# University of North Texas at Dallas Spring 2016 SYLLABUS

F	DCI 5	310D 0		LABUS itent Knowledge in L	ife Science /3Hrs		
E		5100 0		ttent Knowledge in L			
Department of			eacher Education	Division of	Education and Human Services		
Instructor Nam	6•	Dr	Ratna Naravan				
Office Location:			Dr. Ratna Narayan 201 N Dallas 1				
Office Phone:		972	972 780 1340				
		9A1	Cell Phone: 806 252 5277 Phone calls/texts to my cell are welcome between 9AM and 10 PM daily and replies can be expected within no more than 24 hours.				
Email Address:		Rat	na.narayan@untd	allas.edu			
Office I Hours:							
Virtual Office Hours:	e Call or email						
Classroom Loca	ation	Dallas	1 262				
Class Meeting Days & Times:			Monday 5:30 – 8:20 pm				
Course Catalog Description: Prerequisites:							
Co-requisites:	None						
Required Text:			Life Science first ec Investigations into I				
<b>Recommended Text and References:</b> Inquiry and the National Science Education Standards A guide for Teaching and Learning.			e Education Standards A guide				
Access to LearningUNT Dallas Library: phone: (972) 780-3625; web: http://www.unt.edu/unt- dallas/library.htmUNT Dallas Bookstore: phone: (972) 780-3652; e-mail: 1012mgr@fheg.follett.com							

**Course Goals or Overview**: Participants will gain Pedagogical content knowledge in Life Sciences through which they can professionally develop themselves and teach Life Science effectively at the K-8 level. Weekly topics chosen will be well integrated with grade relevant Life Science topics to stress the development of pedagogical science content knowledge as it pertains to teaching and learning Life Science at the K-8 level.

Learn	<b>Learning Objectives/Outcomes:</b> At the end of this course, the student will be able to:				
1	To become familiar with current national and state educational reform efforts those include				
	the National Science Education Standards, the Benchmarks for Science Literacy, and the Texas				
	Essential Knowledge and Skills_and to use these standards in lesson and unit planning.				
2	To develop and implement Life Science lessons that use student-centered forms of instruction				
	such as cooperative group work, inquiry, the use of writing in science, and methods of teaching				
	for conceptual change.				
3	To develop an understanding of life science content and pedagogical content knowledge at the K 8				
	level.				
4	Develop and understanding of students' preconceptions and misconceptions in Life Science				
	content at the K-8 level.				

#### Course Outline

Jan 25 <sup>th</sup>		SLO's	
2015	The Nature of Science and its Relevance to Science and Science	1	
	Teaching		
Feb 1st	Studying Life, living things, classifying living things	2-4	
Feb 8th	Organisms and the environment 2-4		
Feb 15th	Cell Biology	2-4	
Feb 22rd	Cell Structure and function	2-4	
Feb 29th	Genetics	2-4	
Mar 7th	Science model presentations		
Mar 14th	UNT Dallas spring break		
Mar 21st	Work day		
Mar 28th	Controversial issues in science presentation	1-4	
Apr 4th	Evolution and Change	2-4	
Apr 11th	Structure and function in living things : Plants	2-4	
Apr 18th	Structure and function in living things : Animals		
Apr 25th	The Human Body		
May 2nd	Science Presentations 1-4		
	Last day of class		

# **COURSE EVALUATION METHODS**

## **GRADING MATRIX**

Instrument	Weight / SLOs	Notes
Controversial issues	SLOs 1-4	Pick a controversial issue in science, get it approved, and
presentation		present both the pros and cons of the issue regardless of
Are the pros and cons	50	what your individual beliefs are to your peers. Provide
well presented?		some history to the issue, how and why did this issue prove
History of the	20	to be controversial? Explain specific science content
controversial issue?		relevant to the issue. Given the current climate in Texas
Specific Science	50	how would you explain the issue to 8 <sup>th</sup> grade and 8 <sup>th</sup> grade
content explained, part		students/ parents?
of resource folder.		I am expecting a through presentation, on the date
How to explain to	10	assigned, no re-dos, use a board or a power point and a
students/ parents		handout for peers.
Presentation skills	<u>10</u>	You will be presenting this to the 8 <sup>th</sup> and 9 <sup>th</sup> graders from
	Total 140	Girls Inc in June
Life Science Model	SLOs 1-4	You will pick a life science concept and construct a model/
Presentation		working model with materials available easily/ that can be
Model and how it is	50	easily replicated. You will present the model to your peers,
constructed		explain the concept and the science content terms that will
Specific Science	50	form part of the resource folder, Explain the limitations of
content explained,		the model and how to use the model as an assessment tool.
Presentation		I am expecting a through presentation, on the date
	20	assigned, no re-dos, use a board or a power point and a
	Total 120	handout for peers.
<b>Resource Guide for</b>	SLOs 1-4	You will visit the Arboretum for this assignment and will
the Dallas Arboretum		create this assignment using google docs
		Each student will be assigned a particular gallery in the
		Children's Garden and will create a Resource Guide for
		students for that gallery.
		<b>Resource Guide Components:</b>
	10	Introduction to the exhibit (1 page) with pictures
		* Literature
	15	
		includes book information, ISBN, brief description of book, and how the book relates to the gallery ( 3 children's books)
		* Visual Glossary (20 terms)

	40	o vocabulary with definition
		o w/ citation of images
	20	* Websites ( minimum 3 websites) with link and description
	15	* Take Action
		* Activities
	20	o 1 activity for students and their parents
	20	o 1 activity for the classroom
	<u>30</u>	o 1 activity for their time at the Arboretum with 5E lesson plan that includes the activity with differentiation for a grade below and interdisciplinary connections
	Total 170	
Resource guide for the Dallas zoo		You will visit the Dallas zoo for this assignment and will create this assignment using google docs Each student will be assigned a particular exhibit row at the Dallas zoo and will create a Resource Guide for students for that exhibit row( relevant to the grade level they teach, one grade above and below)
		<b>Resource Guide Components:</b>
		Introduction to the exhibit (1 page) with pictures
	10	* Literature
	15	includes book information, ISBN, brief description of book, and how the book relates to the gallery ( 3 children's books)
		* Visual Glossary (20 terms)
	40	o vocabulary with definition
		o w/ citation of images
		Also:
	10	1. a brochure,

	10	2. clue game,
	20 20	<ul><li>3. scavenger hunt,</li><li>4. vocabulary games</li></ul>
	15	5. a hands-on activity related to the exhibit ( this will include directions and a list of materials and prices)
	30	6. 5E lesson plan that includes the activity with differentiation for a grade below and interdisciplinary connections
	Total 170	
Assignments Inc	100	These will be generic assignments you will do every week. It can include presenting, chapter summary, activities anything goes!

### **Grading Scheme:**

700 - 630 = A629 - 560 = B559 - 490 = C489 - 420 = DBelow 419 = F

#### **Class Participation – Expectations**

- 1. ATTENDANCE Attend all classes, meetings, etc. arriving on time.
- 2. PREPARATION Be prepared to discuss assigned readings and submit assignments according to established deadlines.
- 3. PARTICIPATION Contribute constructively and respectfully to all discussions and activities.
- 4. RESPECT Do not talk while the teacher or another presenter is speaking.
- 5. ACADEMIC HONESTY Know and follow course, departmental, program and university policies on assignments and assessments.
- 6. PROFESSIONALISM Know and follow departmental, program and university policies expected of PDS students.
- 7. Participation and Professionalism CRITICAL!
  - a. Absences and tardies will count toward final grade reduction: 2 absences = one final grade reduction, 4 absences = two final grade reductions, 5 absences = three grade reduction, please make arrangements to retake the class another semester
  - b. Three tardies = 1 absence. (Tardy must arrive within the first 10 minutes of class)
  - c. Completes assigned readings before coming to class
  - d. Answers questions and participates in class discussions
  - e. Avoid social or unrelated conversation, working on other assignments, using cell phone, checking email, surfing web, playing video games during class time etc.

# 8. You are expected to be present in class and on time especially on presentation dates. If you arrive late you will lose 25% of the assigned points.

## **University Policies and Procedures**

#### Students with Disabilities (ADA Compliance):

The University of North Texas Dallas faculty is committed to complying with the Americans with Disabilities Act (ADA).

"Any student requesting academic accommodations based on a disability are required to register with Disability Services each semester. A letter of verification for approved accommodations can be obtained from this office. Please be sure the letter is delivered to me as early in the semester as possible. Disability Services is located in DAL 2, Room 204 and is open 8:30-5:00p.m., Monday through Friday. The phone number is (972) 338-1777."

<u>Students' with documented disabilities are responsible for informing faculty of their needs for</u> reasonable accommodations and providing written authorized documentation. For more information, you may visit the Office of Disability Accommodation/Student Development Office, Suite 115.

#### **Student Evaluation of Teaching Effectiveness Policy:**

The Student Evaluation of Teaching Effectiveness (SETE) is a requirement for all organized classes at UNT. This short survey will be made available to you at the end of the semester, providing you a chance to comment on how this class is taught. I am very interested in the feedback I get from students, as I work to continually improve my teaching. I consider the SETE to be an important part of your participation in this class.

#### **Assignment Policy:**

<u>All assignments are compulsory. There are no exceptions to this rule</u>. Please refer to the assignment expectations document for details about each assignment and its due dates. <u>Late assignments will result in a 5 point reduction for each day late</u>.

If I am not satisfied with an assignment response, I reserve the right to deduct points and return it to you so you may improve on it and resubmit to get some of the deducted points back if the work is deemed satisfactory. <u>All assignments are due by 5pm May 5<sup>th</sup> 2016</u> after which NO assignments will be accepted or graded.

#### **Exam Policy:**

Exams should be taken as scheduled. No makeup examinations will be allowed except for documented emergencies (See Student Handbook).

#### **Academic Integrity:**

Academic integrity is a hallmark of higher education. You are expected to abide by the University's code of conduct and Academic Dishonesty policy. Any person suspected of academic dishonesty (i.e., cheating or plagiarism) will be handled in accordance with the University's policies and procedures. Refer to the Student Code of Conduct at <u>http://www.unt.edu/csrr/student\_conduct/index.html</u> for complete provisions of this code.

Please take the time to go through this link. If I find you have plagiarized from any source without giving them due credit I will give you a zero for that assignment.

#### **Bad Weather Policy:**

On those days that present severe weather and driving conditions, a decision may be made to close the campus. In case of inclement weather, call UNT Dallas Campuses main voicemail number (972) 780-3600 or search postings on the campus website <u>www.unt.edu/dallas</u>. Students are encouraged to update their Eagle Alert contact information, so they will receive this information automatically.

#### **Attendance and Participation Policy:**

The University attendance policy is in effect for this course. Class attendance and participation is expected because the class is designed as a shared learning experience and because essential information not in the textbook will be discussed in class. The dynamic and intensive nature of this course makes it impossible for students to make-up or to receive credit for missed classes. Attendance and participation in all class meetings is essential to the integration of course material and your ability to demonstrate proficiency. Students are responsible to notify the instructor if they are missing class and for what reason. If I have not heard from you and receive supporting documentation for your absence, I shall consider it an unexplained absence. Two such absences will reduce your overall grade by a letter grade irrespective of the points you might make. Students are also responsible to make up any work covered in class. It is recommended that each student coordinate with a student colleague to obtain a copy of the class notes, if they are absent. If you have missed a class, please make an appointment to meet me so we can determine what needs to be done to make up the lost time. If you are absent on a presentation day you will get zero points for that assignment.

#### **Diversity/Tolerance Policy:**

Students are encouraged to contribute their perspectives and insights to class discussions. However, offensive & inappropriate language (swearing) and remarks offensive to others of particular nationalities, ethnic groups, sexual preferences, religious groups, genders, or other ascribed statuses will not be tolerated. Disruptions which violate the Code of Student Conduct will be referred to the Center for Student Rights and Responsibilities as the instructor deems appropriate.

#### **Optional Policies:**

#### Use of WebCT/Blackboard

I will expect you to use Blackboard to upload your assignments and I will give you feedback on those on Blackboard. Please monitor these for additional comments I give or information I require.

#### Use of Cell Phones & other Electronic Gadgets in the Classroom

Please do not use your cell phones in class. If it is an emergency, I will permit you to leave class and take the call. If I see you texting or playing videogames or checking your email in class I will drop you a letter grade.

#### Food & Drink in the Classroom

I do not mind food and drink in the classroom, however when we are conducting an activity, I will expect all food and drink to be put away immediately. All food and drinks must be properly disposed of.

#### **Use of Laptops**

If I need you to use a laptop during class I will take you to the computer lab.

#### Grade of Incomplete, "I"

A grade of incomplete, "I" will be given only under extenuating medical circumstances.