

VU University Amsterdam



Master Program
Cardiovascular
Research



Are you a researcher at heart?

Can you imagine yourself as a scientific researcher in the field of cardiovascular research?

Are you adventurous, an out-of-the-box thinker who is inquisitive and driven to find answers? Then you should consider the two-year Master's degree program in Cardiovascular Research at the VU University Amsterdam of Amsterdam UMC. Here we strive to provide excellent cardiovascular education and prepare master's students for future challenges in the field of cardiovascular research. So send in your application and get started in the dynamic field of cardiovascular research.

A major medical challenge

You probably know someone, maybe even someone close to you, who has suffered from a heart attack, a stroke or vascular complications, for instance as a result of diabetes. Cardiovascular disease is the leading cause of death in the Western world. In The Netherlands alone, more than 100 people die every day as a result of the various forms of this disease. In the case of coronary artery disease and acute cardiac events, survival has improved tremendously in recent years. However, these patients often develop chronic heart failure which has a poor prognosis. To improve patient outcome, more scientific research is needed, focusing on prevention, pathogenesis, diagnosis and therapy. With this master's degree you will be equipped to meet one of the major medical challenges of the 21st century.



General information

Unique and small scale

The master's program in Cardiovascular Research at the VU University Amsterdam is the only one of its kind in Europe. The program is designed to provide you with the tools and knowledge to become the next generation of scientists unraveling causes of cardiovascular disease and developing novel diagnostic and therapeutic modalities. The Cardiovascular Research Master has been developed by passionate clinical and preclinical scientists who are actively working in the field. Enrollment is limited to 20 students ensuring you will receive personal guidance from the best researchers in the field.

Curriculum

In the first year, you learn all about the cardiovascular field, including the pathophysiology of the heart, the circulation and the clinical aspects of cardiovascular diseases and its consequences for peripheral organs. In the second year, you will be able to focus on what really interests you and what the subject of your major internship will be.

VU University Amsterdam has connections with several renowned research institutes around the world, so you may find yourself at one of these top locations.





Nature of the program

Two-year international program

The master's program in Cardiovascular Research is a two-year international program, in which practical learning is paramount. There are six compulsory courses and several optional courses. In addition to these courses, there are two internships and a literature review.

Compulsory courses of the program include:

September	Heart and Circulation
October	Cardiac Disease
November	Diabetes and Vascular Disease
December	From Personalized Medicine to Advanced Imaging
January	Biostatistics
January - February	Writing a Research Proposal
Throughout the program	Academic Core

For the Minor Internship, students will carry out research at the Amsterdam UMC or at one of our partner institutes in Amsterdam. During the Major Internship, students will conduct research and be trained in important academic skills to prepare them for a career in medical science. Throughout the program, students can rely on the supervision of researchers who are experts in the field.

The Academic Core is a component of the Master program which is designed to prepare students for the transition from student to scientist. During this course, students will learn academic elements such as writing a CV, skills required for a job application, presenting in English, visit a career event and participate in a conference. The academic skills are all related to a future career in scientific research or outside academia.

Optional courses

Students are free to choose from several optional courses, including Cardiac Development, Life Cell Imaging, Biobusiness, Laboratory Animals (Article 9) and Biomedical Proteomics. Students can also take optional courses at other faculties and universities, both in the Netherlands and abroad.

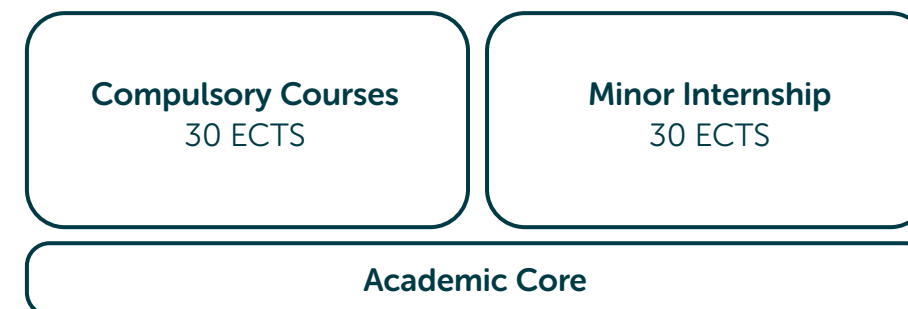
Career paths

Over half of the master's students start working on their PhD in the first few months after graduating. Due to the versatile master's program, other employers, such as policy makers, have also shown interest in our alumni. There are many other possible career paths including jobs in large pharmaceutical or biotech companies as well as teaching. Five years after the start of the program, approximately 90% of all the graduating students have a job within or outside academia.

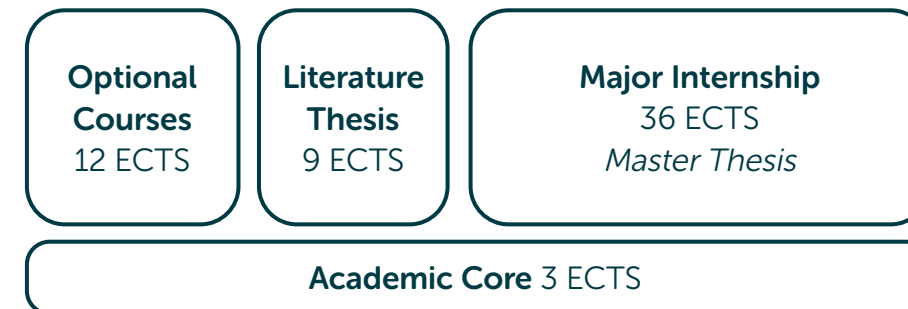


Overview ECTS

Year 1



Year 2





For both of my internships, I was able to perform clinical research at the department of Anesthesiology and the Nephrology department. I worked in the OR with patients undergoing cardiac surgery and on the ward with living kidney donors. We implemented a new clinical study during my final internship. Both departments were great teams to be part of. The experiences I had, were very valuable for deciding on what my next future step will be.

Student experience:
Margot Venhuizen

I really like the diversity in pre-clinical and clinical education of this master program. The clinical approach gives me the possibility to do clinical research as well. Thereby, I still got the view and knowledge of someone with biomedical background. Therefore, I am able to understand most parts of pre-clinical research which makes it attainable for me to make a meaningful connection between the lab and the clinic.

Student experience:
Luuk Hopman



In this master, I as a student, had a big window of opportunities for noticing all kinds of cardiovascular research and getting in contact with the right expert in the field that was in my interest. Besides, I think the small group of students made room for more personalized and intense education than a regular programs.

Student experience:
Laween Uthman

Are you interested in Cardiovascular disease and doing patient-oriented research?



Do you have a Bachelor's degree in Biomedical Sciences or related Life Sciences?



Does the idea of working in a multidisciplinary environment appeal to you?



Do you enjoy working with people who challenge each other to attain the best results?



If your answer is yes, then the VU University Amsterdam is definitely **looking for you!**

Admission requirements

- A Bio-medically or Life Sciences oriented Bachelor's degree
- English language proficiency requirements
- Basic knowledge of Cardiovascular Anatomy, Physiology and Pathology
- Preferably a GPA of 3.5 (Dutch grading system: 7.5) or higher in the final year of the Bachelor
- Preferably an A grade (Dutch grading system: 8) for the Bachelor thesis
- Pass the Admission Assessment test of the program

For detailed information about the program, admission and application, check our website:

<https://med.vu.nl/en/Programs/Master-Cardiovascular-Research>

Admission procedure



To be part of the Master program in Cardiovascular Research at the VU University Amsterdam, positive completion of the selection procedure is required.

1. Complete an admission request through Studielink
2. Complete your application in VUnet
3. Upload all required documents
 - Proof of a valid Bachelor's degree
 - Transcript of records
 - Proof of the English language proficiency requirements (check requirements on program website)
 - CV
 - Motivation letter
 - Two reference letters (preferably one from the supervisor of the Bachelor thesis)
4. Register for the assessment test and participate

Contact

Program coordinator

Master programs

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Further information at:

<https://med.vu.nl/en/>

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