-control projects.
- Establish the roles of different team members in IVF in terms of patient diagnosis and treatment as well as privacy issues, patient safety and ethical/legal concerns.

CONTACT INFORMATION

EVMS REPRODUCTIVE CLINICAL SCIENCE

JONES INSTITUTE BUILDING
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ADMISSIONS & ENROLLMENT

EMAIL: HPADMISSIONS@EVMS.EDU
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EVMS FINANCIAL AID

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EVMS DIVERSITY & INCLUSION

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FOR MORE INFORMATION VISIT

www.evms.edu/rcs-ms



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PROGRAM OVERVIEW

The Reproductive Clinical Science Master's Program is designed for clinical embryologists, andrologists, physicians and others involved in the practice of ART. The program goal is to provide multidisciplinary graduate level education and training in current technology to meet the ever changing demands in clinical and research aspects of assisted reproductive medicine embryology and andrology. This program was designed to create a bridge between clinical, laboratory and molecular reproductive medicine and the basic sciences as well as evaluate skills and offer training in basic and advanced techniques.

- Online program with yearly residential courses.
- Designed for adult learners & working professionals.
- Credit hours = 36 completed in 24 months.
- General and specialized biomedical sciences training.
- Best practices for the IVF laboratory with special emphasis on design, work flow, QC/QA, CLIA 88 and current FDA regulations.
- Capstone/ Thesis Project.
- Two courses have online and on-campus components taught during the yearly residential courses.
- Ethical concerns and patient rights covered throughout curriculum.
- Internships in second year of the program.

OBJECTIVES

- Understand the relevance and application of advances in biochemistry, cell biology and genetics as they apply to ART.
- Learn the reproductive endocrinologists, embryologists and andrologists perspectives for diagnosis and treatment of infertility.
- Apply best practices in clinical embryology and andrology laboratory and reproductive medicine research.
- Prepare and adapt for new technologies as well as new regulatory guidelines.
- Strengthen skills in critical reading and interpreting the research literature.
- Develop independent synthesis, analysis and study design skills through writing a thesis.
- Anticipate future laboratory and personnel requirements.
- Understand biomedical ethical as well as legal principles and patient privacy issues as they relate to clinical IVF and medical research.
- Master basic hands on skills in embryology and andrology.

ADMISSION REQUIREMENTS

- A grade point average (GPA) of 2.75 (B-) or better.
- Have successfully completed two semesters of college-level biology and chemistry.
- If applying as an experienced embryologist or andrologist:
 - Currently work or have worked in clinical IVF or basic reproductive research as an embryologist, andrologist, nurse, physician or research scientist.
 - Complete an experience evaluation form and submit to the RCS office after application submission.
- Applying with no experience:
 - Must shadow at an IVF facility and obtain a letter that lists what was observed.
 - Contact the program office for more details and assistance.
- Two letters of recommendation (submitted by the reference electronically) from individuals who are acquainted with you academically and/or professionally.
- A personal essay.
- International students, or applicants whose native language is not English, must take the TOEFL and receive a score equal to or greater than 550 for the paper-based test, or 213 for the computer-based test, or 80 for the iBT exam.



EVMS & THE JONES INSTITUTE

In 1981, the first baby conceived via in vitro fertilization was born thanks to the pioneering efforts of the Howard and Georgeanna Jones Institute at EVMS. The Jones Institute became an international leader in clinical and scientific research and trained many prominent physicians and scientists. In 2021, the Jones Institute transitioned all patient care to its affiliated partner Shady Grove Fertility (SGF), a premier fertility center. SGF Jones Institute operates on the EVMS campus in Norfolk, Va.

CONTACT INFORMATION

Program Director

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