**Liturgical Piety – Anthropological Foundations of Catholic Liturgy[[1]](#footnote-1)**

DRAFT SYLLABUS

Christopher J. Renz, O.P., Ph.D.

Dominican School of Philosophy & Theology

**SCHEDULING**. This course will be taught in Spring 2017 as a 3.0 semester unit intermediate-level elective course for seminarians in the Master of Divinity program and MA students in the DSPT MA (Theology) and GTU Common MA programs.[[2]](#footnote-2) Doctoral students of the GTU will be permitted to enroll with an appropriate “course upgrade” petition. Our target enrollment goal is to have at least 50 percent seminarians and clergy from the two Catholic schools of the Graduate Theological Union. This percentage balance will be monitored during the registration process by requiring the permission of the instructor before enrollment is allowed.

**Course Description**

Perhaps one of the more familiar and oft-quoted phrases from the Constitution on the Sacred Liturgy (*Sacrosanctum concilium*) is the explicit and earnest desire of the Church “that the faithful be led to that fully conscious and active participation in the liturgical celebration… .” In the fifty years since, much discussion has ensued as to the proper meaning and implementation of this heart-felt plea by the Council. This intermediate-level graduate elective course will explore the historical, philosophical and biological aspects of the meaning of “conscious and active participation” by the laity. The first part introduces students to key concepts discussed by theologians of the so-called liturgical movement, namely “active and intelligent participation” as guided by a “liturgical piety” cultivated in the lay faithful. A survey of primary sources reveals that the term has little to do with physical posture or dress at Mass and everything to do with the cultivation of an interior disposition that is attentive to mystery, especially to the Paschal Mystery. The second part introduces students to the philosophical anthropology of St. Thomas Aquinas and Jacques Maritain, so as to develop practical insights for the cultivation of a legitimate “liturgical piety.” Students will gain insights into natural ability of the human person to grasp and comprehend experiences of mystery, especially as manifest in natural beauty and the fine arts. In the third part, student will be introduced to basic principles from the field of “aesthetic science” (also known as neuroaesthetics) to understand how contemporary science explores these same topics. Because of its central role in Catholic liturgy, music and its impact on cognitive function and pro-social behavior will receive particular attention. Students will demonstrate their mastery of this material by creating and presenting a preliminary design concept for a catechetical program instructing either artists or parish-based groups on the meaning and development of a legitimate liturgical piety. Those enrolled in this course will also be required to participate in one or two co-curricular events that will further explore these ideas.

**LEARNING OBJECTIVES**

The overarching goal of this course is to help students envision a different approach to understanding of “active participation” by the laity in worship. When viewed through the lens of “an anthropology of worship,” this participation can be understood as part of a fundamental human drive for beauty (both natural and created), and a cognitive capacity to apprehend beauty through the experiences of awe and wonder. The pivotal aspect of this course is a proper (legitimate) understanding of the term “liturgical piety,” as it was first introduced by Dom Beauduin in the early 1920s. By the end of this course, students will demonstrate an understanding of the following

1. *Historical and Liturgical Component*: The **primary learning outcome** from this section is a proper understanding of the original meaning of “active participation” as seen through the lens of “liturgical piety,” an interior stance predisposed to the Paschal Mystery in both daily life and liturgical worship. By reviewing selected primary source readings from the liturgical movement, students should understand

**PROPOSED WEEKLY SCHEDULE.**

Week 1:

**Topic:** nature of the problem and early proposed solutions by the monastic communities of France, Belgium and Germany

1. the nature of the historical problem: lack of lay participation in Mass
2. the proposed solutions: “active and intelligent participation” of the laity by
   * 1. introduction of vernacular explanations of the Latin-language liturgy in the missal
     2. review of the role of music (and the fine arts) in the Liturgy;

**Readings:**

Louis Bouyer. *Liturgical Piety*. Notre Dame, IN: University of Notre Dame Press, 1954. [selections only].

Pius X, *Tra le solectitudini* (22 Nov 1903). English language version: <http://www.adoremus.org/MotuProprio.html>.

Alcuin Reid. *The Organic Development of the Liturgy: the principles of the liturgical reform and their relation to the twentieth-century liturgical movement prior to the Second Vatican Council*. San Francisco: Ignatius Press, 2005. [selections only]

Constitution on the Sacred Liturgy, *Sacrosanctum concilium* (4 Dec 1963).

Week 2

**Topic:** Key concepts from the liturgical movement

1. the meaning of “liturgical piety” and
2. its relationship to “active and intelligent” participation in “the most holy mysteries”

**Readings**

Dom Lambert Beauduin. *Liturgy the Life of the Church*. Translated by Virgil Michel, OSB Farnborough, England: St. Michael’s Abbey Press, 2002.

Louis Bouyer. *Liturgical Piety*. Notre Dame, IN: University of Notre Dame Press, 1954. [selections only].

Week 3

**Topic:** contribution of Dom Odo Casal to liturgical movement

1. Liturgy as active and intelligent participation *in the Paschal Mystery*.

**Readings**

Odo Casal. *The Mystery of Christian Worship*. The Crossroad Publishing Company; Reprint edition, March 1, 1999. [selections only]

**ASSESSMENT.** Students will demonstrate their acquisition of learning outcomes for this section by performance in a short written exam.

1. *Philosophical Anthropological Component*. The **primary learning outcome** for this section is an anthropologic understanding of “liturgical piety” through the lens of scholastic/neo-scholastic philosophy. Specifically, students will learn that an “active and intelligent participation” does not – at the first level – involve the “logical” part of the intellect, but rather an “intuitive grasping.” Secondarily, students will understand how this intuitive power of the intellect is related to the human drive to experience and to create beauty. By the end of this section students should understand

Week 4

**Topic:** Scholastic terminology concerning human cognition [N.B. This is intended as a review for those who have a background in philosophical anthropology. Those who do not have this background will be encouraged to read Taylor’s book.

1. Review of basic principles of philosophical anthropology: 1) human as composite; 2) rational soul (intellect/will); 3) human passions; and 4) human body as “icon”
2. The role of emotions in human cognition

**Readings**

*Summa Theologica* Ia QQ 75-76; IaIIae QQ 22-25.

Diana Fritz Cates. *Aquinas on the Emotions: A Religious-Ethical Inquiry*. Georgetown, MD: Georgetown University Press, 2009. [Recommended only]

James S. Taylor. *Poetic Knowledge: The Recovery of Education*.NY: State University of NY Press, 1998. [selections only]

Week 5

**Topic:** connatural (affective) knowledge

* 1. The development by Maritain of the Thomas’ understanding of connaturality and its relationship to the intellectual power of affective (poetic) knowledge

**Readings**

Jacques Maritain, “On Knowledge Through Connaturality,” *Review of Metaphysics* (IV, 4: 473-481).

Victor White. “Thomism and ‘Affective Knowledge’ (II), *Blackfriars*, 24 (277): 126-131.

. “Thomism and ‘Affective Knowledge’ (III), *Blackfriars*, 25 (294): 321-328.

John G. Trapani, Jr., *Poetry, beauty, and contemplation*. Washington, D.C.: The Catholic University Press, 2011. [Recommended only]

Weeks 6, 7, and 8

**Topic:** role that connatural knowledge plays in perception of beauty

1. The role that this intellectual power has in grasping the meaning of mysterious experiences and the ubiquitous striving for beauty [*Art and Scholasticism* and *Creative Intuition*]
2. how Maritain’s anthropology can inform a proper (legitimate) understanding of “active and intelligent participation” and “liturgical piety,” i.e. definitions that are true to the original ideas from the liturgical movement.
3. The philosophical basis for why the fine arts are useful for engendering an active participation in a legitimate liturgical piety

**Readings**

Jacques Maritain. *Art and Scholasticism*.

. *Creative intuition in art and poetry*.New York: Meridian Books, 1965 [1953]. [selections only]

**ASSESSMENT.** Students will demonstrate acquisition of learning outcomes through a short (5-7 page) paper which integrates material from these first two sections of the course. Students may choose from a list of topics, or propose one from their own interest. Examples of appropriate topics include:

* an explanation of the relationship between poetic knowledge and liturgical piety
* an exploration of how a proper understanding of “liturgical piety” informs the use of fine arts in Catholic worship;
* the implications that the intellectual power of poetic knowledge has for a proper understanding of the “catechetical nature” of the liturgy
* how this intellectual power is import to and useful for engendering in the laity “an active and intelligent participation” in mystery in daily life and the Paschal Mystery in the liturgical life of the Church.

1. *Scientific Anthropology Component*. [[3]](#footnote-3) The **primary learning outcome** for this section is a general understanding of contemporary scientific thought and experimental design concerning human cognitive responses to beauty and aesthetics. By the end of this section students should have a basic grasp[[4]](#footnote-4) of

Weeks 9 and 10

**Topic:** General principles related to several contemporary paradigms for “aesthetic science” (or neuraesthetics):

* + 1. aesthetic science as an interdisciplinary field that includes phenomenology, psychology, and neuroscience
    2. the biological, evolutionary, and social advantages for human attraction to beauty
    3. the biology and psychology of “artistic development”

**Readings**

Anjan Chatterjee, “Neuroaesthetics: growing pains of a new discipline” in *Aesthetic Science: connecting minds, brains, and experience*,Arthur P. Shimamura and Stephen E. Palmer, editors, (Oxford: Oxford University Press, 2014), 299-317.

Kimberly M Sheridan and Howard Gardner, “Artistic Development: the three essential spheres” in *Aesthetic Science: connecting minds, brains, and experience*,Arthur P. Shimamura and Stephen E. Palmer, editors, (Oxford: Oxford University Press, 2014), 276-296.

Vilayanur S. Ramachandran and Elizabeth Seckel, “Neurology of visual aesthetics,” in *Aesthetic Science: connecting minds, brains, and experience*,Arthur P. Shimamura and Stephen E. Palmer, editors, (Oxford: Oxford University Press, 2014), 375-389.

Weeks 11 and 12

**Topic:** Experimental design methodologies for

* + 1. “perceptual vastness” and “time expansion effects” of awe/wonder

**Readings**

Dacher Keltner and Jonathan Haidt, “Approaching awe, a moral, spiritual, and aesthetic emotion,” *Cognition and Emotion*, 17, n. 2 (2003): 297-314.

Melanie Rudd, Kathleen D. Vohs, and Jennifer Aaker, “Awe Expands People’s Perception of Time, Alters Decision Making, and Enhances Well-Being,” *Psychological Science* 23 (10): 1130-1136.

* + 1. The effects of music on brain activity, emotions, and well-being

**Readings**

William Ford Thompston and Gottfried Schlaug, “The Healing Power of Music,” *Scientific American*, Mar/Apr 2015: 33-41.

Ruth Stanley, “Origins and Applications of Music in Chronic Illness: role of the Voice, Ancient Chant Scales, and Autonomic Nervous System,” in *Chronic Illness, Spirituality, and Healing: Diverse Disciplinary, Religious, and Cultural Perspectives*, eds. Michael J. Stoltzfus, Rebecca Green, and Darla Schumm (New York: Palgrave Macmillan, 2013): 114-140.

[Optional reading. N.B. Don’t worry about the science or math; just grasp the basic conclusion:] Johanna Sänger, Viktor Müller and Ulman Lindenberger, “Intra- and interbrain synchronization and network properties when playing guitar in duets,” *Frontiers in Human Neuroscience*, 6 (Nov 2012): Article 312. <http://journal.frontiersin.org/article/10.3389/fnhum.2012.00312/abstract>, accessed May 18, 2015.

1. *Integration Segment*.

Weeks 13 and 14

*Sacrosanctum concilium* (n. 11, 14) clearly notes that it is bishops and pastors who are responsible to ensure that the lay person engenders a full and active participation in the liturgy. It also describes the role that musicians, artists, and the clergy have to ensure that all the fine arts assume their true rank and role in Catholic worship (Chapter VI, nn. 127, 129). The goal of this section is for students to use the information gained in the previous sections to develop new insights for educational approaches which help the laity understand and engender a legitimate liturgical piety, and help artists develop a proper understanding of their role in promoting liturgical piety in the worship space. Students will conceive of a project of their own choosing and develop a *draft outline[[5]](#footnote-5)* of that project.

More important than the details of the specific lectures or presentations is the outline and the related bibliographical material which shows your ability to engage primary and secondary sources. Outlines need not include detailed scientific experiments. However, you might consider ways in which to engage scientists in the conversation, e.g. inviting a scientist from a nearby college or university to explain the relevant topics. Examples of appropriate topics are:

* Design concepts for a program that introduces architects to the general parameters of sacred space as it relates to Keltner’s theory of perceived vastness and accommodation in awe.
* Design concept for a catechetical program that introduces parishioners to concept of poetic knowledge as a power for understanding mystery and beauty. You will need to consider how to address the cultural bias *against* this intellectual power as capable of providing “real knowledge.”
* Design of a catechetical program that introduces people into the relationship of “domestic church” with the virtue of liturgical piety, i.e. that there is a daily and ongoing need to develop the skill for perceiving beauty in everyday life so that this skill can be exercised in the liturgy
* Design a catechetical program for church musicians based on Stanley’s description of the relationship between musical tones and human emotions which helps them understand how music communicates moods and emotions; and how this in turn relates to the choice of style in different cultural contexts.

Students will meet with the instructor once to discuss the proposed project; then a second time to review the project before it is presented to the class. Presentations will be no longer than 20’ per student, which includes 5’ for Q/A.

**Faculty Development and Co-curricular Events.**

*Background and rationale for faculty development project*. The Dominican School of Philosophy & Theology (DSPT) is grounded in the centuries-old approach of the Dominican Order which integrates philosophy with theological inquiry. This relationship provides a further natural alignment with the natural sciences. Furthermore, as a member of the Graduate Theological Union, DSPT faculty interact in a regular and ongoing manner with members of other GTU schools and centers, including the Center for Theology and Natural Science. We also have opportunities to interact with faculty from U. C. Berkeley. One of our faculty, Dr. Margarita Vega, is a regular member of study groups in the Philosophy Department and has ongoing affiliations with Dr. John Searle, an eminent scholar in the so-called mind-brain discussion. It is thus not uncommon for the faculty of the Philosophy Department at DSPT to incorporate contemporary science into their courses. Furthermore, we have recently proposed for ourselves a three-year study project on the topic of “Person and Consciousness,” with each year focusing on a different aspect. Year 1: “Thomas Aquinas: the history and metaphysics of the concept of the person.” Year 2: “Person in neuroscience: consciousness and free will.” Year 3: “Personalism and Phenomenology.”

Faculty development at DSPT, then, does not require a “basic introduction” as it might at other institutions. Rather, we are proposing here a public co-curricular event – for faculty and students of both GTU and UC Berkeley – that will align the science topics from Year 2 of this departmental proposal with those from the course being proposed here. After this event, DSPT faculty will meet separately to further explore the presentations.

Given the timing of this proposal, it was not possible for the Philosophy Department to meet for a detailed discussion. However, through some “online conversation” we are currently thinking about a session with invited speaker(s) on the topic of embodied cognition and consciousness, because it would offer a framework for studying the human person as embodied (the Year 2 topic in the philosophy initiative), as well as for examining evidence for the role of music, aesthetics, ritual, etc… in the context of liturgy. Dr. Vega is familiar with this field and the recent research it has produced. We are hoping to invite one of the newer members from our College of Fellows (see: <http://www.dspt.edu/college-of-fellows>) to such an event, Dr. Martin Nowak, whose expertise in evolutionary biology would be well-suited to guide a discussion.

Given the public nature of the proposed event, a follow-up discussion for the entire faculty would be scheduled to allow for a more private engagement of the ideas. Such a discussion would also help theology faculty to see how these ideas might impact their own work in other areas, e.g. functional theology, art history, aesthetics, or Biblical studies courses.

The $2500 suggested by the development team for faculty development would be used to pay travel costs and stipends for the invited speakers and for receptions (both a general one after the event and a second one for the follow-up faculty discussion).

*Other co-curricular event(s).* We would like to propose at least one additional co-curricular event in order to engage a wider audience in themes that arise from this course. Presently, we are thinking to a workshop that explores the direct relationship between music and human emotions by comparing and contrasting the Eastern (Byzantine) and Western (Latin) chant traditions. We would also like to present a workshop – either at the same time or at a different event – which explores the role of music in conflict resolution. For this purpose we have invited a local musican, Jonathan Dimmock, to collaborate with us. In addition to his music degrees, Mr. Dimmock also has a Master of Divinity degree from Yale, and has done work in this specific area of music as a tool for international conflict resolution (see included CV). Mr. Dimmock has also agreed to participate in ongoing conversations throughout the semester with participants in the class.

We are also considering the possibility of a “laboratory component” with some simple experiments (using Likert scales and ratings of mood etc.). The goal is to provide simple hands-on activity that affords the opportunity to explore aesthetics as a scientifically-grounded research discipline rather than something “arbitrary and subjective." Other ideas focus on experiments such as sound measurements at a monastery (or priory such as our own), or other location(s), or other environmental measurements that yield numerical “values” for the aesthetics of different locations. Mr. Chastain would work with colleagues to help formulate and execute such experiments.

**Working Bibliography**

Altenmuller, Eckart and Gottfried Schlaug, “Apollo’s gift: new aspects of neurologic music therapy,” in *Progress in Brain Research*, eds. Eckart Altenmüller, Stanley Finger and François Boller, 217 (2015), 237-252.

Barrett, Justin T. and Bonnie Poon Zahl, “Cognition, Evolution, and Religion,” *APA Handbook of Psychology, Religion, and Spirituality: Vol. 1*. Context, Theory, and Research, K. I. Pargament (Editor-in-Chief), 2013.

Beauduin, Dom Lambert. *Liturgy the Life of the Church*. Translated by Virgil Michel, OSB Farnborough, England: St. Michael’s Abbey Press, 2002.

Bouyer, Louis. *Liturgical Piety*. Notre Dame, IN: University of Notre Dame Press, 1954.

Burke, Edmund. *A philosophical enquiry into the origin of our ideas of the sublime and beautiful*. James T. Boulton, editor. Notre Dame, IN: University of Notre Dame Press, 1968.

Casal, Odo. *The Mystery of Christian Worship*. The Crossroad Publishing Company; Reprint edition, March 1, 1999.

Cavalletti, Sophia. *The Religious Potential of the Child: Experiencing Scripture and Liturgy with Young Children*. Chicago, IL: Liturgy Training Publications, 1992.

, Patricia Coulter, Gianna Gobbi, and Silvana Quattrocchi Montanaro, M.D. *The Good Shepherd and the Child: A Joyful Journey*. Chicago, IL: Liturgy Training Publications, 1994.

Chatterjee, Anjan. *The Aesthetic Brain*. Oxford: Oxford Press, 2014.

Chauvet, Louis-Marie. *The Sacraments: The Word of God at the Mercy of the Body*. Collegeville, MN: The Liturgical Press, 2001.

Clayton, David. *The Way of Beauty: Liturgy, Education, and Inspiration for Family, School, and College*. Angelico Press, 2015.

Croom, Adam M., “Music, neuroscience, and the psychology of well-being: a précis,” *Frontiers in Psychology*, Jan 2012, n. 2: article 393.

Fritz Cates, Diana. *Aquinas on the Emotions: A Religious-Ethical Inquiry*. Georgetown, MD: Georgetown University Press, 2009.

Greeley, Andrew. *The Catholic Imagination*. Berkeley: University of California Press, 2001.

Keeble Brian, editor. *Every Man An Artist: readings in the traditional philosophy of art*. Bloomington, IN: World Wisdom, 2005.

. *God and Work: aspects of art and tradition*. Bloomington, IN: World Wisdom, 2009.

Keltner, Dacher and Jonathan Haidt, “Approaching awe, a moral, spiritual, and aesthetic emotion,” *Cognition and Emotion*, 17, n. 2 (2003): 297-314.

Keltner, Dacher. *Born to Be Good: The Science of a Meaningful Life*. W. W. Norton & Company; 1st edition (January 12, 2009).

Lauring,Jon O., editor. *An Introduction to Neuroaesthetics: the neuroscientific approach to aesthetic experience, artistic creativity, and arts appreciation*. Copenhagen: Museum Tusculanum Press, 2014.

Lindenberger, U., Li S, Gruber W, Muller V. “Brains swinging in concert: cortical phase synchronization while playing guitar.” *BMC Neuroscience* 2009; 10(22): 1-12.

MacDonald, Raymond, Gunter Kreutz, and Laura Mitchell, editors. *Music, Health, and Wellbeing*. Oxford: Oxford Press, 2012.

Maritain, Jacques. *Art and Scholasticism*. John Evans, translator. Accessed on August 19, 2015, <http://www3.nd.edu/Departments/Maritain/etext/art.htm>.

. *Creative intuition in art and poetry*.New York: Meridian Books, 1965 [1953].

John Paul II. “Letter to artists,” 4 Apr 1999. Accessed on August 19, 2015, <http://w2.vatican.va/content/john-paul-ii/en/letters/1999/documents/hf_jp-ii_let_23041999_artists.html>.

. Chirograph “For the centenary of the motu proprio *Tra le sollectudini* (On sacred music),” 22 Nov 2003. Accessed on August 19, 2015, <http://w2.vatican.va/content/john-paul-ii/en/letters/2003/documents/hf_jp-ii_let_20031203_musica-sacra.html>.

. John Paul II, *Familiaris Consortio*, Apostolic Exhortation on the Role of the Christian Family in the Modern World, 22 November 1981. Accessed August 18, 2015, <http://w2.vatican.va/content/john-paul-ii/en/apost_exhortations/documents/hf_jp-ii_exh_19811122_familiaris-consortio.html>.

Matthew G. McDonald, Stephen Wearing, and Jess Ponting, “The Nature of Peak Experience in Wilderness,” *The Humanistic Psychologist*, 37: 370–385, 2009.

McInroy, Mark. *Balthasar on the ‘Spiritual Senses’: Perceiving Splendor* (Oxford: Oxford University Press, 2014).

Oatley, Keith, Dacher Keltner, and Jennifer M. Jenkins; *Understanding Emotions*, Wiley-Blackwell; 2 edition (March 14, 2006).

Olsen, Glenn W. *The turn to transcendence: the role of religion in the twenty-first century*. Washington, D.C.: The Catholic University of America Press, 2010.

Paul VI. “Message to artists at the closing ceremonies of the Second Vatican Council,” 8 Dec 1965. Accessed on August 19, 2015, <http://www.christusrex.org/www1/CDHN/v19.html>.

Pieper, Josef. *Leisure: the basis of culture.* Translated by Alexander Dru. New York: Random House, 1963.

. *In tune with the world: a theory of festivity*. Translated by Richard and Clara Winston (Chicago: Franciscan Herald Press, 1973 [1963]).

Pius X, *Tra le solectitudini* (22 Nov 1903). English language version: <http://www.adoremus.org/MotuProprio.html>.

Pius XII. “Letter to artists,” 8Apr 1952.

Pius XII. Encyclical on Sacred Music, 25 Dec 1955.

Pontifical Council for Culture, “The Via Pulchritudinis,” 2006. <http://www.vatican.va/roman_curia/pontifical_councils/cultr/documents/rc_pc_cultr_doc_20060327_plenary-assembly_final-document_en.html>, accessed on May 18, 2015.

Joseph Cardinal Ratzinger. *The Spirit of the Liturgy*. Translated by John Saward. San Francisco: Ignatius Press, 2000.

Reid, Alcuin. *The Organic Development of the Liturgy: the principles of the liturgical reform and their relation to the twentieth-century liturgical movement prior to the Second Vatican Council*. San Francisco: Ignatius Press, 2005.

Rudd, Melanie, Kathleen D. Vohs, and Jennifer Aaker, “Awe Expands People’s Perception of Time, Alters Decision Making, and Enhances Well-Being,” Psychological Science 23 (10): 1130-1136.

Ryff, Carol D. and Burton Singer, “The Contours of Positive Human Health,” *Psychological Inquiry* 9, n. 1 (1998): 1-28.

Constitution on the Sacred Liturgy, *Sacrosanctum concilium* (4 Dec 1963). Accessed on August 19, 2015, <http://www.vatican.va/archive/hist_councils/ii_vatican_council/documents/vat-ii_const_19631204_sacrosanctum-concilium_en.html>.

Sacks Oliver. *Musicophilia: tales of music and the brain*. New York: Vintage Books, 2008.

Sänger, Johanna, Viktor Müller and Ulman Lindenberger, “Intra- and interbrain synchronization and network properties when playing guitar in duets,” *Frontiers in Human Neuroscience*, 6 (Nov 2012): Article 312. <http://journal.frontiersin.org/article/10.3389/fnhum.2012.00312/abstract>, accessed May 18, 2015.

Shimamura, Arthur P. and Stephen E. Palmer, editors, *Aesthetic Science: connecting minds, brains, and experience*.Oxford: Oxford University Press, 2014.

Stanley, Ruth. “Origins and Applications of Music in Chronic Illness: role of the Voice, Ancient Chant Scales, and Autonomic Nervous System,” in *Chronic Illness, Spirituality, and Healing: Diverse Disciplinary, Religious, and Cultural Perspectives*, eds. Michael J. Stoltzfus, Rebecca Green, and Darla Schumm (New York: Palgrave Macmillan, 2013): 114-140.

Stellar, Jennifer E., Neha John-Henderson, Craig L. Anderson, Amie M. Gordon, Galen D. McNeil, and Dacher Keltner, “Positive Affect and Markers of Inflammation: Discrete Positive Emotions Predict Lower Levels of Inflammatory Cytokines,” *Emotion* 15, n. 2 (Apr 2015): 129-133.

Taft, Robert. *The Liturgy of the Hours in East and West*. Collegeville, MN: The Liturgical Press, 1993.

Taylor, James S.. *Poetic Knowledge: The Recovery of Education*.NY: State University of NY Press, 1998.

Thompson, William Ford and Gottfried Schlaug, “The Healing Power of Music,” *Scientific American*, Mar/Apr 2015: 33-41.

Trapani, Jr., John G., *Poetry, beauty, and contemplation*. Washington, D.C.: The Catholic University Press, 2011.

1. N.B. The course scheduling software used by the GTU will require an abbreviated version of this

   title. [↑](#footnote-ref-1)
2. As a member of the Graduate Theological Union, DSPT participates in a common cross-registration program. Thus, any given course can be populated with students from other member schools. The Jesuit School of Theology (JST) participates in this program. In addition to offering the Master of Divinity, JST also offers STL and STD pontifical degrees. Many of the students in these programs are members of the Society of Jesus from outside the United States, whose participation would bring fascinating cultural insights into the topics under discussion in this course. [↑](#footnote-ref-2)
3. Fr. Renz and Mr. Chastain will work together on this section in the preparation of the lectures. It remains to be determined whether and to what extent Mr. Chastain will participate online or onsite. At this point, priority is for him to be present at DSPT for the co-curricular events first, and lectures second. [↑](#footnote-ref-3)
4. The goal here is to help students understand how scientists approach this topic, design experiments related to it, and draw conclusions based on their work. Students are not expected to understand the details of experimental design or methods for data analysis. For this reason, review articles are used to present the overarching principles from the various schools of thought. [↑](#footnote-ref-4)
5. Given the intermediate level of this course, the goal is to present the idea, not a “drilled down” detailed proposal. Doctoral students will be required to do more extensive research to support their outlines. [↑](#footnote-ref-5)