

MONTESSORI PHILOSOPHY AND ADOLESCENT DEVELOPMENT (EDME 551)

High-Residency Model: 49 hours in person

Low-Residency Model: 50 hours online and 5 hours in person

COURSE OVERVIEW:

Students in this course will read Montessori's biography, and discuss current trends and issues in Montessori education, adolescent development, and philosophy specifically as they apply to the education of the adolescent. An overview of adolescent development will emphasize developmental characteristics in the physical, psychological, social and moral/spiritual realms. Students will explore the writings of Montessori and discuss adaptations of these theories in light of current research and best practices. Participants will also be able to participate in experiential exercises in community building, mindfulness, and attachment theory.

REQUIRED TEXT & RESOURCES:

- Selected articles on the Montessori Philosophy (9) by Marta Donahoe
- *Maria Montessori: The Biography* by Rita Kramer
- *Teaching with Love and Logic*, by Jim Faye and David Funk
- *Brianstorm* by Daniel Siegel
- *The Way of Mindful Education* by Daniel Rechtschaffen
- "Flow in Education" by Mihaly Csikszentmihalyi
- *From Childhood to Adolescence*, by Maria Montessori
- "The Four Planes of Development" by Camillo Grazzini
- "Third Lecture," by Maria Montessori
- *Socratic Circles*, by Matt Copeland

STANDARDS and COMPETENCIES

MACTE Standards:

- 1a. and 3c. Montessori Philosophy (and methods)
- 1b. Human Growth and Development
- 1c. Subject matter, including Cosmic Education, Peace education, and Practical life
- 2c. The prepared environment
- 2d. and 3d. Parent/teacher/family/community partnership
- 2e. The purpose and methods of observation
- 2h. Reflective practice
- 2j. Culturally responsive methods
- 3a. Classroom leadership
- 3e. Professional responsibilities
- 3f. Innovation and flexibility

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

1. Planes of development
2. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"
3. Montessori's life
4. Montessori's concepts and theories including peace and cosmic education.
5. Montessori in relation to current research and relevance today
6. Personal growth through self-evaluation
7. Observation

6.4.5.2 Classroom Leadership

1. Current trends and research in secondary education and adolescent development
2. Montessori Secondary education models
3. The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)
4. Creating a physically, psychologically, and developmentally prepared learning environment
5. Strategies that encourage students to be independent and interdependent
6. Coaching, mastery, and experiential learning strategies
7. Supporting positive work habits
8. Student leadership and autonomy in the classroom
9. Community building and group dynamics
10. Collaboration among adults, including team-teaching and working with an assistant
11. Classroom management consistent with Montessori philosophy
12. Student and teacher record keeping
13. Various forms of assessment
14. Professional Development
15. AMS Suggested Materials List for Secondary Programs

6.4.5.3 Curriculum Design and Implementation (modeled and/or discussed)

2. Global and cosmic perspective
3. Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs
4. Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization
5. Three period lesson design
6. Activities in self-discovery, self-construction, social life, and community building
7. Divergent and high-level thinking, especially through dialogue and discussions
8. Providing choice through multi-intelligence and modalities
9. Active and experiential learning
10. Small and whole group learning experiences
11. Elements that support student interdependence and independence in the classroom
12. Practical life appropriate to adolescence
13. Appropriate use of technology in the Secondary classroom
14. Various forms of formative and summative assessment that lead to mastery
15. Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.

6.4.5.4 Adolescent Psychology (*Foundational*)

1. Early and middle adolescent stages and application in program development
2. Physical development, including brain development
3. Cognitive development
4. Psycho-social development
5. Moral development
6. Adolescents' concerns and issues and support service

6.4.5.5 Communication and Partnership with Families

1. Teacher as facilitator and model
2. Positive and effective interactions with adolescents
4. Supporting families and students with cultural sensitivity

Student Learning Outcomes:

Teachers will be able to articulate the reasons they are teaching in a less traditional, more effective way, and how that connects to the development of the adolescent. They will reflectively examine their own beliefs and backgrounds, and they will demonstrate understanding of the principles of Montessori's teacher transformation. Participants will be able to articulate needs and characteristics of adolescents, as well as the fundamental teaching principles of Dr. Maria Montessori as applied to the third plane of development.

EVALUATION/ASSIGNMENTS:

Daily (high res) or Weekly (low res) Self and Instructor Evaluation 60%

Includes:

- Successful completion of all required readings and assignments, reviewed by instructor
- Positive participation in all in-person or online course discussions
- Personal reflections on growth and new learnings, with ideas for application

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.5

MACTE standards assessed: 1a., 3c, 1c, 2e., 2h., 2j., 3a., 3e., 3f.

Final Synthesis Project* 40%

Includes:

- A student explanation and reflective self-evaluation of the work
- Articulation of concepts covered so far in training, to include: Valorization, Flow, freedom and limits, the role of the guide, the Love and Logic approach, restorative practices, peace and social justice education, Seven Gateways to the Soul of Education, Adolescent Needs and Characteristics, Planes of Development

*The final project also builds to the final synthesis paper of the training program, which functions as the MEd comprehensive exam for students pursuing graduate credit with Xavier University. This final synthesis is submitted and assessed at the end of all training

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.4

MACTE standards assessed: 1a., 3c, 1b, 1c, 2c, 2d, 2j,

ERDKINDER (EDFD 499)

Class meets in person for both low (52 contact hours) and high (62 contact hours) residency models.

COURSE OVERVIEW:

This is a multi-day field study course to explore a modern interpretation of Dr. Maria Montessori's plan of Erdkinder (or "land-children") for adolescents, as outlined in her writings. Adult learners examine Montessori's writings and work, and they experience a field study (in preparation for building curricular field studies in the Pedagogy of Place course.) As part of this experience, adult learners examine the concept of valorization of the personality, a function of combining work of the head, hands, and heart. In this course, adult learners engage in service, work of the hands, and care of the group (including food preparation lessons), alongside their academic endeavors. In considering forms for a modern "Erdkinder" and cosmic approach, adult learners consider challenges to the earth and its caretakers and consider their own role in practices of stewardship and sustainability.

REQUIRED TEXT & RESOURCES:

- Selected essays from Wendell Berry
- The Omnivore's Dilemma by Michael Pollan
- Selected essays by Barbara Kingsolver
- From Childhood to Adolescence, by Maria Montessori
- A Land Ethic, by Aldo Leopold
- Various NAMTA articles
- Green Fire film
- Food Inc film
- The Biggest Little Farm film

STANDARDS and COMPETENCIES (bolded standards are addressed in this course)

MACTE Standards:

The adult learner will understand:

- 1a. Montessori Philosophy (and methods)**
- 1b. Human Growth and Development**
- 1c. Subject matter, including cosmic and peace education, practical life, and the arts**
- 1d. Community resources for learning**

The adult learner will understand the following pedagogical elements:

- 2a. Correct use of Montessori materials
- 2b. Scope and sequence of curriculum (spiral curriculum)
- 2c. The prepared environment**
- 2d. Parent/teacher/family/community partnership**
- 2e. The purpose and methods of observation
- 2f. Planning for instruction
- 2g. Assessment and documentation
- 2h. Reflective practice**
- 2i. Support and intervention for learning differences
- 2j. Culturally responsive methods

The adult learner will demonstrate and implement:

- 3a. Classroom leadership**
- 3b. Authentic assessment**
- 3c. The Montessori philosophy and methods**
- 3d. Parent/teacher/family partnerships
- 3e. Professional responsibilities
- 3f. Innovation and flexibility

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

- 8. Planes of development**
- 9. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"**
- 10. Montessori's life
- 11. Montessori's concepts and theories including peace and cosmic education.**
- 12. Montessori in relation to current research and relevance today**
- 13. Personal growth through self-evaluation**
- 14. Observation

6.4.5.2 Classroom Leadership

- 16. Current trends and research in secondary education and adolescent development
- 17. Montessori Secondary education models**
- 18. The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)**
- 19. Creating a physically, psychologically, and developmentally prepared learning environment**
- 20. Strategies that encourage students to be independent and interdependent**
- 21. Coaching, mastery, and experiential learning strategies
- 22. Supporting positive work habits, such as Habits of Mind
- 23. Student leadership and autonomy in the classroom
- 24. Community building and group dynamics**
- 25. Collaboration among adults, including team-teaching and working with an assistant**
- 26. Classroom management consistent with Montessori philosophy
- 27. Student and teacher record keeping**
- 28. Various forms of assessment such as observation, written, performance, self, and use of portfolios**
- 29. Professional Development
- 30. AMS Suggested Materials List for Secondary Programs
- 31. Awareness of educational regulation
- 32. Preparation for the next step: high school or college and career readiness

6.4.5.3 Curriculum Design and Implementation

- 1. Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent
- 2. Global and cosmic perspective**
- 3. Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs**
- 4. Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization**
- 5. Three period lesson design
- 6. Activities in self-discovery, self-construction, social life, and community building**

7. **Divergent and high-level thinking, especially through dialogue and discussions**
8. Providing choice through multi-intelligence and modalities
9. **Active and experiential learning**
10. **Small and whole group learning experiences**
11. Elements that support student interdependence and independence in the classroom
12. **Practical life appropriate to adolescence**
13. **Appropriate use of technology in the Secondary classroom**
14. Various forms of formative and summative assessment that lead to mastery
15. **Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.**

6.4.5.4 Adolescent Psychology (*Foundational*)

7. **Early and middle adolescent stages and application in program development**
8. **Physical development, including brain development**
9. **Cognitive development**
10. **Psycho-social development**
11. **Moral development**
12. **Adolescents' concerns and issues and support service**

6.4.5.5 Communication and Partnership with Families

3. **Teacher as facilitator and model**
4. **Positive and effective interactions with adolescents**
5. **Appropriate channels of communication**
6. **Supporting families and students with cultural sensitivity**
7. **Community resources for additional support**

STUDENT LEARNING OUTCOMES:

Adult learners will learn, experientially, how multi-day field studies for adolescents are planned and executed, including group dynamics, teaming, food preparation, and how field studies can offer a unique balance of work of the head, hand, and heart, providing opportunities for adolescent valorization. They will consider ethics and issues related to care of the earth and its inhabitants (with a focus on food production) and will examine the role of humans generally and themselves individually as part of a larger cosmic system. Adult learners will be able to articulate Montessori's vision of Erdkinder and explain how their own program offers these land connections for adolescents.

EVALUATION/ASSIGNMENTS:

Daily (high res) Self and Instructor Evaluation 50%
 Includes leadership rubric (30%) and journals (20%) covering:

- Successful completion of all required readings and assignments, reviewed by instructor
- Positive participation in all experiences (leadership rubric)
- Personal reflections on growth and new learnings, with ideas for application (journals)

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1b, 1c, 1d, 2c, 2d, 2h, 3a, 3b, 3c

Final Synthesis Project* 50%

- Includes:
- A student explanation and reflective self-evaluation of the work
 - Articulation of concepts explored in this course, including:
 - o Human dependence on land to secure food

- Role of humans as interdependent components of Nature: cosmic perspectives
- The impact of individual choices on the earth
- Resource use and abuse
- Service work
- Leadership
- Community building
- Valorization of the personality

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3

MACTE standards assessed: 1a., 1c, 1d, 2c, 2h, 3a

INTRODUCTION TO CURRICULUM (EDME 511)

High-Residency Model: 46 hours in person

Low-Residency Model: 20 hours online and 25 hours in person

COURSE OVERVIEW:

This course provides adult learners a strong foundation of how secondary Montessori classrooms build on the approaches of elementary Montessori classrooms. Adult learners experience the Great Lessons and various aspects of the Montessori elementary curricula and materials: math & geometry, language arts, history, geography, biology, physical science, and the arts. Students will be given opportunities to experience the elementary lessons and work cycle, to work with the Montessori elementary materials, and to reflect on ways to use the materials, lessons, and timelines in secondary classrooms to make smooth transitions between elementary and secondary curricula.

REQUIRED TEXT & RESOURCES:

Montessori Today, by Paula Polk Lillard

Children of the Universe, by Michael and D'Neil Duffey

Various seminar readings

STANDARDS and COMPETENCIES (bolded standards are addressed in this course)

MACTE Standards:

The adult learner will understand:

- 1a. Montessori Philosophy (and methods)**
- 1b. Human Growth and Development**
- 1c. Subject matter, including cosmic and peace education, practical life, and the arts**
- 1d. Community resources for learning

The adult learner will understand the following pedagogical elements:

- 2a. Correct use of Montessori materials**
- 2b. Scope and sequence of curriculum (spiral curriculum)**
- 2c. The prepared environment**
- 2d. Parent/teacher/family/community partnership**
- 2e. The purpose and methods of observation**
- 2f. Planning for instruction**
- 2g. Assessment and documentation**
- 2h. Reflective practice**
- 2i. Support and intervention for learning differences**
- 2j. Culturally responsive methods**

The adult learner will demonstrate and implement:

- 3a. Classroom leadership**
- 3b. Authentic assessment**
- 3c. The Montessori philosophy and methods**
- 3d. Parent/teacher/family partnerships**
- 3e. Professional responsibilities**
- 3f. Innovation and flexibility**

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

- 15. Planes of development**
- 16. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"

17. Montessori's life
- 18. Montessori's concepts and theories including peace and cosmic education.**
- 19. Montessori in relation to current research and relevance today**
- 20. Personal growth through self-evaluation**
- 21. Observation**

6.4.5.2 Classroom Leadership

33. Current trends and research in secondary education and adolescent development
34. Montessori Secondary education models
- 35. The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)**
- 36. Creating a physically, psychologically, and developmentally prepared learning environment**
- 37. Strategies that encourage students to be independent and interdependent**
- 38. Coaching, mastery, and experiential learning strategies**
- 39. Supporting positive work habits**
- 40. Student leadership and autonomy in the classroom**
- 41. Community building and group dynamics**
42. Collaboration among adults, including team-teaching and working with an assistant
- 43. Classroom management consistent with Montessori philosophy**
- 44. Student and teacher record keeping**
- 45. Various forms of assessment such as observation, written, performance, self, and use of portfolios**
46. Professional Development
47. AMS Suggested Materials List for Secondary Programs
48. Awareness of educational regulation
49. Preparation for the next step: high school or college and career readiness

6.4.5.3 Curriculum Design and Implementation

16. Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent
- 17. Global and cosmic perspective**
18. Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs
- 19. Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization**
- 20. Three period lesson design**
- 21. Activities in self-discovery, self-construction, social life, and community building**
- 22. Divergent and high-level thinking, especially through dialogue and discussions**
- 23. Providing choice through multi-intelligence and modalities**
- 24. Active and experiential learning**
- 25. Small and whole group learning experiences**
- 26. Elements that support student interdependence and independence in the classroom**
27. Practical life appropriate to adolescence
28. Appropriate use of technology in the Secondary classroom

29. Various forms of formative and summative assessment that lead to mastery
- 30. Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.**

6.4.5.4 Adolescent Psychology (Foundational)

13. Early and middle adolescent stages and application in program development
14. Physical development, including brain development
15. Cognitive development
16. Psycho-social development
17. Moral development
18. Adolescents' concerns and issues and support service

6.4.5.5 Communication and Partnership with Families

8. Teacher as facilitator and model

9. Positive and effective interactions with adolescents
10. Appropriate channels of communication

11. Supporting families and students with cultural sensitivity

12. Community resources for additional support

STUDENT LEARNING OUTCOMES:

Adult learners in this course will be able to integrate elements of the Montessori elementary classroom into their work with secondary students, including: Montessori materials, timelines, and/or Great Lessons. They will be able to articulate the fundamental elements of Montessori's Cosmic Education and how it applies to the third plane of development, as well as identify the key elements of the elementary classroom upon which the secondary classroom is built: the role of the teacher, the prepared environment, the work cycle, and the community. Adult learners will become skilled participants in Seminar discussions and learn the teacher's role for facilitating high-quality Seminar discussions with adolescents.

EVALUATION/ASSIGNMENTS:

Daily (high res) or Weekly (low res) Reflection assignments 50%

Includes:

- Successful completion of all required readings and assignments
- Positive participation in all in-person or online course discussions and Seminars
- Personal reflections on growth and new learnings, with ideas for application

AMS standards assessed: 6.4.5.1 (1, 4, 5, 6, 7) 6.4.5.2 (3, 4, 5, 6, 7, 8, 9, 11, 12) 6.4.5.3 (2, 4, 5, 7, 15), 6.4.5.5 (1, 4)

MACTE standards assessed: 1a, 1b, 1c, 2b, 2c, 2d, 2e, 2h, 2i, 2j, 3a, 3c, 3d, 3e, 3f

Practice with Materials 15%

Includes:

- Successful practice with Montessori materials and timelines, with a focus on the materials most relevant to the teacher's discipline
- Reflection on integration and extension of these materials, timelines and Great Lessons, as appropriate for the secondary classroom.

AMS standards assessed: 6.4.5.1 (1), 6.4.5.3 (8, 9, 10, 11)

MACTE standards assessed: 1a, 1c, 2a, 2b, 2f, 2g, 3c

Final Project* 15%

Includes:

Articulation of key concepts presented in this course, including the key elements and lessons of the elementary classroom upon which the secondary Montessori classroom will build and Cosmic Education, with an explanation of how it expands to Cosmic Vision for the third plane.

*The final project also builds to the final synthesis paper of the training program, which functions as the MEd comprehensive exam for students pursuing graduate credit with Xavier University. This final synthesis is submitted and assessed at the end of all training

AMS standards assessed: 6.4.5.1 (1, 4, 5) 6.4.5.2 (3, 4, 5, 7, 8, 9) 6.4.5.3 (2, 4, 5, 11)

MACTE standards assessed: 1a., 1c, 2a, 2b, 2f, 3c

Seminar Components

20%

Includes:

- Student-created, classroom ready tools for teaching and facilitating Seminar in the secondary classroom, including lesson plans, guidelines, and assessment tools
- One seminar piece, ready for student discussion: including annotations and clustered questions

AMS standards assessed: 6.4.5.1 (6), 6.4.5.2 (3, 4, 5, 6, 7, 8, 9, 12, 13) 6.4.5.3 (2, 6, 7, 8, 9, 10, 11)

MACTE standards assessed: 2f, 2g, 3b

CURRICULUM DEVELOPMENT (EDME 513)

High-Residency Model: 99 hours in person

Low-Residency Model: 50 hours online and 44 hours in person

COURSE OVERVIEW:

In this course, following a deep dive into Montessori Philosophy, Erdkinder, and Intro to Curriculum, adult learners build on and now apply their prior knowledge to the creation of thematic curricula; the secondary Montessori teacher's equivalent to an "album." Adult learners practice integrating content standards with an approach designed to meet the developmental needs of the adolescent, in order to deliver academic programming that takes a holistic pedagogical approach, a hallmark of the Montessori method for every age.

REQUIRED TEXT & RESOURCES:

The First Six Weeks of School by Paula Denton and Roxann Kriete

Learning Leadership by Michael Brandwein

Other seminar texts and exemplars, provided by the instructor

STANDARDS and COMPETENCIES (bolded standards are addressed in this course)

MACTE Standards:

The adult learner will understand:

1a. Montessori Philosophy (and methods)

1b. Human Growth and Development

1c. Subject matter, including cosmic and peace education, practical life, and the arts

1d. Community resources for learning

The adult learner will understand the following pedagogical elements:

2a. Correct use of Montessori materials

2b. Scope and sequence of curriculum (spiral curriculum)

2c. The prepared environment

2d. Parent/teacher/family/community partnership

2e. The purpose and methods of observation

2f. Planning for instruction

2g. Assessment and documentation

2h. Reflective practice

2i. Support and intervention for learning differences

2j. Culturally responsive methods

The adult learner will demonstrate and implement:

3a. Classroom leadership

3b. Authentic assessment

3c. The Montessori philosophy and methods

3d. Parent/teacher/family partnerships

3e. Professional responsibilities

3f. Innovation and flexibility

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

22. Planes of development

23. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"

24. Montessori's life

25. **Montessori's concepts and theories including peace and cosmic education.**
26. Montessori in relation to current research and relevance today
27. **Personal growth through self-evaluation**
28. Observation

6.4.5.2 Classroom Leadership

50. **Current trends and research in secondary education and adolescent development**
51. **Montessori Secondary education models**
52. **The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)**
53. **Creating a physically, psychologically, and developmentally prepared learning environment**
54. **Strategies that encourage students to be independent and interdependent**
55. **Coaching, mastery, and experiential learning strategies**
56. **Supporting positive work habits, such as Habits of Mind**
57. **Student leadership and autonomy in the classroom**
58. **Community building and group dynamics**
59. **Collaboration among adults, including team-teaching and working with an assistant**
60. **Classroom management consistent with Montessori philosophy**
61. **Student and teacher record keeping**
62. **Various forms of assessment such as observation, written, performance, self, and use of portfolios**
63. **Professional Development**
64. **AMS Suggested Materials List for Secondary Programs**
65. **Awareness of educational regulation**
66. **Preparation for the next step: high school or college and career readiness**

6.4.5.3 Curriculum Design and Implementation

31. **Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent**
32. **Global and cosmic perspective**
33. **Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs**
34. **Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization**
35. **Three period lesson design**
36. **Activities in self-discovery, self-construction, social life, and community building**
37. **Divergent and high-level thinking, especially through dialogue and discussions**
38. **Providing choice through multi-intelligence and modalities**
39. **Active and experiential learning**
40. **Small and whole group learning experiences**
41. **Elements that support student interdependence and independence in the classroom**
42. **Practical life appropriate to adolescence**
43. **Appropriate use of technology in the Secondary classroom**
44. **Various forms of formative and summative assessment that lead to mastery**
45. **Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.**

6.4.5.4 Adolescent Psychology (*Foundational*)

19. Early and middle adolescent stages and application in program development

20. Physical development, including brain development

21. Cognitive development

22. Psycho-social development

23. Moral development

24. Adolescents' concerns and issues and support service

6.4.5.5 Communication and Partnership with Families

13. Teacher as facilitator and model

14. Positive and effective interactions with adolescents

15. Appropriate channels of communication

16. Supporting families and students with cultural sensitivity

17. Community resources for additional support

STUDENT LEARNING OUTCOMES:

Adult learners will demonstrate competency in building interdisciplinary thematic curricula, which meets both requisite academic standards and the holistic developmental needs of adolescents. They will be able to articulate the rationale behind each curricular element, including how these elements work together to promote family partnerships, cosmic and peace education (with a particular focus on ABAR classroom elements), and opportunities for valorization. By the end of the course, adult learners are ready to begin the practicum, having created and experienced curricular elements of the high-functioning secondary Montessori classroom.

EVALUATION/ASSIGNMENTS:

Daily Self and Instructor Evaluation 30%

Includes:

- Positive participation in all in-person or online course discussions and activities
- Personal reflections on growth and new learnings, with ideas for application

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.5

MACTE standards assessed: 1a., 3c, 1c, 2e., 2h., 2j., 3a., 3e., 3f.

Completion of daily/weekly homework assignments 5%

Includes:

- Successful completion of all required readings and reading reflections
- Preparation for the practicum phase assignments
- ABAR workshop assignments and participation
- Aligning cycle themes and academic content standards
- Choice mini-work project, in preparation for the year-long project

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.5

MACTE standards assessed: 1a., 1c, 1d, 2c, 2d, 2e, 2i, 2j, 3a.,3d, 3e., 3f.

Project: Curricular Cycle of Study 55%

Includes submission of the following curricular elements:

- Academic objectives/standards, matched to theme and adolescent needs/characteristics
- Seminar teaching elements, including a piece for discussion with clustered discussion questions, implementation guidelines, teacher record keeping tool, and student self-assessment tools
- Planning calendar

- Thematic kick-off activity
- Thematic group initiative
- Thematic culminating activity
- Lesson plans, including procedural lessons and lessons with connections to Montessori materials and philosophy
- Shelfwork
- Opportunity outside of the classroom
- Curricular cover page
- Student work checklists
- Student project packet
- Assessment tools, including for projects, leadership, and self-directed activity in the classroom

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3b, 3c, 3d, 3e, 3f

Rationale Paper*

10%

Includes:

- A student explanation and reflective self-evaluation of the cycle of study project
- Articulation of how specific elements of the cycle of study connect to Montessori philosophy and the needs of the adolescent, referencing concepts from prior CMStep courses.

*This rationale paper also builds to the final synthesis paper of the training program, which functions as the MEd comprehensive exam for students pursuing graduate credit with Xavier University. This final synthesis is submitted and assessed at the end of all training.

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3b, 3c, 3d, 3e, 3f

STRUCTURE AND ORGANIZATION (EDME 512)

High-Residency Model: 80 hours in person

Low-Residency Model: 40 hours online and 33 hours in person

COURSE OVERVIEW:

This course is a continuation of Curriculum Development, where adult learners who are in the final months of their practicum self-assess and hone their personal teaching practices in the following areas: Anti-Bias, Anti-Racist teaching practices, classroom routines, teacher and student organization and management principles, and assessment and evaluation. Adult learners connect all classroom practices to Montessori philosophy and the needs of the adolescent.

REQUIRED TEXT & RESOURCES:

This Book is Anti-Racist, by Tiffany Jewell

Stamped Remix, by Ibram X Kendi and Jason Reynolds

Me and White Supremacy, by Layla Saad

How to be an Antiracist, by Ibram X Kendi

Socratic Circles, by Matt Copeland

Selected short stories for Seminar discussions and practice

Montessori Today, by Paula Polk Lillard

Grading Practices review of research, via the Marshall Memo

STANDARDS and COMPETENCIES (bolded standards are addressed in this course)

MACTE Standards:

The adult learner will understand:

1a. Montessori Philosophy (and methods)

1b. Human Growth and Development

1c. Subject matter, including cosmic and peace education, practical life, and the arts

1d. Community resources for learning

The adult learner will understand the following pedagogical elements:

2a. Correct use of Montessori materials

2b. Scope and sequence of curriculum (spiral curriculum)

2c. The prepared environment

2d. Parent/teacher/family/community partnership

2e. The purpose and methods of observation

2f. Planning for instruction

2g. Assessment and documentation

2h. Reflective practice

2i. Support and intervention for learning differences

2j. Culturally responsive methods

The adult learner will demonstrate and implement:

3a. Classroom leadership

3b. Authentic assessment

3c. The Montessori philosophy and methods

3d. Parent/teacher/family partnerships

3e. Professional responsibilities

3f. Innovation and flexibility

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

1. Planes of development

2. **Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"**
3. Montessori's life
4. **Montessori's concepts and theories including peace and cosmic education.**
5. Montessori in relation to current research and relevance today
6. **Personal growth through self-evaluation**
7. Observation

6.4.5.2 Classroom Leadership

1. **Current trends and research in secondary education and adolescent development**
2. **Montessori Secondary education models**
3. **The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)**
4. **Creating a physically, psychologically, and developmentally prepared learning environment**
5. **Strategies that encourage students to be independent and interdependent**
6. **Coaching, mastery, and experiential learning strategies**
7. **Supporting positive work habits, such as Habits of Mind**
8. **Student leadership and autonomy in the classroom**
9. **Community building and group dynamics**
10. **Collaboration among adults, including team-teaching and working with an assistant**
11. **Classroom management consistent with Montessori philosophy**
12. **Student and teacher record keeping**
13. **Various forms of assessment such as observation, written, performance, self, and use of portfolios**
14. **Professional Development**
15. **AMS Suggested Materials List for Secondary Programs**
16. **Awareness of educational regulation**
17. **Preparation for the next step: high school or college and career readiness**

6.4.5.3 Curriculum Design and Implementation

1. **Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent**
2. **Global and cosmic perspective**
3. **Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs**
4. **Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization**
5. **Three period lesson design**
6. **Activities in self-discovery, self-construction, social life, and community building**
7. **Divergent and high-level thinking, especially through dialogue and discussions**
8. **Providing choice through multi-intelligence and modalities**
9. **Active and experiential learning**
10. **Small and whole group learning experiences**
11. **Elements that support student interdependence and independence in the classroom**
12. **Practical life appropriate to adolescence**
13. **Appropriate use of technology in the Secondary classroom**
14. **Various forms of formative and summative assessment that lead to mastery**
15. **Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.**

6.4.5.4 Adolescent Psychology (*Foundational*)

25. **Early and middle adolescent stages and application in program development**

26. Physical development, including brain development

27. Cognitive development

28. Psycho-social development

29. Moral development

30. Adolescents' concerns and issues and support service

6.4.5.5 Communication and Partnership with Families

1. Teacher as facilitator and model

2. Positive and effective interactions with adolescents

3. Appropriate channels of communication

4. Supporting families and students with cultural sensitivity

5. Community resources for additional support

STUDENT LEARNING OUTCOMES:

The adult learner will create and share specific, classroom-ready products (including routines and practices) that bring their personal teaching practices into further alignment with best practices for Montessori secondary education. They will be able to articulate how and why each proposed product meets a current classroom need and is aligned with both Montessori Philosophy and the needs of the adolescent.

EVALUATION/ASSIGNMENTS:

Daily (high res) or Weekly (low res) assignments and self-evals 182 points (45%)

Includes:

- Successful completion of all required readings and assignments
- Positive participation in all in-person or online course discussions
- Personal reflections on growth and new learnings, with ideas for application
- Group work: final synthesis brainstorming
- Partner work: preparation for student seminar options

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a., 1c, 1d, 2d, 2f, 2h, 2i, 2j, 3a., 3b, 3c, 3d, 3e., 3f.

Classroom-Ready Products and Presentation 218 points (55%)

Includes:

- Submission of 9 products in various categories with written rationale documents to describe connections between the product and adolescent needs, Montessori philosophy, and academic requirements.
- Categories include: Anti-Bias, Anti-Racist teaching practices, classroom routines, teacher and student organization and management principles, and assessment and evaluation

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3a, 3b, 3c, 3d, 3e, 3f,

PEDAGOGY OF PLACE (EDME 516)

High-Residency Model: 50 hours in person

Low-Residency Model: 20 hours online and 36 hours in person

COURSE OVERVIEW:

This course builds on the experiences of the Erdkinder course to teach adult learners the hallmarks of building high-quality field studies which align with curricular aims and meet the needs of the adolescent, providing opportunities for valorization. Adult learners both participate in a pedagogy of place experience (a neighborhood field study) and they build the curricular elements to offer such an experience in their own school settings, from budgets and parent communication, to community building, to lesson planning.

REQUIRED TEXT & RESOURCES:

Last Child in the Woods, by Richard Louv

The Danger of a Single Story, by Chimamanda Adichie

Pedagogy of Place, by Pat Ludick

STANDARDS and COMPETENCIES (bolded standards are addressed in this course)

MACTE Standards:

The adult learner will understand:

- 1a. Montessori Philosophy (and methods)**
- 1b. Human Growth and Development**
- 1c. Subject matter, including cosmic and peace education, practical life, and the arts**
- 1d. Community resources for learning**

The adult learner will understand the following pedagogical elements:

- 2a. Correct use of Montessori materials
- 2b. Scope and sequence of curriculum (spiral curriculum)
- 2c. The prepared environment
- 2d. Parent/teacher/family/community partnership**
- 2e. The purpose and methods of observation**
- 2f. Planning for instruction**
- 2g. Assessment and documentation**
- 2h. Reflective practice**
- 2i. Support and intervention for learning differences**
- 2j. Culturally responsive methods**

The adult learner will demonstrate and implement:

- 3a. Classroom leadership**
- 3b. Authentic assessment**
- 3c. The Montessori philosophy and methods**
- 3d. Parent/teacher/family partnerships**
- 3e. Professional responsibilities**
- 3f. Innovation and flexibility**

AMS Standards:

6.4.5.1 Montessori Philosophy (Core)

- 29. Planes of development**
- 30. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"**
- 31. Montessori's life
- 32. Montessori's concepts and theories including peace and cosmic education.**

- 33. **Montessori in relation to current research and relevance today**
- 34. **Personal growth through self-evaluation**
- 35. **Observation**

6.4.5.2 Classroom Leadership

- 67. Current trends and research in secondary education and adolescent development
- 68. **Montessori Secondary education models**
- 69. **The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)**
- 70. **Creating a physically, psychologically, and developmentally prepared learning environment**
- 71. **Strategies that encourage students to be independent and interdependent**
- 72. **Coaching, mastery, and experiential learning strategies**
- 73. **Supporting positive work habits, such as Habits of Mind**
- 74. **Student leadership and autonomy in the classroom**
- 75. **Community building and group dynamics**
- 76. **Collaboration among adults, including team-teaching and working with an assistant**
- 77. Classroom management consistent with Montessori philosophy
- 78. Student and teacher record keeping
- 79. Various forms of assessment such as observation, written, performance, self, and use of portfolios
- 80. Professional Development
- 81. AMS Suggested Materials List for Secondary Programs
- 82. Awareness of educational regulation
- 83. Preparation for the next step: high school or college and career readiness

6.4.5.3 Curriculum Design and Implementation

- 46. **Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent**
- 47. **Global and cosmic perspective**
- 48. **Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder), service learning opportunities, career exploration, field studies, and cultural exchange programs**
- 49. Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization
- 50. Three period lesson design
- 51. **Activities in self-discovery, self-construction, social life, and community building**
- 52. **Divergent and high-level thinking, especially through dialogue and discussions**
- 53. **Providing choice through multi-intelligence and modalities**
- 54. **Active and experiential learning**
- 55. **Small and whole group learning experiences**
- 56. **Elements that support student interdependence and independence in the classroom**
- 57. **Practical life appropriate to adolescence**
- 58. Appropriate use of technology in the Secondary classroom
- 59. Various forms of formative and summative assessment that lead to mastery
- 60. Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.

6.4.5.4 Adolescent Psychology (*Foundational*)

- 31. **Early and middle adolescent stages and application in program development**

- 32. Physical development, including brain development
 - 33. Cognitive development
 - 34. Psycho-social development
 - 35. Moral development
 - 36. Adolescents' concerns and issues and support service
- 6.4.5.5 Communication and Partnership with Families
- 18. Teacher as facilitator and model
 - 19. Positive and effective interactions with adolescents
 - 20. Appropriate channels of communication
 - 21. Supporting families and students with cultural sensitivity
 - 22. Community resources for additional support

STUDENT LEARNING OUTCOMES:

Adult learners will build a field study for their own schools/classrooms that is ready to be implemented, and which meets both curricular standards and the developmental needs of the adolescent, in keeping with Montessori philosophy for the third plane. Adult learners will be able to articulate for each pedagogical choice the connections between curricular standards, adolescent developmental needs, and Montessori philosophy and methods as they apply to the third plane of development.

EVALUATION/ASSIGNMENTS:

Daily (in person) or Weekly (online) Self and Instructor Evaluation 7%

Includes:

- Personal reflections on growth and new learnings, with ideas for application

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.5

MACTE standards assessed: 1a., 3c, 1c, 2e., 2h., 2j., 3a., 3e., 3f.

Seminar Preparation and Discussion Participation 8%

Includes:

- Successful completion of all required readings, reviewed by instructor
- Positive participation in all in-person or online course discussions

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.5

MACTE standards assessed: 1a., 3c, 1c, 2e., 2h., 2j., 3a., 3e., 3f.

Project: Field Study Creation 64%

Includes submission of the following field study elements:

- Cover sheet, containing academic objectives/standards, matched to theme and adolescent needs/characteristics
- Travel and logistics plans
- Budget
- Planning calendar
- Daily Itinerary
- Daily student assignments
- Student work checklist
- Parent communications
- Lesson Plans for opening and closing experiences

- Seminar pieces, including clustered questions and connections to themes of the field study
- Group Initiative(s)
- Student Leadership Rubric
- Student Self-Assessment Tool
- Service opportunity
- List of remaining logistical work necessary to fully implement the field study

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3b, 3c, 3d, 3e, 3f

Rationale Paper*

21%

Includes:

- A student explanation and reflective self-evaluation of the field study project
- Articulation of how specific elements of the cycle of study connect to Montessori philosophy and the needs of the adolescent, referencing concepts from prior CMStep courses.

*This rationale paper also builds to the final synthesis paper of the training program, which functions as the MEd comprehensive exam for students pursuing graduate credit with Xavier University. This final synthesis is submitted and assessed at the end of all training.

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3b, 3c, 3d, 3e, 3f

PRACTICUM COURSEWORK (NO XU CREDIT)

High-Residency Model: 59 hours in person and 59 hours online

Low-Residency Model: 80 hours online and 50 hours in person

COURSE OVERVIEW:

This year long series of courses encompasses all elements of adult learner's secondary Montessori practicum experience. As a part of their work during Fall Intensive, adult learners will gain an introduction to and experience in Service learning and its connections to cosmic education and adolescent valorization. They will also gain an introduction to the awareness wheel as a tool for conflict resolution and peace education. Adult learners will experience activities that deepen their sense of community and build relationships with their peers, while reflecting on how they will provide similar. Developmentally appropriate experiences for their community of adolescents. Beginning in a Mindfulness Fundamentals Course, and continuing throughout the practicum, adult learners will learn and practice elements of Mindfulness. During Winter Intensive (Minimester 6-7, Low-Residency) participants will have the opportunity to explore what makes secondary Montessori curriculum high quality by sharing their second Cycle of Study, receiving and providing peer feedback, as well explore additional Cycles of Study from previous CMStep community members. Adult learners who complete a Year Long Project will gain guidance and support in designing and implementing a classroom project. This reflective, experiential, supportive practicum process will assist emerging secondary Montessori guides in deepening their understanding of Montessori philosophy, Cosmic Education, and the developmental needs of adolescents.

REQUIRED TEXT & RESOURCES:

- Listening as an Act of Love
- In the Service of Life*,
- Lost Angels: Skid Row is my Home
- Spitwad Sutras*, Robert Inchausti
- To Kill A Mockingbird
- Masters of Love*, Emily Esfahani Smith
- BBC Video: Maria Montessori
- Nurturing the Spirit*, Aline D Wolf
- A New Earth*, Eckhart Tolle

STANDARDS and COMPETENCIES

MACTE Standards:

The adult learner will understand:

- 1a. Montessori Philosophy (and methods)
- 1b. Human Growth and Development
- 1c. Subject matter, including cosmic and peace education, practical life, and the arts
- 1d. Community resources for learning

The adult learner will understand the following pedagogical elements:

- 2a. Correct use of Montessori materials
- 2b. Scope and sequence of curriculum (spiral curriculum)
- 2c. The prepared environment
- 2d. Parent/teacher/family/community partnership
- 2e. The purpose and methods of observation

- 2f. Planning for instruction
- 2g. Assessment and documentation
- 2h. Reflective practice
- 2i. Support and intervention for learning differences
- 2j. Culturally responsive methods

The adult learner will demonstrate and implement:

- 3a. Classroom leadership
- 3b. Authentic assessment
- 3c. The Montessori philosophy and methods
- 3d. Parent/teacher/family partnerships
- 3e. Professional responsibilities
- 3f. Innovation and flexibility

AMS Standards:

6.4.5.1 Montessori Philosophy (*Core*)

1. Planes of development
2. Montessori's ideas regarding educating adolescents, including the concept of "Erdkinder"
3. Montessori's life
4. Montessori's concepts and theories including peace and cosmic education.
5. Montessori in relation to current research and relevance today
6. Personal growth through self-evaluation
7. Observation

6.4.5.2 Classroom Leadership

1. Current trends and research in secondary education and adolescent development
2. Montessori Secondary education models
3. The role of the teacher in the Montessori Secondary classroom (e.g., as facilitator, guide, role model, etc.)
4. Creating a physically, psychologically, and developmentally prepared learning environment
5. Strategies that encourage students to be independent and interdependent
6. Coaching, mastery, and experiential learning strategies
7. Supporting positive work habits, such as Habits of Mind
8. Student leadership and autonomy in the classroom
9. Community building and group dynamics
10. Collaboration among adults, including team-teaching and working with an assistant
11. Classroom management consistent with Montessori philosophy
12. Student and teacher record keeping
13. Various forms of assessment such as observation, written, performance, self, and use of portfolios
14. Professional Development
15. AMS Suggested Materials List for Secondary Programs
16. Awareness of educational regulation
17. Preparation for the next step: high school or college and career readiness

6.4.5.3 Curriculum Design and Implementation

1. Meaningful and thematic curriculum that integrates academic subjects and connects with the adolescent
2. Global and cosmic perspective
3. Elements of a Montessori Secondary program that lead to Valorization, including economic experiences, outdoor education and land-based experiences (Erdkinder),

service learning opportunities, career exploration, field studies, and cultural exchange programs

4. Structures curriculum and learning activities for large blocks of uninterrupted work time to foster 'flow' and deep concentration that leads to normalization
5. Three period lesson design
6. Activities in self-discovery, self-construction, social life, and community building
7. Divergent and high-level thinking, especially through dialogue and discussions
8. Providing choice through multi-intelligence and modalities
9. Active and experiential learning
10. Small and whole group learning experiences
11. Elements that support student interdependence and independence in the classroom
12. Practical life appropriate to adolescence
13. Appropriate use of technology in the Secondary classroom
14. Various forms of formative and summative assessment that lead to mastery
15. Time allotted in daily schedule for student personal reflection/time to be silent and alone with self.

6.4.5.4 Adolescent Psychology (*Foundational*)

1. Early and middle adolescent stages and application in program development
2. Physical development, including brain development
3. Cognitive development
4. Psycho-social development
5. Moral development
6. Adolescents' concerns and issues and support service

6.4.5.5 Communication and Partnership with Families

1. Teacher as facilitator and model
2. Positive and effective interactions with adolescents
3. Appropriate channels of communication
4. Supporting families and students with cultural sensitivity
5. Community resources for additional support

STUDENT LEARNING OUTCOMES:

Throughout the course of their practicum experience, teacher will demonstrate their ability to:

- Articulate the importance of service learning and its relationship to adolescent valorization and cosmic education
- Reflect on the importance of community in secondary environments and create lessons and activities that will build a strong, positive community in their own environment
- Describe their experience with Mindfulness and maintain a consistent daily practice
- Provide appropriate and meaningful feedback to peers regarding their cycles of study
- Reflect on their own personal growth as Montessori curriculum creators by reviewing and evaluating resources from the CMStep website
- Design and implement a Montessori-based classroom project
- Use observation, self-reflection, professional discourse, and/or quantitative/qualitative data to assess the philosophical integrity of his/her Montessori pedagogy
- Evaluate the effectiveness of his/her instructional practices

EVALUATION/ASSIGNMENTS:

Personal reflections on growth and new learning, with ideas for application.

MACTE Standards: 1a, 2h, 3f

AMS Standards: 6.4.5.1, 6.4.5.2

Participation in and reflection on a service learning opportunity.

MACTE Standards: 1b, 1c, 2c, 2j

AMS Standards: 6.4.5.1, 6.4.5.3, 6.4.5.4

Reflections on observations in a variety of Montessori classroom.

MACTE Standards: 1a, 2a, 2c, 2e, 2h

AMS Standards: 6.4.5.1, 6.4.5.2

Thoughtful reflections on Mindfulness practices and resources shared.

MACTE Standards: 1b, 1d, 2h

AMS Standards: 6.4.5., 6.4.5.2

Curriculum sharing and peer review

MACTE Standards: 2b, 2d, 2f, 2g, 2i, 3a, 3b, 3c, 3d, 3e, 3f

AMS Standards: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.5.4.5

Website Search Project

MACTE Standards: 1d, 2h

AMS Standards: 6.4.5.1

Positive participation group discussions that are based on videos and readings.

MACTE Standards: 1a, 1b, 1c, 1d

AMS Standards: 6.4.5.1

Completed exercise and solo time within a work cycle.

MACTE Standards: 1a, 1c, 2h

AMS Standards: 6.4.5.1, 6.4.5.2

A completed Year Long Project, continual reflections throughout the process, and a presentation of work.

MACTE Standards: 1a, 1b, 1c, 2a, 2b, 2f, 2g, 2i, 3a, 3c, 3f

AMS Standards: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.5.4.5

Final Synthesis Paper (Final Examination)

AMS standards assessed: 6.4.5.1, 6.4.5.2, 6.4.5.3, 6.4.5.4, 6.4.5.5

MACTE standards assessed: 1a, 1c, 1d, 2b, 2c, 2d, 2e, 2f, 2g, 2h, 2i, 2j, 3b, 3c, 3d, 3e, 3f