

## **Biomedical oriented Science major (“pre-med programme”) update April 2025**

The Biomedical oriented Science major at UCU (labelled as “pre-med programme”) will enable you to apply for selected Medical Masters programs in the Netherlands. Examples are the Selective Utrecht Medical Master (SUMMA) program at the University Medical Centre in Utrecht (see below) and other so-called pre-master (zij-instroom) Medical Master programs in e.g. Leiden, Amsterdam, Nijmegen, Groningen or a selective research master (Arts-Klinisch Onderzoeker) in Maastricht (see below). Special or selected Medical Master programs that specifically tailor for students with a Biomedical science oriented Bachelor degree (like the ‘pre-med programme’) outside the Netherlands are quite rare. There is a program in Oxford and also Cambridge, however, these programmes are very contested and expensive (and they mostly look for students that have already some affiliated work experience within the medical field and not so much directly from a Bachelor education and a very high GPA is required). For full Medical Master programs (6-7 years) there are more possibilities, however, entry requirements vary, and you will need to pass an entry test even before applying (e.g. MCAT in the USA).

### **UCU application**

The requirements for application to UCU can be found at: <https://www.uu.nl/en/organisation/university-college-utrecht/how-to-apply/degree-students/admission-procedure-for-degree-students>

### **Biomedical oriented Science major at UCU (labelled as “pre-med programme”)**

If you wish to follow a biomedical oriented programme at UCU (labelled as “pre-med programme”), you will basically need high school background in biology (preferably HL), chemistry (preferably HL) and mathematics (at least SL), physics helps but is not absolute required.

The “pre-med programme” will cover subjects in cell biology, physiology, immunology and pharmacology. You will come across many specific pathways and diseases that will be discussed from various focus points. These include the above subjects but also linking conditions to genetics, socio-cultural, and economic factors that impact individual and societal health and wellbeing. Practical experience will be provided e.g. during lab courses on histology, anatomy, and pathology, visiting research groups, patient encounters in the UMC Utrecht etc.

**Please refer to the accompanying schedule for all the courses in the biological and life sciences field, including the ‘pre-med’ disciplines.**

### **Lab courses**

UCSCIMEDL2 Human anatomy, macroscopically and microscopically

This module consists of gross anatomy and microscopic anatomy. Human anatomy will be dealt with, both in models and in actual human preparations and cells and tissues will be illustrated by using microscopic preparations.

UCSCIMEDL3 Human Anatomy Pathology

This module consists of anatomic studies combined with pathology, its classification and mechanisms and human material will be shown both macroscopically and microscopically.

## **Medical Master programs**

### **Selective Utrecht Medical Master (SUMMA) program**

We have a Selective Utrecht Medical Master (SUMMA) program at the University Medical Centre Utrecht, a specifically tailored Medical Master program for our UCU “pre-med” students.

UCU students who pursue the “pre-med programme” with the intention to apply for SUMMA are encouraged to follow courses in other fields than those of biology, chemistry or life sciences because that will often enhance their potential to enter a medical master program in the Netherlands. The SUMMA program is interested in students who have shown an interest in a broad range of topics so the courses that you follow during your bachelor program should not be restricted to bio-medical subjects only.

### **Entry requirements for SUMMA**

The SUMMA program has entry requirements and an application procedure, so our Bachelor program is no guarantee for a SUMMA master program entry, however, in general, our students do well in this regard. The entry requirements for SUMMA is provided on their [website](#). This means that the paths that students take to meet the eligibility criteria might be different. Following the courses within the MED/BIO tracks (eg. MED31, MED 32, BIO 33) and the lab courses within the MED track are in general sufficient to meet the entry requirements. The prerequisites of these courses are chosen in such a way that following these courses students will meet a lot of entry-requirements for SUMMA. Students are however encouraged to design their own paths, as there is some flexibility in the entry requirements.

### **Knowledge-based test in SUMMA**

Next to meeting the entry requirements, students have to sit for a [knowledge based test](#). This exam consists of questions on Anatomy/Physiology (Blood and blood-forming organs, the nervous system, the endocrine system, the cardiovascular system, the respiratory system, the kidneys, the musculoskeletal system, the gastrointestinal system, energy balance, the immune system, and human reproduction) and Pharmacology. This means, that students have to study a few topics by themselves if they have not followed courses on these topics at the UCU.

### **Taalvaardigheidseisen/ Language requirements**

**Please be aware that the SUMMA program is taught in Dutch and thus the following language requirements are stipulated on the website.**

Omdat de voertaal van het patiëntgebonden onderwijs in de opleiding Nederlands is, gelden voor SUMMA taalvaardigheidseisen. Als zowel je secundair onderwijs als de bachelor is behaald aan een niet-Nederlandstalige opleiding moet je aan één van onderstaande kwalificaties voldoen:

- [Staatsexamen Nederlands als tweede taal, programma II \(NT2-II\)](#)  
Nederlands als tweede taal, programma II, afgenomen door de afdeling Exameninstellingen van Dienst Uitvoering Onderwijs (DUO). We raden je aan om je zo snel mogelijk in te schrijven.
- [Certificaat Nederlands als Vreemde Taal](#)  
'Educatief Professioneel' (voorheen PAT) of 'Educatief Startbekwaam' (voorheen PTHO).

### **SUMMA tech**

SUMMA tech in general does not require extra preparations in advance as the SUMMA program directors are looking for a diverse student body and the Tech components are offered during the SUMMA program.

### **Physics and Maths Recommendations for potential SUMMA-Tech Students**

Students interested in following the SUMMA-Tech are recommended to take UCSCIMAT11 Calculus and UCSCIPHY13 Wave Phenomena in Nature. These courses are Box C subjects (calculus, algebra, mechanics, electromagnetism) as listed in the SUMMA requirements. A maximum of 20 EC Box C subjects can be counted to the 90 EC required by SUMMA on biomedical / biotechnical subjects.

In case a student wants to complete more category C courses, possible relevant options at UCU are:

- UCSCIPHY21 Electrodynamics or
- UCSCIMAT22 Mathematical Modelling: Networks.

**Other so-called pre-master (zij-instroom) Medical Master programs in the Netherlands**, e.g. in Leiden, Amsterdam, Nijmegen, Groningen, or the selective research master (Arts-Klinisch Onderzoeker) in Maastricht for which you must apply as well. Please refer to the following information website.  
<http://geneeskundestuderen.org/zij-instroom-geneeskunde/>

All these Medical Master programs provide an accelerated program that usually takes about 4 years of study, similar to the SUMMA program.

Amsterdam UVA (Shakelprogramma)

<https://www.uva.nl/programmas/schakelprogramma/geneeskunde/geneeskunde.html>

Amsterdam VU (ZIGMA)

<https://vu.nl/nl/onderwijs/master/zij-instroomprogramma-geneeskunde-zigma>

UMC Groningen

<https://www.rug.nl/umcg/education/geneeskunde/pre-master/>

Leiden University

<https://www.universiteitleiden.nl/onderwijs/opleidingen/master/geneeskunde/toelating-en-aanmelding/pre-master-geneeskunde>

Maastricht University

<https://www.maastrichtuniversity.nl/nl/onderwijs/master/master-arts-klinisch-onderzoeker>

Radboud University Nijmegen

<https://www.ru.nl/opleidingen/pre-masters/premaster-geneeskunde>

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