

Dominican School of Philosophy & Theology  
Philosophy of Nature  
PH 1056  
Fall, 2023  
Mon 12:40 - 3:00, DSPT #1

Michael Dodds, O.P.  
DSPT  
email: mdodds@dspt.edu  
Office: DSPT Faculty Bldg, # 201  
Office hours: by appointment

**Course Description:** Through readings, class discussions and brief written assignments, this course will provide a philosophical account of the nature of change, including classical insights (Aristotle, Aquinas) and contemporary issues in cosmology, the methods of science and philosophy, the nature of causality, time and infinity.

**Goals:** Students will acquire a fundamental knowledge of the Aristotelian-Thomistic account of nature including its roots in classical Greek philosophy and possible applications in contemporary science. They will also acquire a basic grasp of the relationship between philosophy and empirical science.

**Outcomes:** Students will be able to explain the Aristotelian-Thomistic account of substance, change and causality. They will be able to explain the philosophical problematic which gave rise to this account and to apply it to contemporary issues regarding the unity of substances (dualism) and the nature of scientific law. They will also be able to discuss the relationship and influence of philosophy upon science and vice versa (Burt, Kuhn, Thomas Aquinas). This will be demonstrated in the weekly papers and finals essays or research paper.

**Course time composition:** The format for this class will be as follows: One sixty-minute asynchronous session per week, comprising reading of assigned texts including sections of the professor's textbook and responding (via Moodle) to the weekly questions. Two sixty-minute synchronous in-person sessions per week (separated by a twenty-minute break), comprising lecture/discussion of the weekly subject matter. Students should also expect to spend an additional six hours per week in personal study and reflection on the weekly readings and other assessment requirements for the course

<b>Course modality:</b>	Asynchronous reading and Moodle assignment:	35 %
	Synchronous In-person lecture/discussion meeting:	65%

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| Sep.11  | Introduction   |
| Sep. 18 | Change in the Pre-Socratics<br>M. Dodds, <i>The Philosophy of Nature</i> , 1-4. [This assignment is also posted on Moodle.]<br>M. Nahm, <i>Selections from Early Greek Philosophy</i> , 31-45, 62-77, 87-103   |
| Sep. 25 | Responses to Parmenides & principles of change<br>M. Dodds, <i>The Philosophy of Nature</i> , 5-17<br>Aristotle, <i>Metaphysics</i> , Book I, c. 6 and 9.<br>Aristotle, <i>Physics</i> Book I, c.1-9.<br>Thomas Aquinas, <i>Commentary on the Physics</i> I, lecture 14.                         |
| Oct. 2  | Primary matter and substantial form<br>M. Dodds, <i>The Philosophy of Nature</i> , 18-23.<br>Leo Elders, <i>The Philosophy of Nature</i> , p.38-52, 141-44.<br>N. A. Luyten, "Matter as Potency"   |
| Oct. 9  | Substantial form and nature<br>M. Dodds, <i>The Philosophy of Nature</i> , 24-28.<br>Thomas Aquinas, "The Principles of Nature", chap. 1-2.<br>W. Wallace, "Nature as Animating"<br>L. Elders, <i>The Philosophy of Nature</i> , 52-55.  |
| Oct. 16 | Composite, nature, generation<br>M. Dodds, <i>The Philosophy of Nature</i> , 29-41.<br>Aristotle, <i>Physics</i> II, c.1-2.<br>C. Decaen, "Elemental Virtual Presence in St. Thomas"<br>M. Dodds, "Top Down, Bottom Up or Inside Out? Retrieving Aristotelian Causality in Contemporary Science" |

- Oct. 23      READING WEEK
- Oct. 30      Efficient cause (Primary & secondary causality; Principal and instrumental causality)  
                  M. Dodds, *The Philosophy of Nature*, 42-49.  
                  Aristotle, *Physics*, II, c.3.  
                  A. Moreno, "The Law of Inertia"  
                  E. Gilson, *The Christian Philosophy of Thomas Aquinas*, 174-86, 466-69.  
                  [FIRST ESSAY DUE FOR STUDENTS DOING THE THREE ESSAYS]  
                  [PAPER TOPIC DUE FOR THOSE DOING THE 15-20 PAGE PAPER]
- Nov. 6        Final cause & chance  
                  M. Dodds, *The Philosophy of Nature*, 49-58  
                  Aristotle, *Physics* II, c.4-9.  
                  Thomas Aquinas, "Principles of Nature," c. 3-4.  
                  B. Ashley, "Research into the Intrinsic Final Causes of Physical Things"
- Nov. 13      Definition of motion, infinity & the continuum  
                  M. Dodds, *The Philosophy of Nature*, 59-74.  
                  Aristotle, *Physics* III, c.1-3.  
                  Leo Elders, *The Philosophy of Nature*, 67-74, 124-135.  
                  Kuhn, *The Structure of Scientific Revolutions*, Chapters 1 and 2 (pages 1-22, 1970 edition)
- Nov. 20      Place, space and time  
                  M. Dodds, *The Philosophy of Nature*, 75-86.  
                  L. Elders, *The Philosophy of Nature*, 80-99  
                  A. Moreno, "Time and Relativity"  
                  J. Weisheipl, "Space and Gravitation"  
                  Kuhn, *The Structure of Scientific Revolutions*, Chapters 9 and 10 ( pages 92-135, 1970 edition)  
                  [SECOND ESSAY DUE FOR STUDENTS DOING THE THREE ESSAYS]
- Nov. 27      Philosophy and empirical science  
                  M. Dodds, *The Philosophy of Nature*, 87-96  
                  E.A. Burttt, *The Metaphysical Foundations of Modern Science*, 1-22, 300-324  
                  Kuhn, *The Structure of Scientific Revolutions*, Chapters 12 and 13, (pages 144-73, 1970 edition)
- Dec. 4        Philosophy and empirical science  
                  Wallace, William, "Causality, Analogy and the Growth of Scientific Knowledge"  
                  Kuhn, *The Structure of Scientific Revolutions*, Postscript, sections 5-7, (pages 198-210, 1970 edition)
- Dec. 11      FINAL WEEK OF SEMESTER (NO CLASS)  
                  [FOR STUDENTS DOING THE THREE ESSAYS, THIRD ESSAY IS DUE ON DEC. 16]  
                  [FOR STUDENTS DOING THE RESEARCH PAPER, THE PAPER IS DUE ON DEC. 16]

*ASSIGNED READINGS:*

Michael J. Dodds, *The Philosophy of Nature*. (Oakland, CA: Western Dominican Province, 2010). Available through Lulu.com (paperback or e-book). [\$8.95] ISBN: 5800047022264

[**BEWARE:** This book is available at amazon.com but is MUCH more expensive.]

Thomas Kuhn, *The Structure of Scientific Revolutions*. (Chicago: University of Chicago Press, 2012) ISBN: 978-0226458120. [\$15.00] Available amazon.com.

The other readings are available through Moodle.

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*BIBLIOGRAPHY*

A bibliography for the course may be found on the moodle website.

*STRUCTURE:*

The structure of the class is lecture/discussion. Active participation is expected, and this presupposes a careful reading of the assigned texts.

*WEEKLY QUESTIONS:*

To help focus the class in reading the texts, I will give a few questions each class which deal with the weekly reading assignment. These assignments not be graded as such, but their absence will have a negative effect on your grade. You should write a brief (50-70 word) response to *each* question. The response is not meant to be exhaustive, but only to indicate a few principles or points that would be involved in answering the question. Alternatively, you may be asked to formulate one or two questions of your own regarding a certain text. Your responses should be turned in each week on Moodle by the date of the class meeting for which they are assigned.

*ASSESSMENT:*

Students will be graded on class participation and completion of written assignments (30%) and:

## EITHER:

A 15-20 page term paper due on December 15 (70%). This option is recommended for DSPT MA Philosophy students. The paper may be use to fulfill the "Research Paper Review" requirement by submitting the proper form with the paper. **A title and brief description of the paper (200-300 words) will be due on Oct. 30.**

## OR

Three 4-5 page essays on assigned topics (70%). This option is recommended for students who may be new to philosophy or to the Aristotelian-Thomistic tradition. These will be due on October 30, November 20, and December 15. (With the permission of the professor, you may write on a topic other than the assigned one.)

Grades are based on the quality of student work, demonstrating both clearness of expression and mastery of essential concepts, and (for the research paper) evidence of research skills. Work is also evaluated in terms of the institutional goals of the school. For these, see the DSPT Student Handbook:

[\[https://static1.squarespace.com/static/5eb9a2438b5a4f0e028988d6/t/649f5102bd94602e27d03eed/1688162563699/DSPT-StudentHandbook-2023-2024.pdf\]](https://static1.squarespace.com/static/5eb9a2438b5a4f0e028988d6/t/649f5102bd94602e27d03eed/1688162563699/DSPT-StudentHandbook-2023-2024.pdf).

### Appendix: Course & Curricular Outcomes Table

*In the following table, each Course Outcome is listed, followed by course activities and/or assignments by which the Course Outcome is to be measured, along with the DSPT Institutional Outcomes and Program Goals/Outcomes to which the given Course Outcome contributes. The DSPT Institutional Goals and Academic Program Goals/Outcomes are listed below the table with a key to the abbreviations.*

<u>Course Outcome</u>	<u>Activities &amp;/or Assignments To Measure Course Outcome</u>	<u>Related Program and Institutional Goals/Outcomes</u>
(1) Students will be able to explain the Aristotelian-Thomistic account of substance, change and causality	Reading assignments and weekly written questions for: 10/2, 10/9, 10/16, 10/30, 11/6; class discussions; research paper or essays as relevant according to chosen topic.	IGA1, IGA2, IGA3, MAPHeg2, MAPHeg4, MAPHeg5, MAPHtg2, MAPHtg3, MAPHtg4, MAPHtg5
(2) They will be able to explain the philosophical problematic which gave rise to this account and to apply it to contemporary issues regarding the unity of substances (dualism) and the nature of scientific law.	Reading assignments and weekly written questions for: 9/18, 9/25, 10/2, 10/9, 11/13, 11/20; class discussions; research paper or essays as relevant according to chosen topic	IGA1, IGA2, IGA3, MAPHeg2, MAPHeg4, MAPHeg5, MAPHtg2, MAPHtg3, MAPHtg4, MAPHtg5
(3) They will also be able to discuss the relationship and influence of philosophy upon science and vice versa (Burt, Kuhn, Thomas Aquinas)	Reading assignments and weekly written questions for: 11/27, 12/4; class discussions; research paper or essays as relevant according to chosen topic	IGA1, IGA2, IGA3, MAPHeg2, MAPHeg4, MAPHeg5, MAPHtg2, MAPHtg3, MAPHtg4, MAPHtg5

### DSPT Goals and Outcomes

#### **DSPT Institutional Goals:**

**Pedagogical Goal: Deep Learning.** Motivated by a thirst for truth, the disciplined inquirer is a life-long learner who recognizes fundamental principles in a given field of inquiry and applies them in creative or innovative ways to broader contemporary issues which are of importance to Church, the academy, and/or society. Disciplined inquiry includes the following characteristics:

- A1. Integrative Thinking: the ability to recognize, understand, retain, integrate, and apply the fundamental principles operative in a field of inquiry, and use them to make synthetic judgments.
- A2. Intellectual Humility: an orientation of mind and heart that fosters intellectual collaboration, precludes both rigidity and passivity of mind, and recognizes that contrary opinions are not a threat, but provide the opportunity to test and deepen one's own grasp of the truth.
- A3. Self-Direction: the disposition to take primary responsibility for one's own education, manifested in a keen intellectual interest in the topic of studies, and the ability to teach oneself through a habit of skilled and responsible research and resilient exploration.

**Vocational Goal: Collaborative Leadership.** A collaborative leader inspires within others the desire to realize the common good by articulating to academy or society a coherent vision rooted in the mission of the Church, all the while leading by example.

- B1. Ability to Collaborate: expressed in good listening and communication skills which foster decisions stemming from and leading to an open, transparent, and mutually enriching dialog with others in order that the gifts of all can be appropriately acknowledged and utilized.

*Abbreviations: IGA1-Integrative Thinking, IGA2-Intellectual Humility, IGA3-Self-Direction, IGB1-Ability to Collaborate*

**MAPh – Exam Option: Goals**

1. a comprehensive knowledge of the history of the Western philosophical tradition;
2. a detailed understanding of systematic philosophy;
3. skills for academic research;
4. an ability to integrate historical and systematic knowledge in a chosen area of interest;
5. skills for effective communication of philosophical ideas.

*Abbreviations: MAPhEG1-knowledge of history of phil, MAPhEG2-understanding of systematic phil, MAPhEG3-research skills, MAPhEG4-integration of knowledge, MAPhEG5-communication skills*

**MAPh – Thesis Option: Goals**

1. a comprehensive knowledge of the history of the Western philosophical tradition;
2. a detailed understanding of systematic philosophy;
3. skills for academic research;
4. a focused knowledge in one specific topic of philosophical inquiry;
5. skills for advanced academic writing and publication.

*Abbreviations: MAPhTG1-knowledge of history of phil, MAPhTG2-understanding of systematic phil, MAPhTG3-research skills, MAPhTG4-specialized knowledge, MAPhTG5-skills for advanced writing*

**MATh – Exam Option: Goals**

1. a foundational knowledge of the fundamental areas of theological inquiry in the Roman Catholic tradition (reflected in the required core areas);
2. a specialized knowledge of one area of theological inquiry (area of concentration) chosen by the student;
3. the ability to communicate this knowledge effectively through scholarly research and writing;
4. the ability to integrate contemporary theological issues with the tradition of the Catholic Church, especially with the theological tradition of St. Thomas Aquinas.

*Abbreviations: MAThEG1-foundational RC knowledge, MAThEG2-specialized knowledge, MAThEG3-communication skills, MAThEG4-integrating RC & Aquinas & contemporary theol,*

**MATh – Thesis Option: Goals**

1. a foundational knowledge of the fundamental areas of theological inquiry in the Roman Catholic tradition (Biblical Studies, historical theology, dogmatic theology, and moral theology);
2. a specialized knowledge of one area of theological inquiry (area of concentration) chosen by the student;
3. the ability to communicate this knowledge effectively through scholarly writing;
4. the ability to communicate this knowledge effectively through oral presentations and discussions;
5. the ability to integrate contemporary theological issues with the tradition of the Catholic Church, and where possible with the theological tradition of St. Thomas Aquinas.

*Abbreviations: MAThTG1-foundational RC knowledge, MAThTG2-specialized knowledge, MAThTG3-writing skills, MAThTG4-oral communication skills, MAThTG5-integrating RC & Aquinas & contemporary theol.*

**MDiv Outcomes**

1. [communication] to communicate simply, accurately, and effectively the theological tradition of the Roman Catholic Church through preaching, teaching, and writing;
2. [evaluation] to analyze, assess, and critique theological perspectives and situations through scriptural, historical, systematic, and pastoral theological methods, and to assist others in doing the same;
3. [application] to apply Catholic teaching and theology, especially as exemplified by St. Thomas Aquinas, to pastoral situations, recognizing both the difficulties and the opportunities they present;
4. [collaboration] to lead and to work collaboratively with others in a just, charitable, and generous manner, respecting the relevant cultural, social, and ecclesial circumstances, all the while maintaining professional, ethical boundaries;
5. [Church-uniting] to foster Church communion, demonstrated through consistent dedication to community life, participation in prayer, and leading others in worship and theological reflection.

*Abbreviations: MDivO1-communication, MDivO2-evaluation, MDivO3-application, MDivO4-collaboration, MDivO5-Church-uniting*