

Doctor of Philosophy

Reproductive Clinical Sciences-Embryology and Andrology (PhD)

This is an online program that has been designed for adult learners and working professionals who are in the workforce while they are enrolled in this program, with the exception of one on-campus course during the program. This 49 credit-hour program is projected to be completed in 32 months; however, due to the nature of independent research, more time may be needed.

The program starts in the fall. Students take two years of graduate-level didactic and research development courses and must pass a comprehensive qualifying exam at the end of their third semester to advance to candidacy. The final year of the program focuses on dissertation research. During the final semester, the students will prepare and defend their dissertation projects. Six to eight students are accepted each year to this three-year online program.

Admission

Candidates must have completed all master's degree requirements and have been issued a master's degree prior to matriculating as an EVMS student. If the master's degree was issued by a U.S. college or university, as a general rule it should be from a regionally accredited institution. However, the program may grant exceptions on a case-by-case basis. Official transcripts from the awarding institution must specify the date upon which the degree was issued. Graduate-level transfer credits will be considered on a case-by-case basis.

Listed below are the requirements for application and admission into the RCS PhD program. If you have any questions or concerns about these requirements, please contact the program (<http://catalog.odu.eduemailto:RCSources@evms.edu>).

Applicants must:

- Have a Master of Science degree in one of the following areas: Clinical Embryology, Biology, Molecular Biology, Developmental Biology, Reproductive Sciences or Biochemistry. Other Master of Science Degrees may be acceptable; contact the program to inquire.
- Have a grade point average (GPA) of 3.0 (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 with one semester of each of the following:
 - Biochemistry
 - Introductory Biostatistics
 - Molecular Cellular Biology
 - Genetics or Developmental Biology
- Be an established clinical embryologist/andrologist with at least three years of embryology experience. Submit letters of support from employers indicating level of experience and willingness to allow applicant to perform research projects in their current position.
- Submit three letters of recommendation (https://www.evms.edu/media/evms_public/departments/distance_education/EVMS-GradCAS_Reference-Form2.pdf) (submitted by the reference electronically) from individuals who are acquainted with you academically and/or professionally. References from close friends and family members are not acceptable.
- Letters of Support to Conduct Research

- Submit a letter of support from your employer, lab director or medical director stating that you will be allowed to conduct research where you work as part of the PhD in RCS.
- This letter is a separate letter from the letters of Recommendation.
- Submit a personal essay that will persuade the faculty that your past experiences will provide the foundation for success in graduate school. The statement will also be reviewed as an example of your ability to communicate effectively.
- Curriculum vitae and/or resume

International students, or applicants whose native language is not English, must take the TOEFL exam.

Additional Requirements for International Applicants

In addition to meeting the admissions requirements above, international applicants are required to meet the following:

Foreign Transcripts

- Request a course by course evaluation of all foreign transcripts showing GPA calculation on a four point scale.
- Eastern Virginia Medical School does not endorse any particular evaluating and/or credentialing service. You can use the following agencies:
 - World Education Services (<https://www.wes.org/>)
 - Educational Credential Evaluators (<https://www.ece.org/>)

Translation: If the academic institution that you attended does not issue documents in English, the credentialing agency will require that you submit a word-for-word translation of your transcripts. You can contact University Language Services (<https://www.universitylanguage.com/>) to submit your transcript for translation and instruct them to send the translated transcript to the credentialing agency you choose.

Transcript Evaluation: International students whose native language is not English may contact one of the following credentialing agencies to submit transcripts for official evaluation: WES (<https://www.wes.org/>) or ECE (<https://www.ece.org/>). Instruct the credentialing agency to send the official evaluation (and translation) directly to GradCAS. You must provide both a course-by-course evaluation report along with an overall GPA calculation. Evaluations are mandatory even for transcripts from institutions that report grades in English. This provides EVMS with a U.S. credit equivalency and allows the transcripts to be reviewed accurately. WES and ECE are preferred credentialing services. If you wish to select a company other than these, please contact the program (russelhi@evms.edu) first.

TOEFL: International applicants whose native language is not English must take the TOEFL exam and receive a score as follows: Paper-based test: 550; Computer-based test: 213; iBT exam: 80. Please go to the ETS (<https://www.ets.org/>) website to take the TOEFL exam, and request your TOEFL scores be sent directly to GradCAS. ETS reports scores for two years after the test date. If you have previously taken the TOEFL but the two-year period has expired, the program will accept a personal copy if available.

GradCAS: GradCAS will **ONLY** accept the evaluation report from the credentialing agency. Do not send your foreign transcript to GradCAS.

All other foreign transcript evaluations from the credentialing agency must be sent directly to GradCAS to the following address:

GradCAS Transcript Processing Center
P.O. Box 9217
Watertown, MA 02471

GRE School Code: 5729 TOEFL School Code is B886

Applicant Help Center

- Having trouble accessing the application? The preferred browsers are Google Chrome or Firefox
- Applicant Help Center (https://help.liaisonedu.com/GradCAS_Applicant_Help_Center/)

- If you have questions about your application status, please contact your GradCAS Customer Service Representative at 857.304.2086 or GradCASinfo@liaisonedu.com.

Technical Standards

The abilities and skills candidates and students must possess in order to complete the education and training associated with Reproductive Clinical Science PhD program are referred to as technical standards. These abilities and skills are essential for clinical laboratory practice as an embryologist and/or andrologist.

1.0 Observation Skills Technical Standard

1.01 Demonstrate sufficient attention and accuracy in observation skills (visual, auditory and tactile) in the lecture hall, laboratory and/or online settings. Indicators include, but are not limited to, accurate visualization and discrimination of text, numbers, patterns, graphic illustrations and other imaging texts.

2.0 Communication Skills Technical Standard

2.01 Demonstrate effective communication skills with healthcare professionals and with people of varying cultures, ethnicities and personalities.

2.02 Indicators include, but are not limited to, these examples:

1. Clear, efficient and intelligible articulation of spoken English language.
2. Legible, efficient and intelligible written English language.
3. Accurate and efficient English language reading skills.
4. Accurate and efficient, expressive and receptive communication skills.
5. Ability to accurately follow directions (oral and written).

3.0 Critical Reasoning Skills Technical Standard

3.01 Demonstrate critical reasoning skills, including, but not limited to, intellectual, conceptual, integrative and quantitative abilities.

3.02 Indicators include, but are not limited to, these examples:

1. Demonstrate ability to measure, calculate, reason, analyze, integrate and synthesize information.
2. Demonstrate ability to acquire, retain and apply new and learned information.

4.0 Motor And Sensory Function Technical Standard

4.01 Demonstrate sufficient motor and sensory function to perform typical clinical laboratory duties.

4.02 Indicators include, but are not limited to, these examples:

1. Functional and sufficient sensory capacity (visual, auditory and tactile) to use laboratory equipment and perform procedures.
2. Execute motor movements that demonstrate safety and efficiency in the various learning settings (i.e., classroom, online and laboratories).
3. Physical stamina sufficient to complete the online didactic and some laboratory study, which will include prolonged periods of sitting.

5.0 Behavioral And Social Attributes Technical Standard

5.01 Demonstrate the behavioral and social attributes vital to participation in a professional program and service as a practicing laboratory professional.

5.02 Indicators include, but are not limited to, these examples:

1. Possess the emotional health required for full utilization of mental faculties (judgment, orientation, affect and cognition).
2. Ability to develop mature and effective professional relationships with faculty, patients, the public and other members of the healthcare team.

3. Possess personal qualities that facilitate effective therapeutic interactions (compassion, empathy, integrity, honesty, benevolence, confidentiality).
4. Demonstrate impartial motives, attitudes and values in roles, functions and relationships.
5. Ability to monitor and react appropriately to one's own emotional needs and responses.
6. Display appropriate flexibility and adaptability in the face of stress or uncertainty associated with clinical encounters and clinical environments.
7. Compliance with standards, policies and practices set forth in the EVMS Student Handbook (https://www.evms.edu/education/resources/student_policies_handbooks/) and the program handbook.

Curriculum

Course Sequence

<i>Term 1 - Fall</i>		7
RCS 801	Advanced Statistics	
RCS 802	Assist Repro Prac Journal Club	
RCS 803	Comp. Anatomy & Physio of Rep	
<i>Term 2 - Spring</i>		7
RCS 804	Experimental Design	
RCS 805	Advanced Topics IVF	
RCS 806	Developmental Biology	
<i>Term 3 - Summer</i>		4
RCS 815	Dis. Research Proposal Develop	
Course Sequence		
<i>Term 4 - Fall</i>		7
RCS 809	Toxicology and Infertility	
RCS 810	Research Literature Review	
RCS 811	Male Infert. Research Lit.	
<i>Term 5 - Spring</i>		7
RCS 812	Clinical Laboratory Management	
RCS 814	Genetics and Art	
RCS 816	Dissertation Research	
<i>Term 6 - Summer</i>		3
RCS 816	Dissertation Research	
Course Sequence		
<i>Term 7 - Fall</i>		7
RCS 816	Dissertation Research	
RCS 819	The Business of IVF	
<i>Term 8 - Spring</i>		7
RCS 816	Dissertation Research	
Total Credit Hours		49

Add additional course: RCS 816, Dissertation Research, 1 credit hour. Students who do not successfully complete the dissertation requirement will be required to enroll in this extended research/writing course until it is completed. This course can only be repeated a select number of times.