International Summer Program (ISP)

Track A: Engineering

Track B: German and European Studies

Track C: Business and Entrepreneurship

Course Catalog 2024

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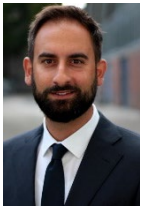

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Contents

German Language Course

(Compulsory class for all tracks)

Lecturers

N.N.

Time

03.06.2024 - 19.07.2024

Mondays	10:00 – 13:00
Wednesdays	16:00 – 19:00

Location

Mondays	Emil-Figge-Straße 59, Seminarraum 1 (IBZ)
Wednesdays	Emil-Figge-Straße 61, Raum 201

Course Description

For beginners of German we will offer the German A1.1 course. This class focuses on the introduction to the German language, simple oral and written communication, and basic German grammar. The following competences are imparted: Students who pass the course successfully will be able to provide information about themselves and their country of origin; to greet and to say goodbye; to talk about their family; to express their condition, preferences and resentments; to talk about their hobbies and leisure time; to make and understand time designations; to name prices and quantities; to name things of everyday life (groceries, furniture); to phrase simple questions; to talk about simple activities and events in the past tense.

The textbook ”Schritte plus: Deutsch als Fremdsprache” (1 through 6 according to the course level) will be used in class.

Credits

The German language course meets twice a week throughout the 7 weeks of the lecture period. This corresponds to 4.5 ECTS credit points or 3 credit hours.

Exam

There will be a final written or oral exam.

Website

https://cms.zhb.tu-dortmund.de/fs2/Anmeldung/index.php#kurscontent

Germany – Politics, Culture and Society

(Compulsory Class for Tracks A&C, Elective Class for Track B)

Lecturers

Iris-Aya Laemmerhirt

Time

Tba (two Saturdays)

Location

Tba

Course Materials

Information regarding the organization of the course and course materials can be found in Moodle/Website.

Aim of Lecture

The German culture course "Germany – Politics, Culture and Society" is designed to introduce students to Germany's cultural landscapes and political life. You will gain insights into your host country's past and present and will be encouraged to contribute your own first-hand experiences to class discussions.

Course Description

The compact seminar covers the following topics:

- General introduction to Germany
- Topic specific workshops on German politics (including short student presentations)
- German history before and after World War II, including reunification (the material includes nonfiction, historical texts and visual material)
- German literature (short overview and some examples)
- German culture (including German food culture, sports, music)
- Migration in Germany: introduction to the topic; discussion of migration including a contemporary German film on the topic
- The Ruhr Area (focus on this specific region, its history and culture)

This course is a mandatory seminar for students who take classes exclusively from Track A – Engineering. If you attend classes from Track B – German and European Studies, you may choose whether to take part in this course. You will meet on two separate days at the beginning and at the end of the program for one day of compact seminar each.

Requirements

Interest in Germany.

Credits

The course will be taught 2 hours/week over a partial semester. This corresponds to 1 hours/semester-week or 1.5 ECTS credits.

Part I:
Track A – Engineering

Chapter 1: Biochemical and Chemical Engineering

1.1. Dynamic Simulation

Lecturers

Prof. Dr. Hannsjörg Freund

Time

Mondays 15:00 – 18:00

Location

CT Zentralbereich – PC-Pool 1

Aim of Lecture

The aim of the course is that the student obtains an understanding how dynamic process simulators work and is able to formulate, solve and analyze problems in advanced dynamic process simulators.

Lecture Content

The course dynamic simulation teaches the theoretical and practical use of advanced dynamic process simulators. The software used is gPROMS, a commercial equation-oriented modeling and optimization framework, which is widely used in the chemical industry. In order to teach the students the handling and implementation in gPROMS, the following topics are dealt with:

- Basics of numerical mathematics:
    - Types of dynamic systems
    - Numerical stability
    - Numerical solution of ODEs
- Basics of gPROMS
    - Implementation of basic models
    - Solving basic models in gPROMS
- Object oriented programming in gPROMS
    - Theory of object oriented programming
    - Realization in gPROMS
- Logical conditions and scheduling in gPROMS
- Numerical solutions of partial differential equations
    - Discretization methods
    - Initial and boundary conditions
- Implementation of partial differential equations in gPROMS
- Dynamic optimization
    - Basics of optimization theory
    - Solving of dynamic optimization problems
    - Dynamic optimization of chemical processes in gPROMS

Requirements

The students should be able to derive models of chemical processes and to understand given process models.

Credits

The course will be taught 3 hours/week over a partial semester. This corresponds to 1.5 hours/semester-week or 1.5 ECTS credits.

Exam

Written (computer-based) or oral exam.

Website

https://rec.bci.tu-dortmund.de/lehre/lehrveranstaltungen/sommersemester-2023/dynamic-simulation/ (not updated)

Moodle

t.b.a.

1.2. Logistics of Chemical Production Processes

Lecturers

Prof. Dr. Sergio Lucia Gil

Dr. Christian Sonntag

Time

Lecture:	Thursdays	14:15 – 15:45
Tutorial:	Fridays	8:00 – 9:45

Note: Lecture and Tutorial might switch from time to time. The exact date will be available on Moodle.

Location

Thursdays:	Hörsaalgebäude I – HS5
Fridays:	Chemie – HS2

Aim of Lecture

The students obtain an overview of supply chain management and planning, scheduling problems in the chemical industry, techniques and tools for modeling as well as simulation and optimization. These include discrete event simulation, equation-based modeling, mixed-integer linear programming, heuristic optimization methods, and constraint programming.

The students will be enabled to identify logistic problems, to select suitable tools and techniques for simulation and optimization as well as to apply them to real-world problems.

Lecture Content

1. Introduction to batch processes and supply chain management
2. Discrete event simulation: problem abstraction, classification, queuing policies, random number generation, probability distributions
3. Scheduling: Gantt charts, terminology and generic problem representation, machine environments, state task networks (STN), resource task networks (RTN), classification of batch scheduling problems, uniform discrete and non-uniform continuous time representation, campaign and moving horizon scheduling
4. Linear programming: properties of linear programs, graphical method, simplex method
5. Mixed Integer Linear Programming:
   Integer and binary variables, branch and bound algorithm, concept of relaxation, concept of convex hull, search algorithms
6. Modeling: modeling with binary variables, contingent decisions, big "M" constraints, case-study: production of expandable polystyrene (EPS)
7. Heuristic optimization: exact and heuristic optimization, heuristic algorithms, meta heuristic algorithms, classification of search techniques
8. Constraint Programming: Modeling and solving scheduling problems with constraint programming techniques

Tutorial and Laboratory Contents

1. Paper-based supply chain management game Bullwhip effect, decisions with limited information
2. Discrete event simulation with INOSIM Professional (computer-based): recipe driven simulation of a paint factory
3. Production scheduling with Schedule Pro and Lekin (computer-based): dispatching rules, impact of
4. Sequence-dependent changeovers, campaign scheduling
5. Mixed Integer Linear Programming (paper-based): modeling and solution of MILPs, graphical solution, branch and bound algorithm
6. Modeling and Optimization with AIMMS (computer-based): building of graphical user interface, economic optimization of EPS production
7. Scheduling with constraint programming

Requirements

Higher mathematics course.

Credits

The course will be taught 4 hours/week over a partial semester. This corresponds to 2 hours/semester-week or 3 ECTS credits.

Exam

Written or oral final exam.

Recommended Reading

S. Engell: Logistic Optimization of Chemical Production Processes, Wiley-VCH 2008.

T.F. Edgar, D.M. Himmelblau, L.S. Lasdon: Optimization of Chemical Processes, McGraw Hill 2001.

Website

https://pas.bci.tu-dortmund.de/teaching/teaching-offer/logistics-of-chemical-production-processes/

Moodle

t.b.a

1.3. Drops, Bubbles and Films

Lecturers

Prof. Dr.-Ing. Norbert Kockmann

Time

Wednesdays	10:00 – 14:00
Single Appointment Wednesday	tba

Location

CT Geschossbau III – G3 – 5.25

Aim of Lecture

Methods of generation, application and basics of discrete multiphase systems

Lecture Content

Basics and multiple methods of drops and bubbles formation in liquid/gas and liquid/liquid systems, atomization and gas dispersing systems, application of spray processes. Basics of forming, behavior and application of liquid films. Measurement methods to characterize these systems.

Requirements

Basic knowledge in Fluid Mechanics.

Tutorials

Calculation of typical applications in process engineering.

Laboratory

Demonstration of capillary flow and two phase columns.

Credits

The course will be taught 4 hours/week over a partial semester. This corresponds to 2 hours/semester-week or 3 ECTS credits.

Exam

Written or oral final exam.

Recommended Reading

All slides presented, will be given to attendants of the course together with recommendations of the literature.

Website

https://ad.bci.tu-dortmund.de/teaching/lectures-and-exercises/summer-term/bubbles-and-drops-in-chemical-and-biochemical-processes/

Moodle

t.b.a.

1.4. Essentials of Micro Process Engineering

Lecturers

Prof. Dr.-Ing. Norbert Kockmann

Time

Thursdays 12:00 – 15:30

Location

CT Geschossbau III – G3 – 5.25

Lecture Content

Micro-structured apparatuses allow intensified processes with excellent heat transfer, fast mixing and continuous process control. Applications in chemistry, analytics, process engineering and energy technology are covered. Special attention is given to single-phase and multi-phase flows, micromixers, mass and heat transfer, micro heat exchangers, microcontactors, chemical reactions, micro-reactors, continuous production processes and various applications. Manufacturing and design, application, laboratory and miniplant equipment, process intensification.

Requirements

Basic knowledge in Fluid Mechanics.

Credits

The course will be taught 4 hours/week over a partial semester. This corresponds to 2 hours/semester-week or 3 ECTS credits.

Exam

Written or oral final exam.

Recommended Reading

All slides presented, will be given to attendants of the course together with recommendations of the literature.

Website

https://ad.bci.tu-dortmund.de/teaching/lectures-and-exercises/summer-term/essentials-of-micro-process-engineering/

Moodle

t.b.a.

1.5. Fundamentals of Synthetic Biology

Lecturers

Prof. Dr. Markus Nett

Time

Tuesdays 16:00 – 18:00

+ 7*2 hours of recorded videos

Location

Hörsaalgebäude II – HS4

Lecture Content

Synthetic biology is a young scientific field that seeks to rationally engineer biological systems using approaches and methods common to well established engineering disciplines. In the last 15 years, researchers turned genes and other genetic elements into programmable parts with predictable functions. With these parts, it has become possible to create complex genetic systems that are capable of a wide range of tasks: from the production of sustainable food, fuel and therapeutic drugs to the development of medical diagnostics and treatment tools. This course introduces the basic concepts and techniques of synthetic biology.

When the ISP begins, already 7 lectures will be hold. However, they are recorded and posted online, so you will be able to watch them during or prior to the ISP. The topics are separated from each other, so they are not relevant for later lectures.

Requirements

Basic knowledge of genetic and biotechnological engineering.

Credits

The course will be taught 2 hours/week over a full semester. This corresponds to 3 ECTS credits.

Exam

Written

Moodle

https://moodle.tu-dortmund.de/enrol/index.php?id=39491

Chapter 2: Automation and Robotics

2.1. Data-Based Dynamic Modeling

Lecturers

Prof. Dr.-Ing. Sebastian Engell

Prof. Dr. Sergio Lucia Gil

Time

Lecture	Wednesdays	10:00 – 12:00
Tutorial	Thursdays	15:45 – 17:15

Location

Wednesdays	Hörsaalgebäude I – HS5
Thursdays	CT Zentralbereich – SR ZE 07/PC Pool 3

Aim of Lecture

- Concepts of models, which can be identified from data
- Graphical approaches for system identification from step responses
- System identification using optimization (Black-Box Models)
- Judging the quality and the limitations of data-based models
- Theory and basic calculations of the z-transformation

The students can identify the dominant dynamics of a process from step responses and can apply modern methods and algorithms to identify the parameters of linear process models from measured data. The students know the concept of the z-transformation. They

know the structure of nonlinear black box models and can judge the quality and the limitations of data-based models.

Requirements

The students should know basic concept of the Laplace-transformation and transfer functions.

Lecture Content

This lecture deals with different linear and non-linear black-box models.

The identification of the parameters of these models is the first topic, beginning with the identification of simple models from step responses. The goal here is to find a model of a system by looking at its step response. Stable or unstable systems, systems with over- and/or undershoot or oscillating systems can be modeled by simple transfer functions in the Laplace-domain. Methods like Kupfmüller, Schwarze or Strejc can be applied to given step responses. The identifiability of poles and zeros of transfer functions also depends on their position in the complex plane.

The next types of models, which are covered in this lecture, are linear transfer functions in the (sampled) z-domain. An introduction to sampling and problems which arise from sampling are discussed (e.g. Shannon theorem). The z-transformation is introduced and calculation rules e.g. for inverse transformations are discussed and applied. The relation between transfer functions in the s- and z-domains (position of the poles, transformation) is discussed.

An important class of black-box models is described as prediction error methods. The theory behind ARX, ARMAX and OE models is explained in detail. Different methods for the numerical parameter estimation (linear and nonlinear numerical least squares

estimation) are discussed. The capability of representing a systems behavior by such models is highly dependent on the model order. Accuracy and overfitting are discussed.

The last part is about modeling using nonlinear black box models (perceptron neural nets, radial-basis-function nets). Concepts of training and the usage of neural networks as dynamic models are introduced. The quality of neural net models is discussed.

Tutorials

The lectures are supported by tutorials, in which the concepts are applied. Some of the tutorials are computer-based and are carried out in a computer lab. The tutorial contents are listed below:

- Step response identification (Methods of Kupfmüller, Strejc and Schwarze)
- Computer lab: step response identification (validation of graphical methods / Optimization-based step response identification (with MATLAB))
- Discrete-time systems / z-Transform
- Computer lab: ARX parameter estimation (with MATLAB)
- Computer lab: prediction error methods (with MATLAB)
- Frequency response estimation from data using DFT (with MATLAB)
- Non-linear black box modeling

Credits

The course will be taught 4 hours/week over a partial semester. This corresponds to 2 hours/semester-week or 2.5 ECTS credits.

Exam

The students are graded with an assignment (15%) and one written or oral exam (85%). The assignment is an application example, which has to be solved using a computer. The solution has to be described and submitted.

Website

https://pas.bci.tu-dortmund.de/teaching/teaching-offer/data-based-dynamic-modeling/

Moodle

t.b.a.

2.2. Controller Design Fundamentals

Lecturers

Prof. Dr.-Ing. Sebastian Engell

Time

Lecture: tba

Tutorial: tba

Location

tba

tba

Lecture Content

- Basic tools for the analysis and design of control systems: Stability definitions, frequency response, Nyquist criterion.
- SISO controller design: Relations of time domain and frequency domain responses, controller types, tuning rules for P/I/D-controllers, loop shaping, robustness.
- Stability criteria for feedback systems with static nonlinearities.

Aim of Lecture

The students are able to analyse and to solve industrial single loop controller design problems for plants with predominantly linear dynamics. The students understand the basic trade-offs and limitations of controller performance and are able to choose a suitable controllers and to design them for given process dynamics as well as to analyse the reasons for controller malfunctions.

Requirements

Basic knowledge in single loop controller design for plants with linear dynamics. The concepts of transfer functions should be known.

Credits

The course will be taught 4 hours/week over a partial semester. This corresponds to 2 hours/semester-week or 2.5 ECTS credits.

Exam

Written or oral exam.

Website

https://pas.bci.tu-dortmund.de/teaching/teaching-offer/controller-design-fundamentals/

Chapter 3: Applied Mathematics

3.1. Intensive Course in Statistics for Researchers in Engineering Sciences

Lecturers

Prof. Dr. Markus Pauly

Time

Lecture:	Wednesdays	12:00 – 14:00
	Thursdays	12:00 – 14:00
Tutorial:	Wednesdys	10:00 – 12:00

Location

Wednesdays (10:00-12:00)	CDI/ZHB – 121
Wednesdays (12:00-14:00) & Thursdays	Mathematik - E 27

Aim of Lecture

The course gives an introduction to statistical concepts that are useful for research projects in various fields of application and areas of science.

Lecture Content

The lecture is largely based on the book “Montgomery, D.C. and Runger, G.C. (2007): Applied Statistics and Probability for Engineers, 4th ed., Wiley, New York”.

Table of contents:

Requirements

Except for basic mathematical calculus no prior knowledge is necessary.

Tutorials and Laboratory

The tutorial will be used to practice the course material by solving statistical problems and to further discuss student questions. The statistical computer package R will be introduced for statistical programming and used by the students to analyze small data sets. This includes theoretical tutorials and software labs.

Exam

Written or oral exam.

Credits

The lecture/tutorial will be taught 6 hours/week over a partial semester. This corresponds to 3 hours/semester-week or to 5 ECTS credits.

Recommended Reading

Basics of Probability and Statistics:

- Bain, L.J., Engelhardt, M. (1992): Introduction to Probability and Statistics, Duxbury Press, Pacific Grove.
- Montgomery, D.C. and Runger, G.C. (2007): Applied Statistics and Probability for Engineers, 4th ed., Wiley, New York.
- Fahrmeir, Künstler, Pigeot, and Tutz (2007) Statistik (6th ed.) (in German).

Basics of R:

- Dalgaard, P. (2008): Introductory Statistics with R, 2nd ed., Springer, New York.

- Venables, W.N. and Ripley, B.D. (2002): Modern Applied Statistics with S, 4th ed., Springer, New York.

Chapter 4: Computer Science

4.1. Architecture & Implementation of DBMS

Lecturers

Prof. Dr. Jens Teubner

Roland Kühn

Time

Lectures:	Mondays	8:00 – 10:00
	Wednesdays	8:00 – 10:00
Tutorials	Mondays	12:00 – 14:00
	Tuesdays	08:00 – 10:00

Location

Lectures	tba
Tutorials	Mondays tba
	Tuesdays tba

Course Description

Database systems form the heart of virtually any enterprise application. They manage vast amounts of data, yet allow for fast and efficient search; they handle thousands of updates every second, yet will not trip over problems due to concurrency; and guarantee consistency and data integrity even in the case of catastrophic events (loss of hardware, etc.).

In this course we learn how database systems can provide this service and performance. We will look “under the hoods” and

understand how a database is built internally. We will get to see techniques that allow to construct a system in a scalable and robust manner.

ISP students will attend the second part of the course, in which we will discuss transaction management (concurrency control, two-phase locking); failure tolerance (recovery, ARIES); distributed data management; and database support for special applications (analytics, text search).

Credits

The course will be taught 6 hours/week over a partial semester. This corresponds to 3 hours/semester-week or 4 ECTS credits.

Exam

Written or oral exam.

Website

http://dbis.cs.tu-dortmund.de/cms/de/lehre/ss23/arch-dbms/index.html (not updated yet)

Moodle

t.b.a.

Part II:
Track B – German & European Studies

Chapter 5: Courses for German & European Studies

5.1. The Union at Risk: History and the Future of the European Union

Lecturers

Janina Schäufele

Time

Mondays 16:00 – 19:15 (03.06 - 15.07)

Location

Emil-Figge-Straße 50 - 0.420

Course Description

Since the economic and financial crisis that started in 2008, and especially after the so-called "migration crisis" in 2015 and the BREXIT in 2020, the European Union seems to be in danger. The war in Ukraine and the Covid-19 pandemic appear to be further steps into an uncertain future for the EU. Is the Union at Risk? Using political speeches as well as journalistic and academic research, students will engage in a dialogue with the instructor and each other about the history and future development of the EU.

By discussing different opinions and possible alternative models, students will gain a better understanding of the European Union in the context of an imagined "European identity" since 1945.

Credits

Credits will be awarded on the basis of a presentation and/or an essay/term paper. The course will be taught 2 hours/semester-week which corresponds to 3 ECTS credits.

Website

https://anglistik.kuwi.tu-dortmund.de/current-students/courses/american-studies/the-union-at-risk/

5.2. American Architecture: Visions, Utopia, and Literary Representations in a Transatlantic Context

Lecturers

Berendt-Metzner

Time

Tuesdays 8:30 – 11:45 (04.06 - 16.07)

Location

Emil-Figge-Straße 50 - 0.420

Course Description

”Architecture can be read like any other text – and vice versa” - The course will explore this thesis by looking at and into American architecture from the 19th to the 21st century in a Transatlantic Context. Emphasis will be put on the individual building rather than the planning of urban space.

Is there an American architecture and if so, what makes it specifically American? America’s history is a history of settlement and development and American architec-ture had and has a significant economical, social, political and psychological impact in this process and on the people who inhabit it. From Andrew Jackson Downing’s philosophy of ”the good house that will lead to a good civilization” and Henry Thoreau’s cabin in Walden to Frank Lloyd Wright’s Usonian houses, influential visions and ideas of architecture have created an exciting American cultural narrative. For American participants, the transatlantic perspective will provide a

profound insight into European thinking about America in a key area of modern culture.

With the increase of the climate crisis as well as the economic crises of today, architecture has turned to new forms of living such as tiny houses, earthships, or caravans. We will explore these further by also looking across the Atlantic to make out global trends and solutions.

In this course we will read selected essays on architecture and by architects as well as other literary texts or watch film excerpts representing architecture, buildings, or new forms of living.

Literature will include but not be limited to selected essays and excerpts of texts by Andrew Jackson Downing, Ralph Waldo Emerson, Frank Lloyd Wright and Henry David Thoreau. Selected fictional texts will represent (mostly) existing architecture or explore the lives of famous architects; amongst others, Simon Mawer, The Glass Room, Kelcey Parker – Liliane's Balcony. New forms of living will be explored through the film screening of Nomadland.

Credits

The course will be taught 2 hours/semester-week which corresponds to 3 ECTS credits.

Website

tba

5.3. Coffee & Cafés – A Beverage & Its Cultural Impact

Lecturers

Bernd Eßmann

Time

Thursdays 10:00 – 13:15 (06.06 - 18.07)

Location

Emil-Figge-Straße 50 - 0.420

Course Description

Coffee is a ubiquitous beverage that we usually take for granted without reflecting on the impact it has on our culture(s). We will take a closer look at it, specifically the places that it is frequently – & publicly – consumed in, the cafes. Be those traditional cafés (the coffeehouses in Vienna come to mind) or rather recent developments such as Starbucks. In this course, we will try to find out their function in our culture(s), to find out whether cafes are, as Ray Oldenburg puts it, "hangouts at the heart of a community". We will take a look at the US and Germany; the dialog between Dortmund students and the perspectives of the participants of the International Summer Program will provide valuable insights.

Credits

The course will be taught 2 hours/semester-week which corresponds to 3 ECTS credits.

Website

https://anglistik.kuwi.tu-dortmund.de/current-students/courses/american-studies/coffee-cafes/

5.4. What is "German"? German History and Identity Formation

Lecturers

Janina Schäufele

Time

Thursdays, 16:00 – 19:15 (06.06 - 18.07)

Location

Emil-Figge-Straße 50 - 0.420

Course Description

Germany is a perfect example of how the political construction of nations (imagined communities), borders and discourse shape societies and influence them; for example, through a culture of remembrance.
The book/podcast "Memories of a Nation" serves as a basis for discussion in the course. In addition, using journalistic and scientific articles, students will enter into a dialogue with the instructor and each other regarding the history and culture of the "Germans". Discussing various moments of German history, students will get a better understanding of the alleged "German identity".

Credits

Credits will be awarded on the basis of a presentation and resp. an essay/term paper. The course will be taught 2 hours/semester-week which corresponds to 3 ECTS credits.

Website
https://anglistik.kuwi.tu-dortmund.de/current-students/courses/american-studies/what-is-german/

5.5. No(w) Future?! – Dystopian Worlds Past & Present

Lecturers

Sandra Danneil

Time

Wednesdays 8:30 – 11:45 (05.06. - 16.07)

Location

Emil-Figge-Straße 50 - 0.420

Course Description

Dystopian landscapes have gained momentum whenever a crisis grows rampantly like metastases in a cancerous body. Originally at home in science-fiction literature, each new fictional dystopia echoes the fairly true anxieties of its respective generation. The short fiction genre has always been the generic hotbed countless writers of science-fiction tales, comic books, radio broadcasts, or scripts for film- and TV series have used for their dismantling of worlds. Whereas H.P Lovecraft, John W. Campbell or Richard Matheson created post-apocalyptic scenarios to focus on the toxic impetus of human hubris, biological warfare, and the nuclear age in early- to mid-20th century, contemporary dystopias in film and TV series are characteristically indifferent about what has affected or who is to blame for the sufficient deprivation of human existence. Films like It Comes At Night (2017), Bird Box (2016) or A Quiet Place (2018) leave aside the tech-savvy aspect of earlier SciFi, but emphasize the emotional resonance of drama. In a third category, the gamification trend has sparked a bunch of ego shooting, torture-pornish franchises like The Purge

or Squid Game that equipped their respective social hells with a fair amount of heavenly classicist, neoliberally utopian desires.

The seminar will take you on a journey through a transatlantic literary and visual history of dystopian narratives past and present. Central questions will be what constitutes the horror in the texts? How do these visions affect our understanding of the world in a time when Trump becomes elected president, when wars of aggression are fought in Europa, when Covid-19 becomes an invisible and the global climate change a more and more obvious threat? Although the planned content sounds like anything but fun, we will explore the texts' experimental language, its escapist function, and look for the narratives' sense of hope, their potential optimism, and encouraging irony.

Credits

Credits will be awarded on the basis of podcast group projects and written reflections/ assignments. The course will be taught 2 hours/semester-week which corresponds to 3 ECTS credits.

Moodle

tba

Website

tba

Part III:
Track C –
Entrepreneurship

Chapter 6: Business and Entrepreneurship

6.1. Business Model Innovation

Lecturers

Prof. Dr. Tessa Flatten

Dr. Bastian Kindermann

Time

06.06.2024	10:00-12:00 Uhr
18.06.2024	14:00-18:00 Uhr
09.07.2024:	14:00-18:00 Uhr

Location

P2-05-416

Course Content

In the bachelor seminar Business Model Innovation students get to know the process of business development. In addition to the theoretical teaching of tools for the identification of business ideas, the focus is on practical application. Students develop their own business ideas in teams using the Business Model Canvas and present their results in a final presentation designed to convince potential investors of your idea.

Credits

The course will be taught 8 hours/week over a partial semester. This corresponds to 4 hours/semester-week or 7.5 ECTS credits.

Website

https://tie.wiwi.tu-dortmund.de/en/teaching/summer-term/bmi/

Moodle

Tba