PHILOSOPHY

The philosophy program is offered in the department of arts, languages and philosophy.

The study of philosophy emphasizes the understanding of ideas, the capacity to identify assumptions, and the ability to gain insights into problems and puzzles. Central to philosophy is the application of rigorous thinking to the fundamental issues of reality, knowledge, and value.

Because rigorous thinking is not restricted to any one academic area, philosophical interests are wide ranging. All types of questions are considered: do we have freewill or are all our actions caused? Does God exist and have a determinable nature? How do we tell the difference between what's morally right and wrong? What is thinking and can animals or machines think? How does our nature influence our behavior and creative activity? What is the interrelationship between technological development and human values? etc.

Philosophy touches on nearly all fields of endeavor and a philosophical education is very flexible. With the help of advisors, students can design their curriculum to match their own special interests. Philosophy is also an excellent pre-professional degree.

Bachelor of Science Philosophy

A minimum of 120 credit hours is required for a bachelor of science degree in philosophy, and a grade point average of 2.0 must be obtained. These requirements for the B.S. are in addition to credit received for basic ROTC.

The B.S. in philosophy degree requires the following:

1. ENGLISH 1120 (entering students will normally take ENGLISH 1120 within their first year of study.) (3 hours)

2. Sciences. A total of 24 hours in biological, physical (chemistry, geology, and physics), and mathematical (mathematics, statistics, computer science, and information science and technology) sciences is required. A course from each of the biological and physical sciences is required. Students have to take two math or statistics courses; both must be at the level of college algebra or higher. At least one hour of lab coursework is required. Students may count up to 12 hours of engineering courses, at the discretion of the major advisor. Also, students may count up to 3 hours from the following list, but which may not be used to satisfy another requirement: History of science and technology classes (HISTORY 2510, HISTORY 3510, and HISTORY 3530), PHILOS 4345, or PHILOS 3254 (24 hours)

3. Social Sciences. A total of 15 hours in social sciences is required. At least one course from two of the four areas must be taken: economics, sociology/anthropology, history/political science, and psychology. Six (6) hours from the biological, physical, and mathematical science, as well as engineering, not already used for the science requirement, may be substituted for 3 hours of social sciences; this substitution is only permitted once, unless allowed at the discretion of the major advisor. (15 hours)

4. Humanities. A total of 12 hours in humanities other than philosophy is required. Courses may be taken in literature, foreign/modern languages, speech and media studies, art, music, or theater. Three (3) hours from history not used for the social science requirement, and not

HISTORY 1300 or HISTORY 1310, may be used to fulfill this requirement. (12 hours)

5. Two (2) Communication Intensive courses are required; waiving and substitutions are at the discretion of the student's advisor.

6. Minor: A minor will be selected from any discipline other than the major with approval of the major advisor. A total of at least 15 hours is required for the minor, but may include courses which also satisfy other requirements. At least nine hours must be beyond the introductory level.

7. Basic ROTC may be elected in the freshman and sophomore years, but is not creditable toward the B.S. in philosophy degree. Six credit hours of advanced ROTC may be credited toward this degree.

8. Elective Credits: In consultation with her/his advisor, each student will elect sufficient additional courses to complete a minimum of 120 credit hours which may include MATH 1120 or MATH 1140 and MATH 1160.

9. Philosophy: A total of at least 30 hours of philosophy courses is required. This is to include PHILOS 1105, PHILOS 1115, and at least 12 hours at the 4000-level, although substitutions may be permitted at the discretion of the major advisor. All philosophy work must accumulate to at least a 2.0 grade point average.

Ethics Minor

To qualify, all students must take 15 hours of course work from the following list of which at least 6 hours are from the 4000-level:

PHILOS 1105	Self and World: Introduction To Philosophy	3
PHILOS 1115	Logic and Reasoning: An Introduction	3
PHILOS 1130	How Should I Live? An Introduction to Ethics	3
PHILOS 1175	Religion and the Idea of God: Diverse Perspectives	3
PHILOS 3223	Bioethics	3
PHILOS 3225	Engineering Ethics	3
PHILOS 3235	Business Ethics	3
PHILOS 4335	Philosophy Of Religion	3
PHILOS 4340	From Activism to Zoos: Issues in Social Ethics	3
PHILOS 4350	Environmental Ethics	3
PHILOS 4360	Who Should Rule and Why? Debates in Political Philosophy	3
PHILOS 4368	Law and Ethics in E-Commerce	3

Philosophy Minor

1. A student with a minor in philosophy must meet the following requirements:
   A. Twelve hours in Philosophy course beyond PHILOS 1105 (PHILOS 1105 is a prerequisite to a minor in philosophy).
   B. Six of the twelve hours must be completed in philosophy courses numbered 4000 or above.

2. A student should declare his or her intention to minor in philosophy by his or her junior year.

3. A member of the philosophy staff will act as the student's minor advisor. The student and his or her minor advisor will plan a course of study to meet the specific interests and needs of the student.

Philosophy of Technology Minor

To qualify, all students must take 15 hours of course work in the following areas of philosophy, political science and history. Nine or more of these hours will need to be in philosophy.

Mandatory:		
PHILOS 1115	Logic and Reasoning: An Introduction	3
At least two of the following, one of which must be a philosophy class:		
PHILOS 4345	Philosophy Of Science	3
PHILOS 4320	Minds And Machines	3
HISTORY 4550	Architecture, Technology and Society; 1750 to Present	3
Additional courses from:		
PHILOS 1105	Self and World: Introduction To Philosophy	3
BIO SCI 1163	Biotechnology in Film	3
PHILOS 3223	Bioethics	3
HISTORY 2510	History of Technology	3
HISTORY 3510	Twentieth Century Technology And Society	3

Logic and the Philosophical Foundations of STEM

How can we tell what makes a scientific theory *true*? How do experimental results and observations serve as evidence for a theory or law? Indeed, what *are* theories and laws? While it's easy to make appeals to something called "the scientific method," the reality is much more complex. The certificate in Logic and the Philosophical Foundations of STEM will provide students with a working grasp of the basic intellectual framework of modern science, mathematics, and engineering. For those who want to learn more about the very nature of the modern scientific enterprise, this program provides a chance to understand their conceptual, historical, and epistemological foundations.

Students may elect to not only develop their formal skills in the logic and reasoning that allow for the development of scientific theories, but also to go beyond the formal dimensions of science and interrogate the ways in which science has developed historically, and what that tells us about its structure.

The abilities and base of knowledge provided by this certificate can serve as a fascinating supplement to the study of the natural and human sciences, and signal to potential employers not only advanced reasoning skills but a curiosity and intellectual energy that can be applied in a wide variety of areas.

REQUIRED COURSES:		
PHILOS 1115	Logic and Reasoning: An Introduction	3
PHILOS 3254	Symbolic Logic in Argumentation	3
A further six (6) credits can be chosen from:		
PHILOS 4320	Minds And Machines	3
PHILOS 4325	Who Knows What? Knowledge, Truth, and Justification	3
PHILOS 4345	Philosophy Of Science	3
HISTORY 3530	History of Science	3

Professional Ethics and Moral Reasoning

This certificate signifies a commitment to moral leadership.

Professionals are granted a great deal of autonomy, respect, and power in their workplaces as compared to other sorts of employees. And, as we all know, with great power comes great responsibility. With these sorts of privileges, professionals often find themselves in a position of having to make difficult decisions on their own, as well as for others, whether directly or through policy. And while many professionals will find themselves armed with corporate guidelines or professional codes of conduct to guide one, these alone are not sufficient. Because some – if not all – decisions are ethical, or have an ethical dimension.

Pursuing this certificate will help one understand how to answer the question "What should I do?" in an ethical manner. Required courses in professional or "applied" ethics will familiarize students with the types of cases of ethical decision-making that they will likely encounter in professional life, and courses in normative or moral theory will strengthen their skills in moral reasoning, allowing them to adapt to new and changing situations.

REQUIREMENTS:		
PHILOS 1130	How Should I Live? An Introduction to Ethics	3
3 further credits from:		
PHILOS 3223	Bioethics	3
PHILOS 3225	Engineering Ethics	3
PHILOS 3235	Business Ethics	3
6 further credits (excluding courses taken to meet above requirements) from:		
PHILOS 3223	Bioethics	3
PHILOS 3225	Engineering Ethics	3
PHILOS 3235	Business Ethics	3
PHILOS 4340	From Activism to Zoos: Issues in Social Ethics	3
PHILOS 4350	Environmental Ethics	3
PHILOS 4360	Who Should Rule and Why? Debates in Political Philosophy	3
PHILOS 4368	Law and Ethics in E-Commerce	3

Technology, Philosophy, and Ethical Futures

This certificate is designed to help make one an informed citizen, a reflective human being, and a potential difference-maker.

We live in a technological world, with rapid developments in emerging nano-, bio-, and information and communications technology taking place every day. But the very speed of these change can make it difficult to see how we are affected by them. How do new technologies impact our environments, our economies, our lived experiences, and our very selves? How can we, as users, cope with them? Perhaps even more importantly, what sorts of obligations and responsibilities do engineers and technicians, as makers, have to make sure they are safe, healthy, or liberating? Finally, how do we, as persons, understand ourselves as users, makers, and human beings?

These are precisely the sorts of questions that the Certificate in Technology, Philosophy, and Ethical Futures will help one address. Pursuing this course of study will familiarize students not only with the dilemmas, challenges, and opportunities that new technologies present but with the conceptual tools to navigate them, which will serve them well both in industry and in personal life.

REQUIREMENTS:

Required Capstone Course:		
PHILOS 4554	Technology, Ethics, and Philosophy	3
3 credits from:		
PHILOS 1105	Self and World: Introduction To Philosophy	3
PHILOS 1130	How Should I Live? An Introduction to Ethics	3
6 credits from:		
PHILOS 3225	Engineering Ethics	3
PHILOS 4320	Minds And Machines	3
PHILOS 4350	Environmental Ethics	3
PHILOS 4665	Creating Future Cities	3

PSYCH 4710	Human Factors	3
PSYCH 4720	Psychology of Social Technology	3
HISTORY 3510	Twentieth Century Technology And Society	3
POL SCI 4320	The Politics of Innovation	3

Shane Epting, Assistant Professor
PHD University of North Texas

Darin Finke, Associate Teaching Professor
PHD University of Missouri

Michael Peterson, Assistant Professor
PHD DePaul University

Ross Reed, Lecturer
PHD Loyola University

PHILOS 1001 Special Topics (LEC 0.0-6.0)
This course is designed to give the department an opportunity to test a new course. Variable titles.

PHILOS 1105 Self and World: Introduction To Philosophy (LEC 3.0)
What is real? What is human being? How can we know any of these things? This course is a survey of the major approaches to philosophical problems, especially those of the nature of reality, human nature, and conduct. Students will both be introduced to the study of philosophy and develop skills in creative inquiry and critical reasoning. Prerequisites: Entrance requirements.
PHILOS 1105 - MOTR PHIL 100: Introduction to Philosophy

PHILOS 1110 Practical Reasoning (LEC 3.0)
An introduction to the study of non-formal reasoning. The course examines the subtle ways that the form in which information is presented can color the way that information is understood. Prerequisite: Entrance requirements.

PHILOS 1115 Logic and Reasoning: An Introduction (LEC 3.0)
Beliefs should be supported by reasons. But are these reasons good enough? How could one know? In this course, students will learn the basic rules of both formal and symbolic logic, including types of argumentation, methods of reasoning, valid reasoning, inductive and deductive reasoning as used in the sciences and in communication in general. Prerequisite: Entrance requirements.
PHILOS 1115 - MOTR PHIL 101: Introduction to Logic

PHILOS 1130 How Should I Live? An Introduction to Ethics (LEC 3.0)
What should we do? How should I live? We confront these sorts of questions all the time. In this course we will get a grasp on the moral theories that seek to answer them, by exploring a complex and rich tradition in philosophical thought, from the Ancient Greeks through contemporary thought. No previous exposure to philosophy necessary.
PHILOS 1130 - MOTR PHIL 102: Introduction to Ethics

PHILOS 1175 Religion and the Idea of God: Diverse Perspectives (LEC 3.0)
A comparison of the philosophic ideas and foundations of the major Eastern and Western religions. Prerequisite: Entrance requirements.
PHILOS 1175 - MOTR RELG 100: World Religion

PHILOS 2000 Special Problems (IND 0.0-6.0)
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PHILOS 2001 Special Topics (LEC 0.0-6.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

PHILOS 3000 Special Problems (IND 0.0-6.0)
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PHILOS 3001 Special Topics (LAB 1.0 and LEC 3.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

PHILOS 3204 Wisdom and Virtue: An Introduction to Ancient Philosophy (LEC 3.0)
A study of central themes in ancient philosophy, including the nature of knowledge and reality, and the path to virtue and the importance of wisdom, through selected philosophical works from the pre-Socratics to William of Occam. Prerequisites: An introductory (below 2000) level Philosophy course.

PHILOS 3205 Science, Souls, and Skepticism: Early Modern Philosophy (LEC 3.0)
This course explores how radical shifts in worldview of the early modern period impacted the themes and methods of philosophy, such as empiricism, rationalism, and skepticism, and what we can learn from them today. Figures studied may range from Hobbes, Bacon, and Descartes to Hume. Prerequisites: A previous class in philosophy is recommended.

PHILOS 3223 Bioethics (LEC 3.0)
This course covers several areas of ethical interest in biotechnology, medicine, and medical care. Topics may include stem-cell research, cloning, genetic engineering, reproductive issues, pharmaceutical ethics, privacy, physician-assisted suicide, patient rights, human and animal experimentation, and resource allocation. Prerequisite: Sophomore standing or above.

PHILOS 3225 Engineering Ethics (LEC 3.0)
Engineering ethics, examines major ethical issues facing engineers in the practice of their profession: the problem of professionalism and a code of ethics; the process of ethical decision-making in different working environments; the rights, duties, and conflicting responsibilities of engineers. Prerequisite: Sophomore standing or above.

PHILOS 3235 Business Ethics (LEC 3.0)
Develop ethical concepts relevant to deciding the moral issues that arise in business. Topics include: Economic systems, government regulations, relations to external groups and environment, advertising, product safety and liability, worker safety and rights, rights and responsibilities of business professionals. Prerequisite: Sophomore standing or above.

PHILOS 3254 Symbolic Logic in Argumentation (LEC 3.0)
An introduction to sentential and predicate logic. Focuses on various techniques used to examine logical relationships within an artificial symbolic language, such as truth tables, derivations, and models. Includes metatheoretic discussions of syntax and semantics, and soundness and completeness. Prerequisites: Comp Eng 2210, or Comp Sci 1200, or any 1000-level or higher Philosophy course. Philosophy 1115 is recommended.

PHILOS 3276 Thematics Studies in Film and Philosophy (LEC 3.0)
A study of special topics at the intersection of film and philosophy. Topics vary but may include films on the nature of reality, films on the problem of evil, films on concepts of consciousness and the self, and more. Prerequisites: Art 1185 or one philosophy course, or junior standing. (Co-listed with Art 3276).

PHILOS 4000 Special Problems (IND 0.0-6.0)
Problems or readings on specific subjects of projects in the department. Consent of instructor required.

PHILOS 4001 Special Topics (LEC 0.0-6.0)
This course is designed to give the department an opportunity to test a new course. Variable title.

PHILOS 4320 Minds And Machines (LEC 3.0)
The course will be centered on the topic of artificial intelligence and the problems raised by contemporary attempts to simulate human thinking and perception in machines. Special emphasis will be placed on recent developments in psychology, physiology, cybernetics and computer technology. Prerequisite: Any philosophy course.

PHILOS 4325 Who Knows What? Knowledge, Truth, and Justification (LEC 3.0)
What is knowledge? Do we have it? Can we know that we have it? How do we get it? Are there different kinds of knowledge? An introduction to epistemology, the study of the scope, limits, sources, and nature of knowledge and justified belief. Possible topics include knowledge and justification, skepticism, scientific knowledge, and naturalism. Prerequisites: Any 1000 or higher level philosophy course. Philosophy 1105 recommended.

PHILOS 4340 From Activism to Zoos: Issues in Social Ethics (LEC 3.0)
This Communication Emphasized course discusses ethical issues confronting society and the arguments offered for alternative laws and public policies. Topics might include: freedom of speech/action, government regulation, welfare, capital punishment, euthanasia, abortion, the environment, affirmative action, just wars, foreign aid, world hunger. Prerequisite: Any philosophy course.

PHILOS 4345 Philosophy Of Science (LEC 3.0)
An examination of the fundamental methods and assumptions of the sciences, with emphasis on scientific reasoning and theories. Prerequisite: Any philosophy course.

PHILOS 4350 Environmental Ethics (LEC 3.0)
This Communication Emphasized course studies complex moral issues concerning our relationship to the environment and the ethical foundations of our environmental responsibilities. Discussion topics include: conservation, preservation, resource development, pollution, toxic substances, future generations, endangered species, regulation, zoning, and takings. Prerequisite: Any philosophy course.

PHILOS 4354 Mathematical Logic I (LEC 3.0)
A mathematical introduction to logic with some applications. Functional and relational languages, satisfaction, soundness and completeness theorems, compactness theorems. Examples from Mathematics, Philosophy, Computer Science, and/or Computer Engineering. Prerequisite: Philos 3254 or Math 5105 or Comp Sci 2500 or Comp Eng 2210. (Co-listed with Comp Eng 5803, Comp Sci 5203 and Math 5154).

PHILOS 4360 Who Should Rule and Why? Debates in Political Philosophy (LEC 3.0)
This course is designed as a survey of the philosophical foundations of major political systems. For example, liberalism, communitarianism, communism, fascism, democracy. Materials will be drawn from relevant historical and/or contemporary sources. Prerequisite: Any philosophy course.

PHILOS 4368 Law and Ethics in E-Commerce (LEC 3.0)
Provides the ethical framework to analyze the ethical, legal, and social issues that arise for citizens and computer professionals regarding the computerization of society. Topics include: free speech, privacy, intellectual property, product liability, and professional responsibility.

PHILOS 4399 Topics in Philosophy (LEC 3.0)
This communication intensive course is designed for students with a special interest in philosophy. The content of the course may vary and the course may be repeated for additional credit. Prerequisite: Any Philosophy course.

PHILOS 4580 Issues in Science, Technology and Society (LEC 3.0)
Interdisciplinary course introducing students to the main themes of Science and Technology Studies (STS). Using historical and current examples, they will critically analyze the influence of social groups on the development of science and technology and the effects of science and technology on society. (Co-listed with HIST 4580).

PHILOS 4665 Creating Future Cities (LEC 3.0)
Through texts in the history of philosophy, along with contemporary readings, this class examines how humankind's thinking about urban environments has progressed. It uses philosophical analysis to understand topics such as the ethical, political, aesthetic, and metaphysical dimensions of the city as such, zoning, housing, transportation, & infrastructure. Prerequisites: Sophomore standing or above.

PHILOS 5000 Special Problems (IND 1.0-3.0)
Problems or readings on specific subjects or projects in the department. Consent of instructor required.

PHILOS 5001 Special Topics (IND 1.0-3.0)
This course is designed to give the department an opportunity to test a new course. Variable title.