BIOETHICS (BIOE)

BIOE 4010 Introduction to Bioethics
Fall
Mutually Exclusive: BIOE 6010
1 Course Unit

BIOE 4020 Foundations of Bioethics
This course examines the various theoretical approaches to bioethics and critically assesses their underpinnings. Topics to be covered include an examination of various versions of deontological theories, utilitarianism, virtue ethics, principlism, casuistry, feminist ethics, narrative theory, and pragmatism.
Mutually Exclusive: BIOE 6020
1 Course Unit

BIOE 5050 Sex and Bioethics
While the topics of sex and sexuality have a long and storied history in medical culture, they have been especially complex and problematic in the past century. With the creation of distinct sexually-minded medical fields since the late 19th-century including sexology, psychiatry, and hormonal studies, medicine has also occasioned the very categories and labels of the homosexual, the hermaphrodite, the invert, and the nymphomaniac, to name a few. While medical historians and queer theorists have paid almost obsessive attention to these subjects, bioethicists have intervened to a lesser degree and on only a handful of relevant subjects. In this course, we will address the range of historical and theoretical matters that speak to this intersection of bioethics and sex, paying special attention to the health concerns of lesbian, gay, bisexual, trans, queer, and intersex (LGBTQI) persons. Who has sex with whom? What does it mean to pathologize or diagnose such desires? How do we raise the stakes when considering persons who question their sex or who are in sexual transition? And how do such questions reveal the dilemmas of bioethicists at large, not just those related to matters of sex and sexuality? Accordingly, this course will consider a range of historical and contemporary topics which speak to the bioethical dilemmas of the intersection of medicine, sex, and sexuality, including: the gay adolescent, the intersex person, gay-conversion therapies, the prospect of gay gene studies, sex addiction, and blood/organ donation policies in wake of the HIV/AIDS pandemic. Specifically, we will focus on literary sources (poetry, memoirs, diaries, and films) as well as on non-literary accounts (medical texts, bioethical scholarship, legal cases, and historical records) that explore the emotional and somatic aspects of matters related to sex and bioethics.
1 Course Unit

BIOE 5400 Challenging Clinical Ethics: Managing patient/caregiver conflicts through mediation.
The contemporary healthcare system in which patients, families, institutions and a multiplicity of caregivers interact over matters of life and death with legal, ethical, emotional and scientific complexities inherently gives rise to a variety of disputes. Such disputes are frequently highly charged and are often emergent in nature. In recent years, mediation has grown exponentially as a dispute resolution mechanism of choice. Not surprisingly, the success of mediation and a wider understanding of the process, has led to its application in the realm of healthcare disputes with encouraging results. This course will initially provide an overview of classical mediation theory and practice. Students will be introduced to negotiation fundamentals critical to the practice of mediation. Similarities and differences between mediation in the healthcare field, as distinct from other contexts, will be examined. All class members will participate in mediation role-plays designed to simulate disputes of the kind prevalent in healthcare landscape.
Not Offered Every Year
1 Course Unit

BIOE 5450 Mediation Intensive I
Students will be placed in a variety of clinical situations in which they will play the roles of disputants and mediators, with ongoing discussions and critiques of mediator performance. Each student will be videotaped during their mediation to elicit feedback from the group and to catalyze self-criticism. As distinct from the course, BIOE 540: Challenging Clinical Ethics, in which negotiation and mediation theory are taught as a prelude to clinical simulations, this course references the literature solely in relation to problems encountered in the hands-on mediation of specific cases. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5460 Mediation Intensive II
Students will have an immersive experience, learning mediation through role-playing simulations. Note that the format is similar to Mediation Intensive I, but the Mediation Intensive II will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; and receive constructive feedback in a supportive environment. Students will also be required to complete a written research paper. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit
BIOE 5470 Mediation Intensive III
Students will have an immersion experience, learning mediation through role-playing simulations. Note that the format is similar to Mediation Intensive I and II, but med. intensive III will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; and receive constructive feedback in a supportive environment. Students will also be required to complete a written research paper. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5480 Mediation Intensive IV
Students will have an immersion experience, learning mediation through role-playing simulations. Note that the format is similar to earlier mediation intensives but the mediation intensive IV will NOT duplicate simulations. Students in this course will: learn to effectively manage clinical disputes among and between caregivers, patients, and surrogates through mediation; discover how to define problems and assess underlying interests to generate mutually acceptable options; role play in a variety of clinical situations as both disputants and mediators; practice mediation with professional actors; use video-tapes of simulations to improve mediation techniques and strengthen interpersonal skills; receive constructive feedback in a supportive environment. Students may take the mediation intensives in any order; they do not need to be taken from I to IV. Students may take all 4 intensive courses, as the material will not be repeated.
0.5-1 Course Unit

BIOE 5500 Bioethics and Society
This set of courses will deal with bioethical issues in popular culture addressed from a social science perspective. Courses to be offered include: "Sociology of Bioethics," and "Media and the Doctor-Patient Relationship." This is a topics course - for information on the topic currently being offered, please go to the course listing on the Bioethics website: http://www.med.upenn.edu/mb.
Not Offered Every Year
1 Course Unit

BIOE 5510 Race and Bioethics
Much of the mainstream dialogue regarding medicine, technological advances, and healthcare has relied on the premise of fairness and equality. However, this is not the entire story. Many of the advancements we take for granted were produced at the expense of racially marginalized individuals. This course aims to explore those topics and teach bioethics students how to engage with them in a practical way. The course will cover historical bioethical incidents that shaped racially marginalized individuals relationships with healthcare and science. It will also examine bioethics through the lens of racially marginalized peoples. Lastly, it will also cover various approaches to integrating anti-racist principles into the practice of bioethics.
Not Offered Every Year
1 Course Unit

BIOE 5520 Anthropolotical Topics in Bioethics
This set of courses provides an introduction to the use of anthropological methods and approaches to address bioethical issues. Courses might include cross-cultural studies of medicine and doctoring, diversity and the culture of medicine, cross-cultural bioethics. This is a topics course - for information on the topics currently being offered, please go to the course listing on the Bioethics website: https://www.med.upenn.edu/mb.
Not Offered Every Year
1 Course Unit

BIOE 5530 Medicine on the Fringes: the Ethics of Alternative, Experimental, and Do-It-Yourself Treatments
Much bioethics literature focuses on issues in mainstream, established medicine - but what are the ethics of therapies, treatments and techniques utilized outside of common practice? This course begins with a historical exploration of "quack medicine" and medical professionalization. We then explore ethical and regulatory issues regarding complementary and alternative medicine, as well as the ethics of providing experimental, off-label, and placebo treatments. Finally, we will examine how individuals are accessing therapeutic techniques outside of the physician's office, via do-it-yourself medical movements, direct-to-consumer health technologies, and medical tourism.
Not Offered Every Year
1 Course Unit

BIOE 5540 Bioethics and Law
This course will present a broad survey of topics at the intersection of law and bioethics. Much of bioethics deals with topics of public policy, and law is the tool of policy. Areas to be covered will range from an overview of American law making to enforcement mechanisms, topics including FDA regulations, state interventions into beginning and end of life issues, privacy, malpractice, healthcare reform, and international issues, including those related to innovation and access to medicines.
Not Offered Every Year
1 Course Unit

BIOE 5550 Bioethics and Technology: Neuroethics
Neuroethics might well be the most rapidly growing area within bioethics; indeed, in some respects neuroethics has grown as an independent field, with its own journals, professional society and institutional centers. This growth over the past decade is partly attributable to the growth of neuroscience itself and to the challenging philosophical and moral questions it inherently raises. A 2012 Royal Society report, observes that an increasingly mechanistic understanding of the brain raises a host of ethical, legal, and social implications. This has laid the foundation for the emergent field of Neuroethics, which examines ethical issues governing the conceptual and practical developments of neuroscience. Irrespective of their validity, even the claims that modern neuroscience entails the re-examination of complex and sensitive topics like free will, consciousness, identity, and responsibility raises significant ethical issues. As such, neuroethics asks questions that extend beyond the usual umbrella of biomedical ethics. This course will, therefore, consider the new knowledge and ways of learning about the brain from scientific and ethico-legal and social standpoints. We will examine the core themes of neuroethics, including cognitive enhancement, the nature of the self and personhood, neuroimaging and privacy, and the ways that all these themes are brought together in matters affecting national security.
1 Course Unit
BIOE 5560 Evidence in Bioethics and Health Policy
The ability to critically appraise scholarly work is a necessary skill to effectively contribute to bioethics and health policy debates, and for development and implementation of health interventions. The object of this course is to provide students with the skills needed to become fluent in reading and assessment of empirical bioethics and health service research. The course will review and evaluate a wide range of qualitative and quantitative methods utilized in bioethics, health policy, and medical research. Specifically, students will learn the conceptual rational for standard qualitative and quantitative methods, their strengths and weaknesses. At course completion, students should be able to critically evaluate empirical research published in top bioethics, health policy, and medical journals.
Fall
1 Course Unit

BIOE 5570 Disability Bioethics
1 Course Unit

BIOE 5580 Reproductive Health
Whether dealing with personal decisions or public policy, reproductive health matters are almost always controversial and often intractable. It is almost 50 years since the Supreme Court decision Griswold v Connecticut "settled" the right to contraceptives yet the last several years have been marked by increasing legislative action and judicial review of this right. This course will explore the ethical dimensions of reproductive health controversies including: 1) the moral and legal status of the human embryo and fetus in the context of assisted reproduction, embryonic stem cell research and abortion; 2) contraception, including over-the-counter provision of emergency contraception and contraceptives and legislation challenges to contraceptive insurance coverage in the Affordable Care Act; 3) attempts to restrict access to abortion by restricting later term abortion, mandating informed consent and waiting periods, and regulating abortion clinics; 4) maternal-fetal relationship including prenatal testing and the regulation of women's behavior while pregnant; 5) assisted reproduction and 6) global concerns such as sex selective abortion, forced abortion and sterilization and reproductive rights in relation to population dynamics and environmental concerns.
1 Course Unit

BIOE 5590 Speaking For Patients: Ethical Issues in Patient Advocacy
This course examines the role that activism and advocacy play in shaping health care in the United States and abroad. The course combines in-depth exploration of particular case studies–AIDS activism in the 1980s, the billion-dollar breast cancer movement, the anti-vaccine movement--with an analysis of cross-cutting questions and themes. We consider how health advocates contribute to forming personal identities around certain illnesses and conditions, how they mobilize constituents and recruit allies, and how they influence decisions about health policy, research, and practice. We also consider the implications of an increasingly professionalized health advocacy industry and ask how corporate sponsorship has changed the landscape of health activism. In addition, we examine the ethical issues involved in speaking on behalf of others, particularly those (e.g., young children, persons with intellectual disabilities) who cannot speak for themselves.
1 Course Unit

BIOE 5600 Pediatric Ethics
In this course, we will explore the history, conceptual frameworks, and landmark debates of bioethics related to children. We will examine common ethical challenges (e.g., transplantation, critical illness, end of life) when the patient is a child. We will also examine issues unique to children, such as newborn screening, consent vs. assent, the rights and responsibilities of parents, and the role of the courts and the state. We will draw upon theories from moral philosophy, clinical cases, and seminal legal decisions to demonstrate the breadth and complexity of pediatric ethics.
Not Offered Every Year
1 Course Unit

BIOE 5610 Ethics of Science
This Bioethics course will examine ethics as it relates to science.
Not Offered Every Year
1 Course Unit

BIOE 5620 Propaganda
A Bioethics examination of truth and persuasion in health and pandemics.
Not Offered Every Year
1 Course Unit

BIOE 5640 Social Media, Healthcare, and Medical Ethics
In this course, students will examine the conceptual and ethical challenges posed by the use of artificial intelligence, social media, and the 'internet of things' in healthcare contexts. The course will combine both didactics and discussion to engage students on these issues.
Not Offered Every Year
1 Course Unit

BIOE 5650 Rationing & Resource Allocation
You have one liver but three patients awaiting a liver transplant. Who should get the liver? What criteria should be used to select the recipient? Is it fair to give it to an alcoholic? These are some of the questions that arise in the context of rationing and allocating scarce health care resources among particular individuals, and concern what are called micro-allocation decisions. But trade-offs also need to be made at the meso- and macro-level. Budgets of public payers of healthcare, such as governments, and of private ones, such as health plans, are limited: they cannot cover all drugs and services that appear beneficial to patients or physicians. So what services should they provide? Is there a core set of benefits that everyone should be entitled to? If so, by what process should we determine these? How can we make fair decisions, if we know from the outset than not all needs can be met? Using the cases of organs for transplantation, the rationing for vaccines in a flu pandemic, and drug shortages, the course will critically examine alternative theories for allocating scarce resources among individuals. Using both the need to establish priorities for global health aid and to define an essential benefit package for health insurance, the course will critically examine diverse theories for allocation decisions, including cost-effectiveness analysis, age-based rationing and accountability for reasonableness.
Not Offered Every Year
1 Course Unit

BIOE 5660 Personal Responsibility
1 Course Unit
BIOE 5700 Public Health Ethics
When New York City passed a ban on the sale of large sugary drinks, critics denounced the law as an abuse of government power and an attack on personal freedom. “If people want to be fat, let them be fat,” protested one opponent of the law. Though the controversy surrounding the so-called “soda ban” garnered national attention, there is nothing unusual about policies that restrict or shape personal choice in the name of public health. From controls on the sale of certain drugs to healthy eating campaigns, governments regularly take measures to promote healthy behaviors and prevent people from engaging in actions that are harmful to themselves or others. What ethical values justify these sorts of public health inventions and how do they differ from the ethical values that inform clinical care? How far should governments go in limiting individual autonomy in order to achieve public health goals? How should governments and other actors prioritize different public health interventions? This course will explore these and other ethical questions in the context of case studies involving childhood vaccination, infectious disease monitoring and control, safe-injection sites, tobacco control, and other public health efforts.
Not Offered Every Year
1 Course Unit

BIOE 5720 Global Bioethics
According to the WHO, around 30 million people with HIV/AIDS should receive anti-retroviral treatment. But only 10 million do. Drugs containing tenofovir—the standard of care in developed countries are expensive. Stavudine-based treatments are much cheaper but have worse side-effects. Is it ethical to use stavudine-based rather than tenofovir-based treatments in sub-Saharan Africa? Smoking rates have decreased drastically in most developed countries. But they are increasing in many developing countries. Established public health measures are not implemented, and the tobacco industry pursues a range of marketing activities that would be unacceptable in developed countries. As a consequence, global deaths from smoking are expected to increase to 1bn by the end of the 21st century, with 80% of deaths in developing countries. Is industry’s behavior immoral or normal in a global market? ARDS is a disease of premature newborns. Is it ethical to test a new ARDS drug in Bolivia if the drug—if proven to be effective—will be very expensive and accessible only to the richest people in Bolivia and other developing countries? An overarching question that these different cases raise is whether there are universal ethical standards that should apply to all people, or whether regional variations should be acceptable. Universalists typically argue that there must be no double standards, and that people should be treated the same regardless of where they live. Pragmatists raise concerns about moral imperialism, neo-colonialism, or insufficient respect for cultural or other differences. Increasing globalization fuels debates about which of competing sets of moral standards is the right one. Looking at a range of diverse cases including healthcare research, health policy, flu pandemics, family planning, smoking and obesity policy, and genetically modified crops, this course explores controversies in the cross winds of market forces, politics and ethics, and examines the roles and responsibilities of key actors and international policy guidance.
Fall
1 Course Unit

BIOE 5750 Health Care Reform and the Future of the American Health Care System
Under stress from COVID-19, this course provides students with a rigorous understanding of the current American health care system and how it is likely to evolve over the next decade. The course will focus on six topics: 1) the development of the current health care system; 2) challenges of health care costs, quality, and access; 3) lessons of previous attempts to reform the system including the Affordable Care Act (ACA); 4) analysis of current policies regarding provider payment, technology, and electronic health records and how various sectors (e.g. public health and hospitals) are evolving in the current system; 5) impact of COVID-19 on health care delivery and finance, and 6) future megatrends in American health care system. Throughout the course, lessons will integrate basic health economics, history, health policy, and politics to elucidate key principles for understanding the health care system. The course will also examine at least one other country’s health system for comparison. The course will end with a consideration of the long-term outlook for the structure of the US health system and potential reforms.
Fall
Also Offered As: HCMG 8500
0.5,1 Course Unit

BIOE 5780 Bioethics and Human Rights
The constitution of the World Health Organization enshrines “the highest attainable standard of health as a fundamental right of every human being.” If such a right exists, it is far from being realized. Worldwide, over 1 billion people are living in hunger. Every day, 21,000 children die before their fifth birthday of pneumonia, malaria, diarrhea and other diseases. Even wealthy countries are marked by significant health disparities. In the U.S., for instance, infants born to African-American women are 1.5 to 3 times more likely to die than infants born to women of other races. This course explores the moral principles and the political and legal structures that inform a human rights approach to health. What sorts of freedoms (e.g., to bodily integrity) and entitlements (e.g., to accessible and affordable health care) does a right to the highest attainable standard of health entail? If countries cannot ensure their citizens’ right to the highest attainable standard of health, what responsibility does the international community bear for intervening? Should undocumented and irregular migrants have the same access to health care as citizens? Is a human rights approach to health compatible with using the market to allocate health-related goods? Finally, what are the limitations of analyzing health and formulating health policy using a human rights framework?
1 Course Unit

BIOE 5800 Research Ethics
This seminar is intended to give students a broad overview of research ethics and regulation. The students will come out of the class with an understanding of the historical evolution, moral bases and practical application of biomedical research ethics. The course includes reading assignments, lectures, discussions and practical review of research protocols and in-class interviews with researchers and study subjects. Course topics include: history of human subjects protections, regulatory and ethical frameworks for biomedical research, informed consent theory and application, selection of fair research subjects and payment, confidentiality, secondary uses of data and stored tissue, ethics of international research, pediatric and genetic research and conflicts of interest in biomedical research.
Not Offered Every Year
1 Course Unit
**BIOE 5900 Ethics in Mental Healthcare**
Mental healthcare—which includes, but is not limited to, psychiatry, psychology, and clinical social work—is an especially ethically fraught subdiscipline of the larger medical enterprise. Issues range from garden-variety problems related to informed consent, patient capacity, and clinical professionalism to novel issues related to involuntary treatment, research on mentally ill persons, questions about free will and nosological categories. This course will present a survey of these ethical issues by first introducing foundational concepts from ethical theory and the philosophy of psychiatry and mind. Students will be expected to become conversant in several bioethical approaches and methods and be able to use them to critically examine both historical and contemporary questions in mental healthcare and research.
Not Offered Every Year
1 Course Unit

**BIOE 6010 Introduction to Bioethics**
This course is intended to serve as an introduction to the academic field of bioethics. Students will be introduced to classic papers, basic concepts, field history and important legal cases in the field. But rather than being a broad survey course of many content areas in bioethics, this course will examine how bioethical arguments are constructed with the objective of mastering both the critique of bioethical arguments and their construction. Therefore, most importantly, this course serves as a “methods course” for learning the skill of persuasive bioethics argument, i.e., “the art of conversion.” In some of the course sessions, we will focus on the analysis of arguments made by others. In many of the weeks of the course, we will focus on the process of constructing our own, effective bioethical arguments.
Fall
Mutually Exclusive: BIOE 4010
1 Course Unit

**BIOE 6020 Conceptual Foundations in Bioethics**
In this course, students examine the two moral frameworks – deontology and consequentialism – that individuals use to make decisions about right and wrong both in their personal life and in their professional life. These two moral frameworks provide the foundation for bioethical analysis. Understanding these two moral frameworks not only enables one to understand one’s own moral perspective, but also provides the tools to be able to understand ethical arguments made by others. The theory of deontology and consequentialism are supplemented by applications of these frameworks in the bioethical literature. Additionally, students are introduced to the three theoretical contributions to moral analysis created internally in the field of bioethics: casuistry, narrative theory, and principlism.
Spring
Mutually Exclusive: BIOE 4020
1 Course Unit

**BIOE 6030 Clinical Ethics**
In this course, we will explore paradigmatic clinical ethics debates spanning the life course. Using an interdisciplinary approach, we will consider some of the challenges in clinical decision-making for and with patients, such as assessing patient capacity, deciding for others, rationing at the bedside, and requests for assistance in dying. We will also examine hospital policies related to triage and allocation of scarce medical resources, including ventilators, vaccines, and organs. We will draw upon theories from moral philosophy, legal cases, and contemporaneous reports related to the COVID-19 pandemic to demonstrate the live ethical challenges of clinical practice today.
Not Offered Every Year
1 Course Unit

**BIOE 6050 Mentored Research I**
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 6060 Mentored Research II**
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 6070 Mentored Research III**
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 6080 Mentored Research IV**
This course gives postdoctoral students the opportunity to work with a faculty mentor for one semester. The student chooses a specialized topic in Bioethics and identifies a problem to which they apply research and draw some conclusion. The faculty mentor assesses and submits a grade for this work. This is often resulting in a publishable quality paper.
Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 7010 MBE/MSME Proseminar**
This course will provide an opportunity to engage, at an advanced level, with contemporary controversies in bioethics. Each week, we will read and discuss a mix of conceptual and empirical papers and cases.
Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 7470 Contemporary Research Issues in Social, Cognitive and Affective Neuroscience**
This course is intended to take you from a textbook-level acquaintance with psychology and neuroscience to critical engagement with the primary literature, through lectures, discussion and short written assignments. You will learn to extract, from the dense and detail-laden pages of a journal article, its contribution to the “big picture” of human neuroscience. You will also learn to recognize problematic research practices when they arise, and to analyze and communicate about the strengths and weaknesses of research articles.
Spring
Also Offered As: PSYC 7470
1 Course Unit

**BIOE 9900 Mentored Research I**
0 Course Units

**BIOE 9901 Mentored Research II**
0 Course Units

**BIOE 9902 Mentored Research III**
0 Course Units
**BIOE 9960 Master of Bioethics Capstone**
This course serves the final MBE project. This course requires students to work with faculty to produce original research that is of publishable quality. Past students have published in Nature, Science, and other prominent journals. This course is only open to students in the Master of Bioethics program.

Fall, Spring, and Summer Terms
1 Course Unit

**BIOE 9990 Master of Bioethics Independent Study**
This course serves the MBE Independent Study. Directed reading course on a topic not covered in our standard courses. WRITTEN REQUIREMENT: negotiated with advisor but there needs to be some written output – similar to regular class. Student creates a syllabus Purpose: To learn a new topic of bioethics. Example Topics: Pediatric ethics, Transplant ethics, End of life, Jewish/religion bioethics. Examples of a Independent Study: Compare/Contrast of 2 positions in the field and then decide which position you choose. A response paper for weeks readings Penn 2 page response papers for different

Fall, Spring, and Summer Terms
1 Course Unit