

**NORTHCENTRAL UNIVERSITY  
ASSIGNMENT COVER SHEET**

Learner: **Steven Diaz**

**THIS FORM MUST BE COMPLETELY FILLED IN**

**Please Follow These Procedures:** If requested by your mentor, use an assignment cover sheet as the first page of the **word processor** file. Use "headers" to indicate your course code, assignment number, and your name on each page of the assignment/homework including this assignment cover sheet. .

**Keep a Photocopy or Electronic Copy Of Your Assignments:** You may need to re-submit assignments if your mentor has indicated that you may or must do so.

**Academic Integrity:** All work submitted in each course must be the Learner's own. This includes all assignments, exams, term papers, and other projects required by the faculty mentor. The knowing submission of another persons work represented as that of the Learner's without properly citing the source of the work will be considered plagiarism and will result in an unsatisfactory grade for the work submitted or for the entire course, and may result in academic dismissal.

**LTM5010**

**Dr. Anthony Pellegrini**

**E-Learning: Theory and Process**

**Assignment 2: e-Learning Course  
Activities**

**Dr. Pellegrini,**

**I apologize for my late submission, but I have been focusing my time and efforts on my heavy teaching course loads. I currently teach math courses at three schools that have taken away time for my doctoral studies. However, I will catch up with the course pace in the upcoming days.**

**Faculty Use Only**

<Faculty comments here>

<Faculty Name>

<Grade Earned>

<Writing Score>

<Date Graded>

e-Learning Course Activities

Steven Diaz

Northcentral University

## Activity 1: Icebreaker Discussion

### Goal

- To build a community of learners in which learning occurs in a positive, productive, and collaborative environment that leads to students' success.

### Objectives

- Students will introduce themselves by posting a short biography in the designated discussion thread of the course shell's discussion board in Blackboard.
- Students will take an online self-inventory test about their medieval personality and include the results in their short biography, as an engaging and fun manner to become acquainted with their classmates.
- Students will reply to at least two classmates' introductions based on their common interests, personalities, or any other information that caught their attention about their classmates.

### Instructions

- Watch video tutorial on how to post responses and reply to classmates in the discussions at the *Video Lectures* page (see menu on the left side of the screen in Blackboard).
- Read the guidelines and expectations on how to participate in the discussions at the *Course Information* page (see menu on the left side of the screen in Blackboard).
- Participate in the *Icebreaker Discussion* thread by going to the *Discussion Board* page (see menu on the left side of the screen in Blackboard), which you will find the following instructions (read it carefully!):

- Reflect on the following quote: *Learning is a personal experience that is enhanced when collaborating with others.*
- Please introduce yourself in the *Icebreaker* discussion thread. In approximately 150-250 words, tell us: (a) Where you live; (b) What your major is; (c) What other classes you've taken or currently taking; (e) What do you expect in this course; and (d) Take the *Kingdomality Inventory Test* (click this link: <http://www.cmi-lmi.com/kingdomality.html>) to find your medieval personality. Post your medieval personality and explain why it either match or not your actual personality. Have fun doing this introductory activity!
- Post your introduction no later than midnight EST of Week 1 – Day 3. On a different day of the course week, respond to at least two other classmate's introduction. This discussion will end at midnight on Week 1 – Day 7. Your discussion posts must be done on at least two separate days.

### Assessment

Students earn completion points if they meet the following criteria of the rubric below.

Criteria	Completion Points	Earned Points
Student answered all questions from (a) to (e).	4	
Student took <i>Kingdomality Inventory Test</i> and included in his/her introduction post.	3	
Student replied to at least two classmates on a different day than his/her introduction post.	3	
<b>Total Points</b>	<b>10</b>	

### Activity Resources

- Video tutorial on how to post and reply in the discussion board of Blackboard:  
<http://screenr.com/cx1>.
- Guidelines and expectations on how to participate in the discussions:
  - Netiquette – Online Communication: <http://docs.google.com/Doc?docid=0AfH-LZQ0jx35ZGYyY2Z4enBfMjA0YzNzYnBxZDU&hl=en>.
  - Substantive Postings: <http://docs.google.com/Doc?docid=0AfH-LZQ0jx35ZGYyY2Z4enBfMjAzZjV4Z3RjZzc&hl=en>.

## Activity 2: Why Students Fail Remedial Math Discussion

### Goal

- To promote awareness of potential hindering behaviors that could lead students to fail remedial math courses and discuss what strategies students should implement to succeed instead.

### Objectives

- Students will read a student's blog article about the reasons students fail remedial math courses.
- Students will post a reflection of at least 100 words about their reactions to the blog article and what strategies they should implement to succeed in a remedial math course based on their experiences taking math courses.
- Students will reply to at least two classmates' posts that caught their attention about how to succeed in remedial math courses.

### Instructions

- Watch video tutorial on how to post responses and reply to classmates in the discussions at the *Video Lectures* page (see menu on the left side of the screen in Blackboard).
- Read the guidelines and expectations on how to participate in the discussions at the *Course Information* page (see menu on the left side of the screen in Blackboard).
- Participate in the *Why Students Fail Remedial Math Discussion* thread by going to the *Discussion Board* page (see menu on the left side of the screen in Blackboard), which you will find the following instructions (read it carefully!):

- Reflect on the following: According to several researchers, approximately 2 out of 10 developmental college students will earn a college degree in comparison approximately to 5 out of 10 regular students.
- I recently read a blog of a student who tried answering the question *Why Students Fail at Remedial Math?* based on her experiences taking remedial math courses. Here is the link to the student's blog, so you read the article:  
[http://open.salon.com/blog/bikelizard/2010/01/14/why\\_students\\_fail\\_at\\_remedial\\_math](http://open.salon.com/blog/bikelizard/2010/01/14/why_students_fail_at_remedial_math).
- Based on your experiences taking math courses, why do you think too many students fail remedial math? What would be the major obstacle that could interfere with your chances to succeed in this remedial math course? What you should do to avoid failing a remedial math course? Post a response of at least 100 words.
- Post your initial response to the discussion questions no later than midnight EST of Day 3 of the course week. On a different day of the course week, respond to at least two other classmate's introduction. This discussion will end at midnight on Day 7 of the course week. Your discussion posts must be done on at least two separate days.

## Assessment

Students earn completion points if they meet the following criteria of the rubric below.

<b>Criteria</b>	<b>Completion Points</b>	<b>Earned Points</b>
Student posted response to initial discussion questions by Day 3 of the course week.	<b>6</b>	
Student replied to at least two classmates on a separate day of the course week than his/her initial response.	<b>4</b>	
<b>Total Points</b>	<b>10</b>	

## Activity Resources

- Video tutorial on how to post and reply in the discussion board of Blackboard:  
<http://screenr.com/cx1>.
- Guidelines and expectations on how to participate in the discussions:
  - Netiquette – Online Communication: <http://docs.google.com/Doc?docid=0AfH-LZQ0jx35ZGYyY2Z4enBfMjA0YzNzYnBxZDU&hl=en>.
  - Substantive Postings: <http://docs.google.com/Doc?docid=0AfH-LZQ0jx35ZGYyY2Z4enBfMjAzZjV4Z3RjZzc&hl=en>.

### Activity 3: Order of Operations

#### Goal

- To grasp the basic idea of why following order of operations is essential not only in mathematics, but also in many activities of our lives.
- To become proficient using the math editor *Microsoft Equation Editor* in *Microsoft Word*.

#### Objectives

- Students will listen and observe the instructor's short presentation *The What's, Why's and When's of Order of Operations*.
- Students will complete the worksheet *The What's, Why's and When's of Order of Operations* that is based on the instructor's presentation.
- Students will use the math editor *Microsoft Word* and *Microsoft Equation Editor* to complete the worksheet.
- Students will publish their work in the Internet at *Scribd* website and submit the web address link of their work to the instructor via Blackboard's messaging system.

#### Instructions

- Watch and listen the short presentation given by your instructor in class (face-2-face class meeting) about Order of Operations. This presentation will be available in the *Video Lectures* page (see menu on the left side of the screen in Blackboard) after the on-site class meeting.
- Watch and listen the tutorials on how to use *Microsoft Equation Editor* to insert mathematical symbols in *Microsoft Word*. The tutorials will be available in the *Video*

*Lectures* page (see menu on the left side of the screen in Blackboard) after the on-site class meeting.

- Download the Microsoft Word document *The What's, Why's, and When's of Order of Operations* that is attached to this page. Complete this document by answering each question with at least 75 words using Microsoft Word and Microsoft Equation Editor. Save the document in your computer.
- Upload your document to *Scribd* website (<http://www.scribd.com/>). If you do not have an account at this site, you must create one by clicking the *Sign Up* button. After uploading your document to Scribd website, identify your document with the following search settings:
  - Category: Schoolwork;
  - Sub-category: Study Guides, Notes, & Quizzes;
  - Tags: math, order\_operations, basic\_skills.
- Watch and listen the tutorials on how to send a message to the instructor using the *Communication* tool in Blackboard. Send a message to the instructor containing the link of your uploaded document at *Scribd* website.

### Assessment

Students earn completion points if they meet the following criteria of the rubric below.

Criteria	Completion Points	Earned Points
Student listed the steps to change a flat tire.	2	
Student explained in his/her own words what order of operations is.	1	
Student explained in his/her own words why we need order of operations.	1	
Student explained in his/her own words when we use order of operations.	1	
Student created a numerical expression that simplifies to 3 when the rules of order of operations are applied to this expression.	5	
<b>Total Points</b>	<b>10</b>	

### Activity Resources

- Video presentation *The What's, Why's, and When's of Order of Operations*:  
<http://screenr.com/kv1>.
- Video tutorial about *Microsoft Equation Editor*: <http://screenr.com/3v1>.
- *The What's, Why's, and When's of Order of Operations* worksheet:  
<http://www.scribd.com/doc/28016067>.
- Video tutorial about using *Communication* tool: <http://screenr.com/hfh>.

### Course Description

I have been teaching remedial math courses at St. Thomas University (STU) for approximately four years. After my first year teaching remedial math courses, I immediately realized my instructional practices must change if I want my students to have a genuine chance to succeed in their college studies. The serious concern about the significant proportion of students lacking college readiness is constantly reported in all different media outlets. In fact, I have been teaching an overload of remedial math courses every semester (e.g. 5 or 6 courses) since I started at STU. The success rates of remedial students earning a college degree are appalling. According to several researchers, approximately 20% of developmental college students will earn a college degree in comparison to approximately 50% of regular students (as cited in Taylor, 2008). At one point, my remedial math courses were identified as one of the areas of concern for the retention issues the institution was experiencing. Therefore, changes to the instructional model of my remedial math courses were necessary and inevitable.

During LTM5010, I will focus my efforts designing a blended *Introductory Algebra* course, which is one of the remedial courses I teach. STU Undergraduate Catalog (2007) has the following course description for *Introductory Algebra*: “Concepts of variables, expressions, linear and quadratic equations and inequalities, algebraic manipulations. Use of graphs to represent and analyze relationships. The credits for this course cannot be used to satisfy degree requirements” (p. 239). This remedial math course is composed mostly of students who recently graduated from high school and scored below the minimum required in the SAT and Placement Tests to be placed in college level math courses. During informal surveys that I do during the first week of the course, most students indicate they commute to school and work part-time as a

way to sustain themselves, which I inferred was one of the reasons for the alarming number of absenteeism and tardiness that I encounter every semester in my course.

*Introductory Algebra* students typically demonstrate lack of interest in learning mathematics or fears of failure due probably to their previous hindering learning experiences in high school math courses. Such behaviors cause students to avoid taking math courses as much as possible that delay their progress of earning a college degree; hence, a stumbling block to achieve their academic goals (Thiel, Peterman, & Brown, 2008). Students tuning out during class lectures and not actively engaging in the learning process were a common occurrence during my lecture-based teaching practices. I realized my instructional practices consisted on a *one-size fits all* approach, meaning that students' previous experiences with the course content and their needs were not considered when designing the instructional activities. I assumed that all *Introductory Algebra* students started at the same skill level: *not knowing anything* about Algebra. My instructional practices were augmenting students' math anxieties and reinforcing bad study habits instead of reducing or eliminating it. I was perpetuating the same passive learning experiences students probably had in high school math courses.

Students in developmental courses (i.e. remedial courses) would benefit from instruction that interrupts their cycle of poor performance in mathematics by focusing on a plan that increases their confidence doing mathematics and reduce their math anxiety levels (as cited in Taylor, 2008). Carol Twigg from the National Center for Academic Transformation (NCAT) has been advocating for the redesign of introductory college courses using technology to improve students' learning at a reduced cost. In her article *Math Lectures: An Oxymoron?*, Twigg (2005) pointed out that students' success rates in basic skills math courses will not improve if instructors continue teaching with the same instructional method (i.e. class lectures) that did not help

students succeed the first time they were exposed to the same course content during high school. In the article *The Next Generation of Educational Engagement*, Oblinger (2004) found that students do not ask as many questions in class lectures as they do in tutoring sessions or in computer-based instruction courses. NCAT (2005) stated in their article *Five Principles of Successful Course Redesign*, “In moving from an entirely lecture-based to a student-engagement approach, learning is less dependent on words uttered by instructors and more dependent on reading, exploring, and problem-solving undertaken actively by students” (para. 8). In a study about using the online interactive learning system ALEKS in math courses, Stillson and Alsup (2003) found that 61% of their students affirmed learning more mathematics using ALEKS than they had in previous traditional math classes.

Using one of the course redesign models suggested by NCAT (i.e. Emporium model), the new instructional model for *Introductory Algebra* will consist on helping students becoming more active learners when learning course content. To accomplish this goal, I will redesign the course from lecture-based to a blended approach: e-learning component and once a week onsite class meetings. Waterhouse (2005) recognized that e-learning facilitates student-centered learning, anytime-anyplace learning, increased interaction with course content, increased communication and collaboration among students and instructor, and access to worldwide resources. Onsite instructional time will be spent on engaging and doing mathematics and less on long lectures. Making connections of mathematics to real-life scenarios and solving real-life problems will be the focus of the activities that I will design for *Introductory Algebra*, so students have meaningful and memorable learning experiences (Allen, 2003).

Active learning strategies will be used to foster a collaborative, productive, and positive learning environment, in which students not only learn from the instructor but also from their

peers during onsite class meetings and online activities and discussions. I will focus also on designing activities that foster students to reflect about their learning, which Conrad and Donaldson (2004) considered to be one of the major components of an engaging and active learning environment. Through reflection activities, I want my students to gain awareness, make connections, and value mathematics as essential knowledge to understand the world around them. Furthermore, a computer-based instruction will be implemented in my *Introductory Algebra* courses to help students learn course content anytime-anyplace. Using the online learning and assessment system ALEKS, students will experience an individualized instruction that considers their previous experiences and knowledge of the course content. Students will learn what they need to learn, not what they already know. ALEKS provide immediate feedback to students while doing math problems, which is essential to keep them motivated to complete the course.

*Introductory Algebra* will be a self-paced course. A suggested timeline will be provided guiding students to complete course objectives. The classroom will be transformed from a lecture hall to a learning center with computers, in which students have access to a wealth of resources, such as videos, handouts, animations, web links, Power Point presentations, etc. In addition to these resources, students will receive individualized or small group instruction or assistance from the instructor, tutors, and peers that are available online and onsite. In summary, students have choices to use those resources that better meet their needs as learners; therefore, improving their chances to succeed in the *Introductory Algebra* course.

To interrupt my students' cycle of poor performance in mathematics, they must become active learners. When my remedial students develop active learning habits, then they will be prepared to handle the rigor of college level math courses. For such reason, the focus of the new

instructional model for my *Introductory Algebra* course is to help my students become active learners when learning mathematics. A blended delivery mode seems to be the best instructional approach to accomplish my goal.

## References

- Allen, M.W. (2003). *Michael Allen's guide to e-learning: Building interactive, fun, and effective learning programs for any company*. Hoboken, NJ: Wiley & Sons, Inc.
- Conrad, R., & Donaldson, J. (2004). *Engaging the online learner: Activities and resources for creative instruction*. San Francisco, CA: Jossey-Bass.
- National Center for Academic Transformation. (2005). *Five Principles of Successful Course Redesign*. Retrieved March 9, 2010, from [http://www.thencat.org/PlanRes/R2R\\_PrinCR.htm](http://www.thencat.org/PlanRes/R2R_PrinCR.htm).
- Oblinger, D.G. (2004). *The Next Generation of Educational Engagement*. Retrieved March 1, 2010, from <http://www-jime.open.ac.uk/2004/8/oblinger-2004-8.pdf>.
- St. Thomas University. (2007). *Undergraduate Student Catalog*. Retrieved March 1, 2010, from [http://www.stu.edu/IMG/pdf/UndergraduateCatalog20072008.Final.Master.web\\_catalog.pdf](http://www.stu.edu/IMG/pdf/UndergraduateCatalog20072008.Final.Master.web_catalog.pdf).
- Stillson, H., & Alsup, J. (2003). Smart ALEKS...or not? Teaching basic algebra using online interactive learning system. *Mathematics and Computer Education*, 37(3), 329-340. Retrieved March 1, 2010 from Research Library database.
- Taylor, J.M. (2008). The effects of a computerized-algebra program on mathematics achievement of college and university freshmen enrolled in a developmental mathematics course (Report). *Journal of College Reading and Learning*, 39(1), 35-54. Retrieved March 1, 2010, from Educator's Reference Complete via Gale.
- Thiel, T., Peterman, S., & Brown, M. (2008). Addressing the Crisis in college mathematics: Designing courses for student success. *Change*, 40(4), 44-50. Retrieved March 1, 2010, from Educator's Reference Complete via Gale.
- Twigg, C.A. (2005). *Math Lectures: An Oxymoron?* Retrieved March 1, 2010, from <http://www.thencat.org/PlanRes/Math%20Lectures%20Editorial.htm>.

Waterhouse, S. (2005). *The power of eLearning: The essential guide for teaching in a digital age*. Boston, MA: Pearson Education, Inc.