For Scientists and Physicians

Master Online Advanced Oncology

Unique curriculum preparing for leadership tasks in oncology

Study part-time – team-up internationally!
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Master Online Advanced Oncology
For Excellence in Cancer Care Worldwide

There is a growing global demand for academic continuing education of oncologists and scientists comprising – besides extensive clinical skills in various fields of oncology – aspects of patient management, standardization of treatment procedures as well as expertise in the performance of clinical trials and cooperation with international companies. Ulm University has established a unique study program addressing these needs.

Prof. Dr. Thomas Wirth
Dean of the Medical Faculty,
Ulm University

The Master Online Study Program Advanced Oncology adds to the international visibility of our faculty and it helps to create an international network of experts around the world.

Prof. Dr. Hartmut Döhner
Vice-President for Medicine, Ulm University
Spokesman Executive Board,
Comprehensive Cancer Center Ulm

The Comprehensive Cancer Center in Ulm is one out of eleven Centers of Excellence in oncology in Germany. This Master Online Program is an important pillar in its educational program.
What We Offer

- **International 2-year-part-time Master degree**
  The Master Online Study Program Advanced Oncology is taught in English and brings together colleagues from all over the world.

- **Unique combination of multidisciplinary contents**
  The curriculum includes interdisciplinary oncology, clinical research and advanced therapies of site-specific cancers and operative practice in health management.

- **Intensive supervision and support-concept**
  We are providing individual support to integrate the study workload into your daily working life. For this purpose, individual contact persons will be at your disposal to answer administrative, organizational, technical and lecture-related questions.

- **Self-paced distance learning and blended-learning concept**
  The modulated time schedule allows a timely and locally flexible learning. Traditional e-learning concepts are combined with online learning events and face-to-face seminars in order to support problem-based and collaborative learning.

- **High scientific and clinical quality**
  Renowned international experts and organizations grant a high quality e-learning program.

- **Additional certificates**
  Participants will receive credit points of continuing medical education by the State Chamber of Physicians (LÄK in Germany) and the European Accreditation Council for Continuing Medical Education (EACCME) which are recognized by the American Medical Association (AMA) towards the Physicians Recognition Award (PRA).

- **Education in an exclusive learning atmosphere**
  Online and attendance seminars in small groups in a close discourse with the experts is our understanding of modern, learner-oriented postgraduate education. Reisensburg Castle, the venue for our attendance seminars, provides the perfect retreat for a close get-together of scholars and lecturers.

- **Additional skill acquisition**
  Professional presentation workshop and communication training.
What You Gain

Successful completion of the program

- Leads to the academic degree of Master of Science (MSc)
- Qualifies for leading positions in hospitals, cancer centers, the pharmaceutical industry and academic or health care companies
- Provides the opportunity to become part of an international network of professionals and leaders in the field of oncology

The program is tailored for graduates in human medicine (practicing oncologists) or natural sciences (scientists of the pharmaceutical industry, research institutions) with professional experience in oncology (for details on eligibility requirements see page 14).
Attendance Seminars

Face-to-Face Seminars
Participation in the five attendance seminars is a mandatory prerequisite for successful completion of the study program. While the first seminar includes formal enrollment, the other four seminars include the module exams which also require personal appearance.

Four out of five attendance seminars will be held at the university’s own seminar centres “Villa Eberhardt” and “Reisensburg Castle”. The 4th seminar is incorporated in the ESO-ESMO Masterclass.

Besides scientific workshops, live-lectures and soft skill training, the attendance seminars provide the platform for creating an international cooperation and networks to improve cancer care worldwide.

Contents
- Scientific seminars and workshops
- Exchange among students
- Building up contacts and networks
- Visit of cooperation partners
- Communication and presentation workshops
- Exams
- Module evaluation
Online Phases

E-Learning Platform
The four online modules are divided into separate courses. Approximately 150 experts in the field of oncology and management share their knowledge in about 130 learning units. The e-learning approach offers timely and locally flexible learning, since lectures may be viewed any time at convenience simply by entering the learning platform. This allows self-paced studying in order to combine work, family and advanced training. The structure of each unit is consistent and provides everything the student needs to learn the unit contents successfully. Tools to communicate with the lecturers complete the didactical concept of our learning philosophy.

Contents
- High quality video lectures
  - enriched with interactive elements
  - continuously evaluated and updated
- Review articles summarize the most important facts
- Additional papers, research reports and links for in-depth study
- Self-assessment tests
- Communication tools
- Lecture evaluation
The modular composition of the postgraduate study program is pursuing a networked competency development in diagnosis and treatment, in the performance of clinical trials as well as in leadership tasks in cancer centers. Integrated attendance seminars allow the exchange with renowned international experts. Furthermore, joint activities with international professional societies, organizations and experts support the quality of this endeavor. In this sense, contractual cooperation has been established, with the European School of Oncology (ESO), Italy.
Module 2: Interdisciplinary Oncology

The curriculum of Module 2 is divided into four courses:

Course 2.1 **Cellular and molecular biology of cancer** is focusing on recent key aspects of translational research. The units vary from gene structure to cancer stem cells representing the broad spectrum of knowledge in cancerogenesis.

Course 2.2 **Diagnostics** is summarizing all modern tools used for work-up of a cancer patient. Benefits and limitations of imaging techniques up to molecular diagnostics are being discussed by means of case-based scenarios.

Course 2.3 **Principles of Therapy** is highlighting treatment options in oncology ranging from surgery to targeted therapy. Interdisciplinary cooperation among the different competencies is being elaborated.

Course 2.4 **Epidemiology** is giving an overview on cancer statistics and cancer etiology. Epidemiologic methods are being discussed and will establish a direct connection to the subsequent semester focusing on **Clinical Research**.
Module 3: Clinical Research

The curriculum of Module 3 is divided into four courses:

Course 3.1 **Biometry** focuses on key aspects of biostatistics and their application to the field of oncology. The units comprise study types, statistical tests, survival analysis, and sample size estimation for clinical trials in oncology.

Course 3.2 The **Clinical trials** course delivers the toolbox for setting up, running and publishing a clinical trial. Aspects like quality assurance and transfer of study results into clinical practice are being discussed by examples from the CCCU-based clinical trials center.

Course 3.3 The **Ethical Aspects** course deals with ethical principles for informed consent, biobanking, study participation, collaboration between stakeholders with a different background (academic/industry). Equally important is the unit on the prevention and the detection of scientific misconduct and fraud.

Course 3.4 **Project Management** provides basics in project management with case scenarios and problem-solving strategies from the pharmaceutical industry.
Module 4: Advanced Therapies & Integrated Concepts

The curriculum of Module 4 is divided into three courses:

Course 4.1 Clinical Oncology I presents the current state of art and recent advances in the treatment of gynecological, urologic and gastrointestinal malignancies. Aspects of surgical intervention, radiotherapy and chemotherapy as well as targeted therapies are being discussed.

Course 4.2 Clinical Oncology II presents the current state of art and recent advances in the treatment of – among others – thoracic, hematological and pediatric malignancies. Aspects of surgical intervention, radiotherapy and chemotherapy as well as targeted therapies for different disease entities are being discussed by experts in the field.

Course 4.3 The Integrated Therapeutic Concepts course provides multidisciplinary approaches completing a patient-centered treatment approach. Topics include psycho-oncology, supportive care, complementary medicine and palliative medicine. In addition, on-site training in oncology-based communication scenarios is offered.
Module 5: Management

The curriculum of Module 5 is divided into four courses:

Course 5.1 Business Basics provides an introduction to planning and strategic as well as human resources management for oncologists. Equally important is the introduction into accounting, finance and investment.

Course 5.2 Health Care System introduces to different health systems and aspects of compensation for health services.

Course 5.3 Management of processes, entities and people provides tools for assessing and improving leadership in oncology. This comprises classical topics such as practice and hospital management as well as behavioral economics.

Course 5.4 Quality control trains oncologists how to assess the quality of care from various perspectives. These analyses open opportunities for future improvements of cancer care.
Master’s Thesis

Within their Master’s Thesis students will:
- perform an original scientific project in the field of Interdisciplinary Oncology, Clinical Research, Advanced Therapies and Integrated Concepts or Management
- summarize the data in a written report in the context of published data
- critically discuss published data related to their project in a scientific presentation

Prerequisites to start with the thesis:
- participation in the first attendance seminar and
- successful passing of the examination on Interdisciplinary Oncology

Period from the assignment of the topic to the submission:
The Master’s thesis takes 6 months from admission date to closing date. An extension of this period up to three months may be granted by the subject-specific board of examiners upon a reasoned request.

Workload / Credits:
450 hours (15 ECTS)
Application and Admission

- **Step 1: Eligibility Requirements**
  1) Bachelor degree in medicine or an equivalent degree at the level of – in general – four years of studies and **at least one year** of professional experience in oncology.

  Bachelor degree in natural sciences\(^1\) or engineering\(^2\) or an equivalent degree at the level of – in general – four years of studies **and at least two years** of professional experience in oncology.

  2) Sufficient command of the English language (e.g. TOEFL, IELTS or work experience in an English-speaking country). These requirements do not apply if the applicant is a native speaker or if the Bachelor degree program completed was taught in English.

  3) Upgrade of your ranking
  The ranking among the other applicants (based on the overall grade point average of your Bachelor degree) will upgraded if one of the following criteria is applicable and supported by documents

- **a) At least three years of professional experience in oncology**
- **b) Completion of an additional qualification in oncology** (e.g. specialist training board certification)
- **c) Publications with a cumulative impact factor >10**
- **d) At least one year of relevant occupational experience in a foreign country**
- **e) Leadership experience (chair of department, oncology practice / center or research group)**
- **f) Third party funds raised independently**

- **Step 2: Online Application System and Deadline**
  Applications are to be submitted via our Online Application System. For access and guidance see [www.masteroncology.de](http://www.masteroncology.de).
  The application period for enrollment in the program in October opens on December 1st and closes on April 15th of the corresponding year.

\(^1\) E.g biology, biochemistry, biophycics, chemistry
\(^2\) E.g biomedical engineering, biotechnology
**Step 3: Interview**

The best ranking applicants will be invited for a video interview (via Skype). In general, the interview appointments are scheduled in June/July. Selected applicants will be invited about two weeks before.

The video interview is conducted in English by the program's Selection Committee. The key aspects of occupational practice, expertise in oncology, additional qualifications as well as motivation for the study program will be discussed and evaluated. The evaluation also includes conduct during the interview in regard to manner of expression, command of the English language, the applicant's approach to explaining problems and conclusiveness of argumentation. The interview generally lasts 20 min.

**Tuition Fee***

The tuition fee is currently 4,875 € per semester. This includes all costs for the modules, tutorial guidance, online lectures, Master's thesis and exams. Payment is due upon receipt of payment notification which is issued in connection with admission / re-registration for each semester. Upon application, payment by installments may be granted in exceptional cases.

**Administrative Fee***

An additional fee of currently 170 € per semester will be charged for administrative expenses and the student union.

**Attendance Seminar Expenses**

Travel, living and accommodation costs during the attendance seminars are not included in the fee.

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**Step 4: Admission**

According to the Selection Committee's decision, Ulm University will provide the selected candidates with a formal admission notification. Acceptance of the seat in the program – within a given period of time – is mandatory. Otherwise admission is forfeited.

* Fees are subject to change. Current fees see on www.masteroncology.de
Students’ Statements

Lona Gaugler, scientist – Switzerland

I joined the program because I think I have a strong molecular scientific background in oncology and it’s a field that interests me a lot. But obviously there is the clinical aspect that needs to come into play. Currently, I work in the pharmaceutical industry, so I work with many people from the clinics. It’s really important for me to get the view of the whole topic of cancer. I’m very grateful to be surrounded by all these people who have so much more experience than I do in that topic.

Sergiu Brenister, surgeon – Moldova

I mostly enjoyed the course on molecular biology, because it really shows the direction of correct treatment of patients.
Blaise Nkengoum, pathologist – Cameroon

Cancer is responsible for increasing deaths worldwide – especially in developing countries, including my country. In any case, I will intensify my research in this area and I am glad about the many good contents and the important contacts.

Zeinab Elsayed, radiotherapist – Egypt

I found every aspect I need to modify my knowledge to date. I finished my MD 10 years ago, and this program covers areas like management and clinical research which are beneficial for my work.
Cooperating Partners

The Comprehensive Cancer Center Ulm (CCCU)
In July 2006, Ulm University Medical Center and the Medical Faculty of Ulm University Ulm founded the Comprehensive Cancer Center Ulm (CCCU). It originated from the Tumorzentrum Ulm which was established in 1984, initially supported by a program of the Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung, BMBF). This transition was considered necessary in order to meet the demands of modern oncology, i.e. truly multidisciplinary patient care, interactive and innovative clinical and laboratory research, high clinical trials activity, qualified training for health professionals, community service and outreach, as well as cancer prevention.

Since 2009 the CCCU has been funded as an interdisciplinary oncology center of excellence by the German Cancer Aid (»Deutsche Krebshilfe«).

European School of Oncology
The European School of Oncology (ESO) was established in 1982 as a non-profit organisation exclusively dedicated to increasing the knowledge of health professionals in cancer care. The Master Online Study Program Advanced Oncology is an ESO-Recommended Program.
Our Scientific Conference Centers

**Villa Eberhardt**
The representative former residence of an Ulm family of manufacturers is the seminar centre of the University of Ulm. This little gem on the Safranberg in Ulm offers the participants the perfect setting for seminars, exams and network discussions. The associated park invites you to take walks during the conference breaks, and accommodation in the nearby Ulm hotels is organised in consultation with the students.

**Reisensburg Castle**
The picturesque castle and conference center »Reisensburg Castle« near Ulm is the venue for the classroom seminars 3 and 5 of the participants of the Master Online Advanced Oncology. Reisensburg Castle is not open to the public, students enjoy the exclusive privacy of a historic site.
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