

# Fitchburg State University Comprehensive Syllabus

Summer \_\_\_\_\_

Course Prefix and Number: PRDV 6064E

UDL-ifying your Middle School Math Practice

3 Credit hours

Online; dates TBD (summer \_\_\_\_\_)

Number of Class Meetings: 8 (online); Number of Contact Hours 37.5

**Instructors:** Thea Durling

**Office:**

**Telephone:** thea.durling@gmail.com

**FAX:** n/a

**Office Hours:** n/a

## A. **COURSE DESCRIPTION:**

The focus in the course is on using the principles of Universal Design for Learning (UDL) to revise current practice for teachers of middle school mathematics, with an emphasis on working with the Eureka Math and Illustrative Math curricula. Teachers also explore the use of technology as a means of implementing and improving UDL practice, while leaving the course with a fully revamped unit that serves as a model of how to decrease full-class instruction in the middle school math classroom.

The course uses a combination of materials (online, printable, multi-media) to help the participants build a shared background and language in each Module. Participants demonstrate understanding of the material by creating various products (i.e., a revised homework assignment or practice, a revised assessment, a blog post) and by participating in online discussions in Canvas.

The course is designed to provide participants with an option to engage in professional development in Universal Design for Learning in a flexible, online structure as an alternative or an additional experience for summer PD.

***If you plan on matriculating into a graduate program at Fitchburg State University, please be aware that twelve semester hours of Fitchburg State University credit taken within a year prior to the student's admission may be applied to the degree program with the approval of the program chairperson. Anything over 12 credits prior to matriculation will NOT be accepted towards the degree.***

## B. TEXTS:

CAST. (2014.) *Universal Design for Learning: theory and practice*. Wakefield, MA: Cast Professional Publishing.

Novak, K., & Thibodeau, T. (2016). *UDL in the cloud: How to design and deliver online education using universal design for learning*. Wakefield, MA: Cast Professional Publishing.

Novak, K., & Rose, D. H. (2016). *UDL now!: A teacher's guide to applying universal design for learning in today's classrooms*. Wakefield, MA: Cast Professional Publishing.

Fitchburg State University Teacher Preparation Programs. (2018). *Conceptual framework*. Fitchburg, MA: Author. [Online] Available:

<http://www.fitchburgstate.edu/offices-services-directory/education-unit/conceptual-framework/>

Massachusetts Department of Elementary and Secondary Education. (1999-2011). *Curriculum frameworks*. Malden, MA: Author. [Online] Available:

<http://www.doe.mass.edu/frameworks/current.html>

## Fitchburg State University Teacher Education Conceptual Framework



## A. LEARNING OUTCOMES / OBJECTIVES:

This course will address the Conceptual Framework in the following way(s):

**Knowledge:** As a result of the learning experiences in the course, you will strengthen your understanding of:

- what UDL is and where you are as an educator in your understanding of UDL (**Discussion #1**)
- education technology tools that support your UDL implementation
- how hyperdocs can assist teachers in developing meaningful lessons/units
- how UDL and education technology can assist teachers in transforming homework (**Project #1**)

- how to support student executive functioning and self-regulation by restructuring the classroom culture **(Project #2)**
- the barriers in mathematics program (such as Eureka or Illustrative) and at the school level, as well as ways to begin overcoming those barriers **(Discussion #2)**
- how to design math instruction to releasing responsibility to the students by being full engaged as an expert in the content **(Project #3)**
- how to create a seamless assessment experience **(Discussion #3)**
- how to universally design preparation for tests/assessments so students can access them successfully **(Project #4)**
- how to collect, respond to, and integrate feedback **(Project #5)**

**Skill:** As a result of the learning experiences in the course, teachers will gain confidence in the implementation of the Universal Design for Learning (UDL) framework as a tool to foster student choice, voice and capacity to create better learning opportunities and outcomes for their students, specifically in middle school math courses.

**Caring:** As a result of the learning experiences in the course, you will become more competent in your ability to:

- reach all students when instructing using the UDL framework
- reach all students when preparing for assessments using the UDL framework
- reach all students when developing projects using the UDL framework
- reach all students when planning lessons/units using the UDL framework
- gather feedback from students/parents to improve use of UDL framework

**Ethical:** As a result of the learning experiences in the course, participants will better understand how traditional instruction may prevent some candidates from learning and engaging in the curriculum.

C. **INSTRUCTIONAL STRATEGIES** [Place an X for each strategy you use while teaching this course.]

<input type="checkbox"/> Lecture	<input type="checkbox"/> Data Collection and Analysis
<input checked="" type="checkbox"/> Discussion/Questioning	<input type="checkbox"/> Pre-Practicum
<input type="checkbox"/> Laboratory	<input type="checkbox"/> Role Playing/Simulation
<input type="checkbox"/> Problem Finding/Solving	<input checked="" type="checkbox"/> Independent Learning
<input checked="" type="checkbox"/> Discovery	<input type="checkbox"/> Field Trips
<input type="checkbox"/> Interviewing	<input checked="" type="checkbox"/> Computer Applications
<input checked="" type="checkbox"/> Collaborative Learning Groups	<input type="checkbox"/> Viewing or Listening to Followed by
<input checked="" type="checkbox"/> Reflective Responses	<input type="checkbox"/> Discussing
<input checked="" type="checkbox"/> Creating Visual Illustrations of Concepts	<input type="checkbox"/> Other _____

**Technology Initiatives:**

Users of the Fitchburg State University technology systems are subject to all applicable federal, state, and international technology laws. Questions regarding regulations may be directed to the Office of Information Technology.

Candidates will utilize technology as:

- a means to encourage student executive function and self-regulation
- a means to inform and improve their teaching practice
- an enhancement tool for the design of lessons and curriculum units
- a way to communicate with instructor, complete assignments & collaborate with peers

#### **D. COURSE REQUIREMENTS:**

This course will run from June 3, 2019 until August 16, 2019. This course requires participants to be engaged and prepared for each and every assignment. The course will be a combination of (optional) face-to-face and electronic instruction (i.e., FaceTime) and online engagement. Participants will be expected to pass in work by the due date, but will also be given the opportunity to revise and improve upon their work (just as students in their class should be given the same respect using the UDL framework). Students are expected to perform two hours of work outside of class for every hour spent in class.

**Module 0** June 3 - June 9; Introductions

**Module 1** June 10 - June 16

- **Discussion #1** - Participants will share out with the group what they have learned about Universal Design for Learning (UDL). They will reflect on their current practice in light of areas of strength in UDL implementation and areas of growth. Responses can be in the form of written reflection, visuals, video or audio or a multimedia presentation.

**Module 2** June 17 - June 23

- **Project #1** - Participants will evaluate the type of homework regularly assigned to students and design some examples of alternatives as they work to bring choice to homework to increase student engagement. Participants will create an authentic document for student use in the middle school classroom.

**Module 3** June 24 - June 30th (one week break for the holiday week, July 1 - July 7)

- **Project #2** - Participants will look at ways to restructure their teaching practice to increase student engagement through the use of non-teacher-center work such as Centers, Stations, and (Math) Workshop. Participants will create an authentic plan for integrating these activities, such as a plan for a day of Centers or a hyperdoc for a day of Stations.

**Module 4** July 8 - July 14

- **Discussion #2** - Participants will identify barriers in their middle school math curriculum that prevent all students from experiencing success in middle school math. Participants will also begin to brainstorm solutions to overcoming those barriers.

**Module 5** July 15 - July 21

- **Project #3** - Participants revise or create a new lesson/unit with the goal of reducing full-class instruction and replacing it with student efficacy, without losing content mastery. Participants will plan out a full experience, from data collection to assessments, while focusing on the part that students will see at this stage.

**Module 6** July 22 - July 28

- **Discussion #3** - Participants will plan and drafts a series of assessments for a given unit of study, including both “quizzes” and larger assessments. The goal of this discussion is to design the assessments as a coherent experience that allows teachers to match assessment to content over the course of a unit.

**Module 7** July 29 - August 4

- **Project #4** - Teachers will transform a traditional assessment, or design one from scratch, and apply the principles of UDL so more students can succeed and incorporate critical habits of mind.

**Module 8** August 5 - August 16 (final work due to instructor)

- **Project #5** - Participants will reflect on their understanding of how students and/or parents can both inform and improve their teaching practice. They will either:
  - Create a survey tool where they ask students to provide mastery-oriented feedback to teachers on curriculum, instruction, classroom environment or level of engagement. Reflect on the possible results and consider how those results will improve their teaching practice.
  - Create a resource that they can share with students that helps them build a growth mindset as students consider what they could do differently to improve their approach or preparation to the course.
  - Design a lesson where they teach students how to provide them with feedback.
  - Develop a system for students' parents to express their feedback about curriculum, instruction, homework, etc.

**Final wrap up** (72 hours after end of course)

E. **FIELD-BASED REQUIREMENTS:** n/a

F. **EVALUATION OR GRADING POLICY:**

Activity	Percentage	Point Value
Project #1: Integrating choice into homework	17%	90
Project #2 : Addressing variability through restructuring	17%	90
Project #3: Using student-centered instruction	17%	90
Project #4: Universally Designed Assessments	17%	90
Project #5: Feedback and Reflection	17%	90
Discussion 1: Self-assessment on UDL	5%	3
Discussion 2: Identify and eliminate barriers in math curricula	5%	3
Discussion 3: Incorporating data cycles and revision into your practice	5%	3

**FITCHBURG STATE UNIVERSITY  
GRADUATE GRADING SYSTEM**

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<b>4.0</b>	95 - 100	A
<b>3.7</b>	92 - 94	A-

<b>3.5</b>	89 - 91	A-/B+
<b>3.3</b>	86 - 88	B+
<b>3.0</b>	83 - 85	B
<b>2.7</b>	80 - 82	B-
<b>2.5</b>	77 - 79	B-/C+
<b>2.3</b>	74 - 76	C+
<b>2.0</b>	71 - 73	C
<b>0.0</b>	0 - 70	F
<b>W</b>	Withdrawn	
<b>IN</b>	Incomplete	
<b>IP</b>	In-Progress	

## G. RUBRICS

### Project Rubrics

Criteria	Ratings			Pts
This criterion is linked to a Learning Outcome Content	30.0 pts The product exceeds the objective of the assignment by carefully expressing content appropriate for task, purpose, and audience	20.0 pts The product meets the objective of the assignment by expressing content that is appropriate for task, purpose, and audience	10.0 pts The product is close to meeting the objectives of the assignment but the task, purpose, or audience don't align well to the task	30.0 pts
This criterion is linked to a Learning Outcome Organization	30.0 pts Regardless of the format of the assignment, ideas are logically organized and developed; transitions easily connect content and ideas	20.0 pts Regardless of the format of the assignment, ideas are logically organized and developed; there are some missing transitions which may be confusing	10.0 pts The product proceeds logically but some transitions or organization problems impede flow organization	30.0 pts

This criterion is linked to a Learning Outcome UDL Application	30.0 pts	20.0 pts	10.0 pts	30.0 pts
	Practical application of UDL principles is established.	Some practical application of UDL principles is established. Aspects from at least 2 networks are present.	Very little practical application of UDL principles is established. Aspects from one network are present.	
	Aspects from all three networks are present.			

## H. COURSE CONTENT/TOPICAL OUTLINE

Date	Topic	Reading	Activity/Project
<b>Module 1</b>	What is UDL? Why UDL?	Students choose from the following readings/videos to learn about UDL and to self-assess their current practice <ul style="list-style-type: none"> <li>● UDL Guidelines</li> <li>● What is UDL? Educator Fact Sheet</li> <li>● UDL for Understood.org</li> <li>● Exploration: UDL Guidelines</li> <li>● Dinner Party Analogy</li> <li>● Learner Variability and Universal Design for Learning</li> <li>● Video: UDL at a Glance</li> <li>● UDL Progression Rubric</li> <li>● UDL Guidelines</li> </ul>	Discussion #1
<b>Module 2</b>	Integrating Choice in Homework	Students choose from the following readings/videos to learn about transforming education through UDL <ul style="list-style-type: none"> <li>● What's the future of education?</li> <li>● 4 tenets of re-envisioning education</li> <li>● Do Schools Kill Creativity?</li> <li>● Re-Envisioned</li> <li>● 8 key executive functions</li> <li>● Things about dyslexia that every teacher needs to know.</li> <li>● Dyslexia</li> <li>● Stop Penalizing Boys for Not Being Able to</li> </ul>	Project #1

		<p>Sit Still at School</p> <ul style="list-style-type: none"> <li>● Learning is so much more than "learning styles."</li> <li>● Supporting nonbinary students is not an option. It's a necessity.</li> <li>● This Teen's Story Will Change the Way You Think About Mental Illness</li> <li>● What's the Solution?</li> <li>● The Simple Key to Helping Traumatized Children Overcome Their Barriers</li> </ul>	
<b>Module 3</b>	Addressing Variability with Class Restructuring	<p>Students choose from the following readings/videos to learn about the Variability of Learners, Executive functioning, Student self regulation and persistence, and Adding homework options</p> <ul style="list-style-type: none"> <li>● Variability Matters</li> <li>● Learner variability</li> <li>● Addressing the Variability of Learners in Common Core Aligned Assessments</li> <li>● Learner variability</li> <li>● Executive Function 101</li> <li>● 8 executive functions</li> <li>● Executive functioning issues</li> <li>● Self regulation</li> <li>● Positive time-out</li> <li>● Encouraging self regulation in the classroom</li> <li>● Adding Options</li> </ul>	Project #2
<b>Module 4</b>	Identifying and Eliminating Barriers in Middle School Math	<p>Students choose from the following readings/videos to learn about barriers in education</p> <ul style="list-style-type: none"> <li>● Universal Design for Learning: Meeting the Needs of All Students</li> <li>● 5 Ways to Help Your Students With Overcoming Learning Barriers</li> <li>● "Your school may be the biggest barriers to inclusive practice"</li> <li>● ASCD InService</li> </ul>	Discussion #2

<b>Module 5</b>	Building Student Self-Efficacy	<p>Students choose from the following readings/videos to learn about Expert Learners and Options for instruction</p> <ul style="list-style-type: none"> <li>● What is an expert learner?</li> <li>● Creating Expert Learners in Every Classroom</li> <li>● Continuum of developing expert learners</li> <li>● Helping Students become Expert Learners</li> <li>● What is an expert learner?</li> <li>● Baby Steps #1: Options for Instruction</li> </ul>	Project #3
<b>Module 6</b>	Data Cycles and Revision	<p>Students choose from the following readings/videos to learn about the Every Student Succeed Act, Standardized testing through a UDL Lens and Breaking through assessment barriers</p> <ul style="list-style-type: none"> <li>● Six Ways ESSA Will Improve Assessments</li> <li>● Perspectives on UDL and Assessment</li> <li>● Using UDL to Accurately Assess Student Progress,</li> <li>● brief on PARCC Accommodation, and brief on Smarter Balanced assessment</li> <li>● 10 UDL Tips for Assessment</li> <li>● Durham College's page on how UDL can be used in college assessments</li> <li>● Addressing the Variability of Learners in Common Core Aligned Assessments</li> <li>● Baby Step #2: Changes to Test Format</li> <li>● Reflecting on student feedback–Exam Wrappers</li> <li>● Baby Steps #4: Resource Sheets</li> </ul>	Discussion #3
<b>Module 7</b>	Universally Designed Assessments	<ul style="list-style-type: none"> <li>● Same readings as Module #6</li> </ul>	Project #4
<b>Module 8</b>	Feedback and Reflection	<p>Students choose from the following readings/videos to learn about Growth Mindset, leveraging feedback and direct</p>	Project #5

		<p>interactive instruction</p> <ul style="list-style-type: none"> <li>● False Growth Mindset</li> <li>● How Not to Talk to Your Kids</li> <li>● Growth Mindset Feedback Tool</li> <li>● Interview with Carol Dweck</li> <li>● NPR story “Does teaching kids to get gritty really help them to get ahead”</li> <li>● Carol Dweck - The Power of Yet</li> <li>● Why Kids Should Grade Teachers</li> <li>● Feedback is Critical to Professional Growth</li> <li>● Tripod Project website</li> <li>● 3 Ways of Getting Student Feedback to Improve Your Teaching</li> <li>● Model Student surveys</li> <li>● Measures of Effective Teaching: Student Feedback</li> <li>● 4 core components of direct interactive instruction</li> </ul>	
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Fitchburg State University encourages all Extended Campus students to take advantage of our online student services. We have created a “virtual student center” just for you. Here you will find access to Counseling Services, Career Services, The Student Activity Center, the university bookstore and many other helpful links. You can access our student center by going to the university homepage at <http://www.fitchburgstate.edu> and clicking on Offices and Services. Scroll down and click on Extended Campus Center. You will find links to Library Services, our Virtual Student Center and other important information.

**FITCHBURG STATE UNIVERSITY  
DISTANCE LEARNING & EXTENDED CAMPUS LIBRARY SERVICES**

The Gallucci-Cirio Library at Fitchburg State University provides a full range of library services including borrowing privileges; document delivery (books and articles mailed to your home); Interlibrary Loan; reference assistance via: phone, email, IM, Blackboard’s Collaborate tools, Skype and in-person; library instruction via online and in-person at extended campus sites; research help and more. Any questions relating to library services should be directed to the E-Learning & Instruction Librarian, at 978-665-3062 or [dllibrary@fitchburgstate.edu](mailto:dllibrary@fitchburgstate.edu). There is also a special section for Distance Learning and Extended Campus Services at <http://fitchburgstate.libguides.com/dlservices> outlining the wide range of services available to you and how to access them. Activate your library account online through our ILLiad

system at <https://fitchburgstate.illiad.oclc.org/illiad>; from here you can access article, book, and media request forms to get items from our library and from other libraries. If you haven't used ILLiad before, you will need to click on the "First Time User? Create Your Account" link and set up your account.

Students who are currently registered with the university may access any of the library's subscription databases, including an increasing number with full-text, by visiting the Gallucci-Cirio Library's homepage at <http://www.fitchburgstate.edu/academics/library> and clicking on the Research Databases button in the center of the page. Select the resource you want to access from the alphabetical or subject listing. Once you click on the database title you will be prompted for your Falcon Key logon information; this is the same logon you will use for your Fitchburg State email account and if you have any online Blackboard courses. If you do not know your Falcon Key username and password or if you have any problems logging in, contact the university's Technology Help Desk at 978-665-4500 or [helpdesk@fitchburgstate.edu](mailto:helpdesk@fitchburgstate.edu). The Library can issue you a temporary guest login to access the library's databases while the Technology Department is setting up your account: contact us at 978-665-3062 or [dllibrary@fitchburgstate.edu](mailto:dllibrary@fitchburgstate.edu)

All registered Fitchburg State University students are eligible for a Fitchburg State University OneCard ID which also serves as his/her library card. If you have not received your OneCard yet, you can still access all of our online services as long as you have activated your library account through ILLiad. After activation by the Gallucci-Cirio Library and receipt of your OneCard, students may access participating Massachusetts State College/University Libraries and you may request an ARC Card to access participating libraries in the Academic and Research Collaborative (ARC) during the current semester. OneCards are available on campus all year round. Students wanting a OneCard must either complete the online Extended Campus OneCard request form at <http://www.fitchburgstate.edu/offices-services-directory/onecard/extended-campus-onecard/> or present a course registration confirmation at the One Card Office in the Anthony Building of the main campus. Please call 978-665-3039 for available times or if you have any questions about your One Card.

## **UNIVERSITY AND EDUCATION UNIT POLICIES**

### **Policy on Disability**

Disability Services is the primary support system for students with disabilities taking classes in the day and evening divisions. The office is located on the third floor of the Hammond Building and can be reached at 978-665-4020 (voice/relay). If you need course adaptations or accommodations because of a disability, if you have emergency medication information, or if you need special arrangements in case the building must be evacuated, please make an appointment at the beginning of the course to talk with me. It is important that the issues relating to disabilities be discussed with me as soon as possible.

### **Attendance and Participation**

1. As an emerging professional, you are expected to attend every class session, to be on time, and to communicate with the instructor regarding any absences. Absences and tardiness may result in a permanent grade change. Attendance at all pre-practicum sessions is mandatory.
2. Participation in class discussions and cooperative groups is expected. All candidates are responsible for meeting required deadlines on projects and assignments; your ability to complete tasks in a timely fashion demonstrates professional maturity and an ability to organize and manage time. Completion of assigned reading is imperative to your individual development as a professional.
3. All of these behaviors regarding attendance, preparation, and meeting deadlines are critical for successful teaching and thus are factored into the final grade.

### **Education Unit Computer Literacy Requirement**

All assignments must be typed, doubled-spaced, and use APA format when appropriate. Refer to Internet Resources for Writing on the Fitchburg State University website for assistance.

You are expected to use word processing for all assignments (unless otherwise instructed). [If your course has other requirements list those also, e.g., ‘You are expected to use e-mail for dialogues with other class members, to examine the use of software in the field, and to use the Internet to obtain information, ideas and resources.’]

### **Cellular Telephones and Other Devices**

Kindly turn-off cellular telephones during class time and field experiences and place them in book bags or purses. Please no texting in class. It reflects negatively upon you as a developing professional. Once class begins and if use of the laptop is not required, all laptops should be closed during class time so that your full attention can be focused on your colleagues and the discussion or lecture in progress. If you prefer to take class notes on your laptop, please inform the instructor. You are on your honor to be focused on note taking and not on e-mail, Facebook or other technological enterprise not germane to the class in progress. Thank you in advance for your consideration of colleagues and students.

### **Grade Appeal**

If you disagree with the evaluation of your work or believe an improper grade has been assigned, an appeal may be followed. Please discuss the matter with the instructor and refer to the Fitchburg State University Grade Appeal Policy in your Student Handbook located:

at [http://www.fitchburgstate.edu/uploads/files/EducationUnit\\_NCATE/Standard2/narrative/Student\\_Handbook\\_Web\\_1213.pdf](http://www.fitchburgstate.edu/uploads/files/EducationUnit_NCATE/Standard2/narrative/Student_Handbook_Web_1213.pdf)

### **Academic Integrity Policy**

The faculty in the Education Unit at Fitchburg State University that work submitted in fulfillment of course requirements will be solely that of the individual candidate and all other sources will be cited appropriately. University Academic Integrity Policy, as outlined in the University Catalogue, will be strictly adhered to.

### **Copyright Policy**

You are reminded that, in preparing handouts for peers or the instructor, reproduction of copyrighted material without permission of the copyright owner is illegal. Such unauthorized copying may violate the

rights of the author or publisher. Fitchburg State University adheres to federal laws regarding use of copyrighted materials. See the Electronic Use of Copyrighted Materials on the Fitchburg State University website for more details.

## **I. READING AND RESOURCES**

Novak, K., & Thibodeau, T. (2016). *UDL in the cloud: How to design and deliver online education using universal design for learning*. Wakefield, MA: Cast Professional Publishing.

Novak, K., & Rose, D. H. (2016). *UDL now!: A teacher's guide to applying universal design for learning in today's classrooms*. Wakefield, MA: Cast Professional Publishing.

blog: <http://katienovakudl.com/>

blog: <http://theadurlingudl.org/>

<http://www.cast.org/>

[http://udlguidelines.cast.org/?utm\\_medium=web&utm\\_campaign=none&utm\\_source=cast-home](http://udlguidelines.cast.org/?utm_medium=web&utm_campaign=none&utm_source=cast-home)

## **J. FURTHER RECOMMENDATIONS:** n/a