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HESSEN INTERNATIONAL SUMMER UNIVERSITY

**INNOVATION AND REGULATION
IN PHARMA & MEDTECH**

JULY 20 – AUGUST 17, 2019

EXPAND YOUR HORIZONS AND EARN ACADEMIC CREDITS
AT JUSTUS LIEBIG UNIVERSITY GIESSEN

Hessen:ISU
International Summer Universities
in Hessen, Germany



www.isu-hessen.de



Prof. Dr. Joybrato Mukherjee © Jonas Ratermann 2015

WELCOME

Welcome to Justus Liebig University in Giessen, Germany. Justus Liebig University provides a vibrant, international academic environment with 28,000 students and 5,500 members of staff from more than 120 countries.

Justus Liebig University looks back on a rich history of more than 400 years. Founded in 1607, the university today has eleven faculties covering the complete spectrum of social sciences and life sciences. Justus Liebig University is widely recognized for its academic excellence and its welcoming, international research environment.

We are pleased to announce that the Faculty of Law, the Faculty of Economics and Business Studies and the Faculty of Medicine are again joining forces for the 15th Giessen International Summer University in 2019. We would be very happy to welcome you to Giessen to study Innovation and Regulation in Pharma and Medtech in a truly international and interdisciplinary atmosphere.

A handwritten signature in black ink, appearing to read 'Joybrato Mukherjee'.

Prof. Dr. Joybrato Mukherjee
President of Justus Liebig University Giessen

WELCOME TO THE HESSEN INTERNATIONAL SUMMER UNIVERSITY

The Faculty of Law, the Faculty of Economics and Business Studies and the Faculty of Medicine of Justus Liebig University Giessen are looking forward to hosting students from all over the world for the 15th Hessen International Summer University in Giessen, Germany.

The academic part of our program is designed to educate participants in the highly important fields of innovation and regulation in medicine and health care covering economics, incentives and sustainability. The interdisciplinary program addresses undergraduates, postgraduates and young professionals, who have some prior experience or who are aspiring to get a job in the health care sector particularly in the pharmaceutical or medtech industry. Furthermore, it is attractive for people who want to gain some first-hand experiences with the German and European culture. All seminars are taught in English by internationally established academics and practitioners. Moreover, students will attend a mandatory German language course offered at different levels according to the students' proficiency in German language.

The program combines high-quality teaching with a wide range of cultural and social activities. In addition to the academic courses, we offer various field trips: two on-site visits to leading pharma companies, a three-day trip to Berlin and a three-day trip to Brussels; these will add more practical elements to the content learned in class. Students will visit some of the most beautiful places in Germany during these trips. Above all, studying abroad will broaden one's horizon. Participants will gain intercultural knowledge from their interaction with fellow students, and, most importantly, they will spend a great time in an international environment.

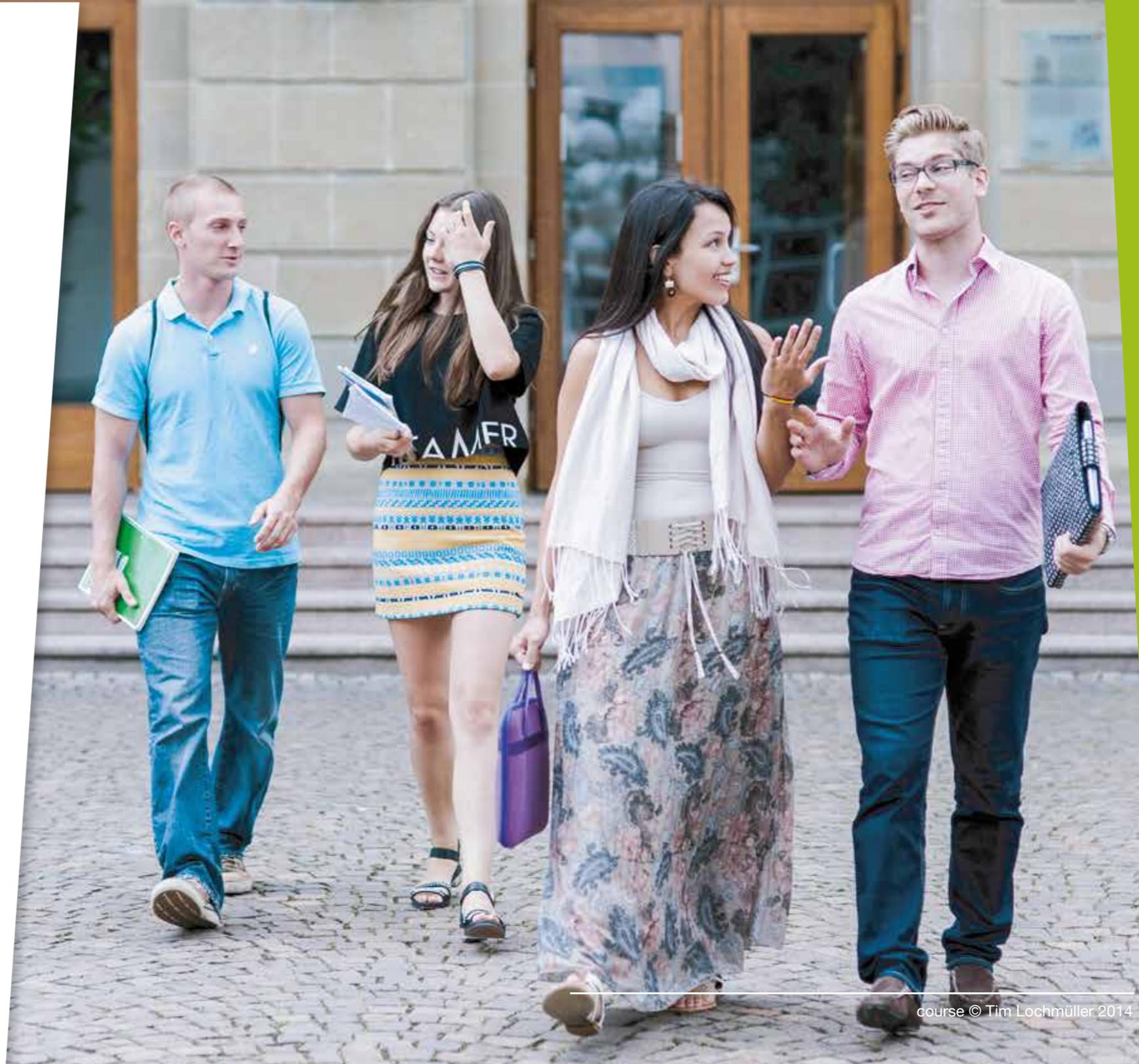
WE LOOK FORWARD TO WELCOMING YOU IN GIESSEN FOR THE HESSEN INTERNATIONAL SUMMER UNIVERSITY – INNOVATION AND REGULATION IN PHARMA & MEDTECH

**PROF. DR.
THILO MARAUHN**
FACULTY OF LAW

**PROF. DR.
JOACHIM KREUDER**
FACULTY OF
MEDICINE

**PROF. DR.
JÜRGEN MECKL**
FACULTY OF
ECONOMICS
AND BUSINESS
STUDIES

**PROF. DR.
CHRISTIAN GISSEL**
FACULTY OF
ECONOMICS
AND BUSINESS
STUDIES



course © Tim Lochmüller 2014



ACADEMIC PROGRAM

HESSEN INTERNATIONAL SUMMER UNIVERSITY

Our academic program combines both theoretical and practical knowledge. After an instruction in a topic including basic ideas as well as working tools, you'll get the chance to discuss with your fellow students and lecturers about the learned subjects.

After the academic courses, the participants will attend German language courses in the afternoon. This course is an integral part of the program.

FACILITY TOURS, EXPERT TALKS AND MUCH MORE

Our business trips allow participants of the International Summer University to receive a deep insight into the work of two leading German companies which are working and doing research in the field of pharma and medtech.

LECTURES AND SEMINARS

ADDRESS THE FOLLOWING TOPICS

Giessen International Summer University offers a multidisciplinary approach to economics, incentives and sustainability of innovation in medicine and health care. Lectures and seminars are taught by internationally established scholars and practitioners. Several study field trips in combination with the German language course provide further knowledge in the areas already covered in class.

The courses are divided into four weeks:

- Economics in Health Care: Linking Health Economics, Innovation and Market Access
- Medical Innovation: Linking Global Health Challenges, Entrepreneurship and Business Practice
- Digitalization and MedTech in Health Care: Linking Digital Solutions and Data Privacy
- Law: Linking Intellectual Property Rights, Regulation of the Health Sector, Human Rights and Ethic Concerns





FIRST WEEK

ECONOMICS IN HEALTH CARE

The first week of our program will introduce you to today's global health challenges and economic principles. You will broaden your knowledge by attending courses in the fields of innovation, health economics, and market access.

One of the first steps for every business is the idea behind it. Nevertheless, not every idea is suitable for transforming it into a service or product, let alone the chance of transforming it into actual profit for a future or already existing business.

You will learn about different techniques and processes to develop ideas for new products and services. You will also gain knowledge to exploit these ideas in order to make the most out of it.

After successful research and development phases, the next step is market access and convincing insurance companies of your therapy's cost-effectiveness in order to achieve a favorable reimbursement agreement. Therefore you get the chance to learn about the specialities of Health Goods, Methods of Evaluation and reasons for Market Failure. The suitability of various regulatory approaches for countries with different economic and epidemiologic conditions will be discussed as well.

SECOND WEEK

MEDICAL INNOVATION

You will broaden your acquired knowledge even more by attending courses in the fields of Medical Innovation. Visionary entrepreneurs will explain you how they develop revolutionary therapeutic innovations in pharma and medtech to address global health challenges.

You will learn about various topics and actors in the field, starting with important medical concepts like Personal Medicine and Genetic Testing and their implications for the health insurance market. Secondly, practitioners will give you an insight into problems, which they face in their daily work routine. Therefore we invited experienced physicians from both the university clinics and private practices.

You are going to learn about the development of drugs in the pharmaceutical industry, concentrating on the different stages from having an idea for a new drug all the way to clinical studies. Among others, this will include: hit optimization; lead optimization; different stages in pre-clinical research, from the idea to the development of a compound to cure specific diseases, to the synthesis of the compound; pharmacology as well as toxicology; and clinical studies including its four phases.





THIRD WEEK

DIGITALIZATION AND MEDTECH IN HEALTH CARE

The third week of our program will dive into the field of Digitalization and MedTech in health care. Beside drug innovation, MedTech and particularly Digitalization are seen as the most important fields to cure diseases or even prevent them. Beside the opportunity to fight diseases, Digitalization permits to make procedures in health care facilities more efficient.

To give you an insight into the vast field of MedTech and Digitalization, you will learn about the new field of Xenotransplantation as an example for innovative MedTech. In addition to that, you will learn about the impact of Digitalization in health care facilities.

Despite the multiple beneficial applications of Digitalization you will discuss about the barriers, risks and concerns about Data Privacy. For a suitable use of Digitalization a vast data basis is needed. Often particularly sensible health data are collected, saved and processed. Health care facilities and IT companies have to guarantee that the data is safe and protected from third-parties.

FOURTH WEEK

LAW AND ETHIC CONCERNS

At the beginning of this week, you will learn more about the regulation of the health sector, especially about the regulation of medical drugs. The registration of drugs, also known as product licensing, is an essential element of drug regulation. All medical drugs must be authorised before they can be put on the market and sold to patients. You will focus on European drug regulation, especially on procedures for approving drugs in Europe but also on comparisons between the U.S. and Europe.

Most of the value of new medicine products lies in the amount of invention, innovation, research, design, and testing. Companies have to invest enormous amounts of money to develop new drugs and medical devices as you will see on our business trips. Therefore, they depend on some kind of legal mechanism to recover their investments. Also companies who have spent a lot of time on planning and exploiting their ideas do not want to see these ideas used by business rivals. Therefore, during this part of the program you will discuss Intellectual Property Rights, such as patent protection which is an incentive for research and development of new medicines. This topic will be linked closely to the curriculum of the first and second part of the program.

Patents themselves and patent law play a big role in almost every company. First of all, you will learn about the basics of Intellectual Property law including historic treaties and agreements to understand how it emerged and adapted. You will explore the rights of patent owners, the duration of patents, the degree of international uniformity and the degree of effectiveness of patents in protecting and commercializing medical inventions.

Another component of the last part will relate Intellectual Property law to the issue of human rights. During the study of the linkage between those fields questions such as 'Can it be considered human if a company does only focus on their return on investment instead of caring for seriously ill people who cannot afford expensive drugs?' will be discussed.





”EXCELLENT SCIENTIFIC STAFF AND EXPERTS“

Why did you choose this program?

As a biomedical engineer, this program provided me with a unique opportunity to study biotechnology, law, and intellectual property together in an international and national context. Germany is also full of rich history and culture, and I furthermore wanted to be in a place where I would have the chance to learn another language.

Was the participation in the Summer School useful for you? What have you gained?

This program was very useful to me. I have gained a better cultural appreciation for more people, as this program allowed me to meet people from all over the world. In addition, the knowledge I gained in biotechnology, law, and intellectual property will be very useful for my future career, as it gave me a new and different perspective.

Any tips for future participants?

Definitely take advantage of all the optional trips and events! Also try to meet and get to know as many people from different places as you. Make sure to explore as much of Germany as you can, as it is an amazing country full of good food, lots of history, and fun!

Please, summarize your experiences and impressions.

Overall, my experience in the ISU program and for Germany in general was fantastic. I've learned so much on new and relevant topics, but I also met a lot of amazing people. Germany was a great country to visit and study in, and I couldn't be happier that I decided to take part in this program.

Nicole deGuzman
USA

”SUPER AWESOME. A MUST-HAVE EXPERIENCE.“

Why did you choose this program?

At a particular stage of my life, I needed to make choices concerning my career and my future. Therefore, I short-listed my ideas, and the matter came down to Biotechnology, Business and Intellectual Property Law. Those are precisely the fields which the ISU program focuses on/mainly consists of. So, in the end, my decision was easy.

Was the participation in the Summer School useful for you? What have you gained?

It was very enlightening. As I was the youngest in the group, it particularly helped me grow up a bit more. I got to know a lot of people that are going to be part of my life, also in the future.

Any tips for future participants?

Come and experience! This programme not only helps you in your career, but also in your life.

Please, summarize your experiences and impressions.

Super awesome. A must-have experience.

Rishi Mishra
India





WHY GIESSEN? BECAUSE OF THE PEOPLE, THE LIFESTYLE AND THE LOCATION.

With around 84,000 inhabitants, Giessen is a lively, vibrant and welcoming city. The large student population shapes Giessen's physical appearance and its artistic and cultural scene, which includes numerous nightlife events. Sophisticated shopping areas, vibrant bars and restaurants, as well as the city theater are popular local attractions. In the summer, Giessen's riverside restaurants and traditional beer gardens are an absolute must visit.

Any place in town can be reached quickly and conveniently, whether by foot or by bus (which is free of charge for Summer School participants). Should you have the urge for big-city life, the financial capital of continental Europe, Frankfurt, is only a 40-minute ride by train. In contrast, should you have the urge for a city with timbered houses, castle and lots of cafés all around the city, Marburg is only a 30-minute ride by train.

Those who wish to take a break from the hustle and bustle can take full advantage of the natural beauty Giessen is known for. The city offers several parks and a botanical garden maintained by the university, which is the oldest botanical garden in Germany. Several lakes nearby are ideal for swimming and water sports. Former monasteries and castles attract tourists from near and far. For example in Badenburg castle you can dine like a knight during the Middle Ages.

WHATEVER YOUR DEFINITION OF A GREAT TIME WILL BE - YOU ARE GOING TO FIND IT IN GIESSEN!

FIELDTRIPS

EXPERIENCE THE VIBRANT CITIES OF GERMANY. ENJOY THE SUMMER WITH FRIENDS FROM ALL OVER THE WORLD.

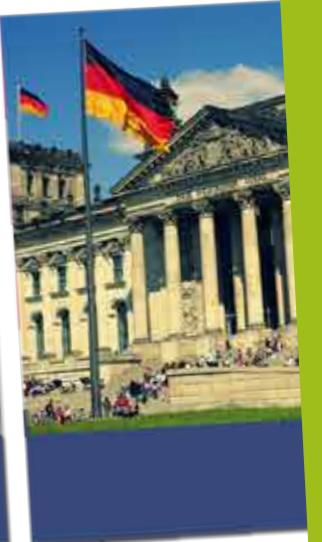
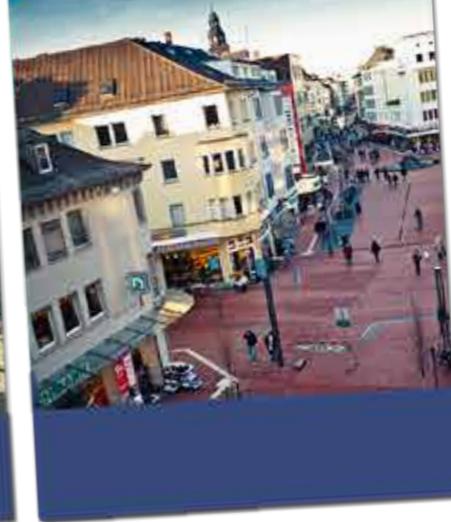
BERLIN FIELD TRIP – INCLUSIVE

The first weekend will take us to Berlin. The trip to Germany's capital city will invite you to have a look behind the scenes of the major political institution in Germany: The German "Bundestag". We will also visit the "Brandenburger Tor" and the remains of the Berlin Wall. A city tour by bus will take you to the most important historical attractions and cultural places all over the city. Of course, there will be time to discover Berlin and its countless attractions on your own. On Sunday, before we arrive back in Giessen, we'll visit "Buchenwald" memorial, the largest German concentration camp memorial.

BRUSSELS FIELD TRIP – INCLUSIVE

On our second weekend, we will be visiting Brussels. The Belgian capital city is often considered the de-facto capital of the European Union. Hence, we will visit the European Parliament, the largest and probably most important elected democratic institution. Also, we will explore the manifold districts of the city of Brussels including all its important sites in a city tour by bus. Furthermore, we will visit a law office in Brussels in close thematic coordination with your courses. On our way back to Giessen we will stop by the fairytale-like castle "Schloss Drachenburg."

The third weekend of our program is your free weekend. You might want to take the chance to visit other European countries. Alternatively, you can take part in our optional field trip which will take you to the famous river Rhine. The Valley around the Rhine is very popular for growing wine. But we will not only experience the beautiful landscape during our trip. You will have some free time to explore the city of Rüdesheim, which is part of the UNESCO World Heritage. We also planned a boat trip for you, where you will be able to see the famous rock constellation called "Loreley". Nowadays the rocks have been adjusted to shipping traffic but in the past many ships capsized at this place. Clemens Brentano a German poet created a mystery around it in one of his poems. A woman called Loreley, is sitting on the rock and sings with a beautiful voice so that the shipmasters are distracted and crash their ships. Towards the end of the trip we will taste some local wine during a typical German dinner called "Abendbrot" in English "bread in the evening".



SCHEDULE

WEEK ONE

SATURDAY	Arrival day
SUNDAY	Welcome Day (City Rally, Welcome Dinner)
MONDAY	Course day
TUESDAY	Course day, Sports Day
WEDNESDAY	Course day
THURSDAY	Course day, departure to Berlin
FRIDAY	Berlin, City Tour by bus, Bundestag, visit to a law office
SATURDAY	Berlin, free day to explore the city
SUNDAY	Visit the „Buchenwald“ memorial

WEEK TWO

MONDAY	Course day
TUESDAY	Course day, Campus Summer BBQ Party
WEDNESDAY	Course day, Study and Research at JLU
THURSDAY	Course day, departure to Brussels
FRIDAY	Brussels, City Tour by bus, European Parliament, European Commission
SATURDAY	Brussels, free day to explore the city
SUNDAY	Visit Schloss Drachenburg, departure to Giessen

WEEK THREE

MONDAY	Business trip
TUESDAY	Course day, Tuesday Night Out
WEDNESDAY	Course day
THURSDAY	Course day
FRIDAY	Business trip (EMBL)
SATURDAY	Free day (optional: Rhine Valley Field Trip)
SUNDAY	Free day

WEEK FOUR

MONDAY	Course day
TUESDAY	Course day, Tuesday Night Out
WEDNESDAY	Course day
THURSDAY	Course day
FRIDAY	Final Test, German Language Test Official Closing Ceremony and Award of Certificates of Participation
SATURDAY	Departure day

NOTE CHECK OUR WEBSITE FOR THE LATEST VERSION.

WWW.ISU-GIESSEN.DE/PROGRAM/



BASIC INFORMATION

PROGRAM DATE

July 20 - August 17, 2019

TOPICS

- Economics in Health Care: Linking Health Economics, Innovation and Market Access
- Medical Innovation: Linking Global Health Challenges, Entrepreneurship and business practice
- Digitalization and MedTech in Health care: Linking Digital Solutions and Data Privacy
- Law: Linking Intellectual Property Rights, Regulation of the Health Sector, Human Rights and Ethic Concerns
- German language course

CREDITS

6 ECTS credits for successfully passing the academic program
3 ECTS credit for the successfully passing the language courses

INCLUSIVE

- All courses including material and a supplementary reading lists
- Accommodation in shared bed rooms (hotel, one bathroom) incl. breakfast
- Health, accident and liability insurance
- Free public transport within Giessen
- Free Internet Access (WiFi hotel and on campus)

FIELD TRIPS

- 2 four-day field trips (Berlin and Brussels)
- 2 business trips to leading pharma companies
- Day trip to the Rhine River (optional)
- Social Events (City Rally, Sports Day, Campus Summer BBQ Party)

WHO CAN APPLY

The program is designed for undergraduate students, graduate students and young professionals who have some prior experience or who are aspiring to get a job in the pharma or medtech industry. *The deadline for an application is May 31st 2019. Apply online via application.intlaw-giessen.de*

FEES	INTERNATIONAL STUDENTS	EARLY BIRD FEE
APPLICATION FEE	250 EURO	REDUCTION OF 250€ (IF YOU REGISTER BEFORE FEB 28TH 2019)
PROGRAM-FEE	1650 EURO	
TOTAL	1900 EURO	



WWW.ISU-GIESSEN.DE

CONTACT DETAILS AND REGISTRATION

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SUMMER 2019, GIESSEN, GERMANY

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