



# Bethesda University

730 North Euclid Street, Anaheim, California 92801 Tel: (714)517-1945, Fax: (714)683-1440

## EC 290 Math and Science in Early Childhood Education

| Professor Carol Parsons     |   |                |                             |
|-----------------------------|---|----------------|-----------------------------|
| Class Hour:                 | ONLINE                                    | Classroom:     | ONLINE                      |
| Office:                     | <a href="#">Click here to enter text.</a> | Phone:         | 714-948-3954                |
| Office Hours/ Consultation: | <a href="#">Click here to enter text.</a> | E-mail:        | Steve-parsons@sbcglobal.net |
| TA: TBA (To Be Arranged)    |   | Credit Unit: 3 |                             |

### A. Bethesda University Mission Statement

Bethesda University is a Christ-centered community of higher education preparing Korean/English speaking men and women with professional competence, academic excellence, and spiritual integrity to be servant leaders in the Church, community, and global society.

### B. Relationship of Course to Bethesda University's Mission

This course prepares adults and future educators to become spiritual and intellectual professional in the field of Early Childhood.

### C. Course Description

This course will teach curriculum development in the field of Math and Science for Early Childhood Educators. This course will teach STEM: Science, Technology, Engineering and Math curriculum and activities, preparing future teachers with the knowledge of STEM and Mathematic Standards.

### D. Course Objectives & Student Outcomes

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|                | Expected Student Outcomes                                   | Assessment Used to Measure Outcomes   |
|----------------|---|---|
| Spiritually    | Students will write meaning of spiritual quote of the week. | Weekly writing describing the meaning of the spiritual quote in their own words |
| Intellectually | Students will create intellectual learning                  | Work with children in classroom using   |



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|                   |  |  |
|-------------------|--|--|
|                   | activities for children using STEM and the purpose of STEM.  | Science, Technology Engineering and Math.  |
| Socio-Emotionally | Students will create curriculum developing social-emotional growth.                                | Creating STEM Activities developing the whole child.                                 |
| Vocationally      | Students will learn to create activities, and lesson plans for developing Science and Math skills. | Class Project- Creating a lesson and Lesson plans using Science and Math Activities. |

## E. Teaching/Learning Methods

Learning methods include lecture and hands-on activities. The students will experiment and engage in teaching activities with children in the early childhood.

## F. Required Textbook(s)

| No. | Title                            | Author            | Publisher     | Library code | Year |
|-----|----------------------------------|-------------------|---------------|--------------|------|
| 1   | Teaching STEM in the Early Years | Moomaw, Sally EdD | Redleaf Press |              | 2013 |
|     |                                  |                   |               |              |      |
|     |                                  |                   |               |              |      |
|     |                                  |                   |               |              |      |

## G. Recommended Reading and Other Course Resources (All reserved for reading)

Please, provide at least 5-10 recommended book on the subject and prioritize by importance and popularity. The library will try to buy those books if not already there.

| No. | Title  | Author                             | Publisher                              | Library code | Year |
|-----|--|------------------------------------|--|--------------|------|
| 1   | A head Start on Science- Encouraging a sense of Wonder | Ritz, William C.                   | National Science Teachers Associations |              | 2007 |
| 2   | California Preschool Foundations Volume 1 and 3        | California Department of Education | CDE Press                              |              | 2010 |
| 3   | ECERS- Early Childhood Environmental Rating Scale      | Harms, Clifford, and Cryer         | Teachers College Press                 |              | 2005 |
| 4   | Worms, Shadows and Whirlpools- Science in              | Worth, Karen, and Grollman         | Educational Development                |              | 2003 |



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|   |  |                                    |              |  |      |
|---|--|------------------------------------|--------------|--|------|
|   | the Early Childhood classroom                            |                                    | Center, Inc. |  |      |
| 5 | California Preschool Learning Frameworks Volumes 1 and 3 | California Department of Education | CDE Press    |  | 2010 |
|   |  |                                    |              |  |      |
|   |  |                                    |              |  |      |
|   |  |                                    |              |  |      |
|   |  |                                    |              |  |      |

## H. Course Calendar/Schedule, include the following

| N   | Date     | Theme  | Reading   | Assignments            |
|---|----------|--|-----------|------------------------|
| 1   | 8/24/15  | Inroductions and Syllabus                                  | Syllabus  |                        |
| Last Day to Request Add/Drop is Friday of First Week                        |          |  |           |                        |
| 2   | 8/31/15  | STEM Education   | Chapter 1 |                        |
| 3   | 9/7/15   | STEM Learning Centers                                      | Chapter 2 |                        |
| 4   | 9/14/15  | Lecture and Activities STEM throughout the Classroom       | Chapter 3 |                        |
| 5   | 9/21/15  | STEM Outdoors  | Chapter 4 |                        |
| 6   | 9/28/15  | STEM in Project-Centered Curriculum                        | Chapter 5 |                        |
| 7   | 10/5/15  | Quick STEM Activities                                      | Chapter 6 |                        |
| 8   | 10/12/15 | STEM Based Field trips                                     | Chapter 7 |                        |
| Last Day to Request Grade Withdrawal "W" is Friday of 8 <sup>th</sup> Week  |          |  |           |                        |
| 9   | 10/19/15 | Mathematics Standards- Number and Operations               |           |                        |
| 10  | 10/26/15 | Mathematics Standards; Patterns, Functions and Algebra     |           |                        |
| 11  | 11/2/15  | Lecture- Mathematics Standards; Geometry and Spatial Sense |           |                        |
| 12  | 11/9/15  | Mathematics Standards- Measurement                         |           |                        |
| 13  | 11/16/15 | Mathematics Standards- Data Analysis and Reasoning         |           |                        |
| 14  | 11/23/15 | Thanksgiving Break   |           |                        |
| 15  | 11/30/15 |  |           | Due- Video tape Lesson |
| Last Day to Request Grade Incomplete "I" is Friday of 15 <sup>th</sup> Week |          |  |           |                        |
| 16  | 12/7/15  | Final  |           |                        |

## I. Assignments

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## J. Evaluation/Assessment Rationale for Grade Determination

### 1. Grade Assessment

Attendance and Lectures            20 pts.  
Participation and Lesson Plans    40 pts.  
Video lesson with children or child 40 pts.

Total----- 100 pts.

### 2. Grade definition

A     Excellent  
B     Good  
C     Satisfactory  
D     Poor  
F     Failure

### 3. Grade scale

| Letter Grade | Numeric Grade | Grade Points |
|--------------|---------------|--------------|
| A            | 95-100        | 4.0          |
| A-           | 90-94         | 3.7          |
| B+           | 87-89         | 3.3          |
| B            | 84-86         | 3.0          |
| B-           | 80-83         | 2.7          |
| C+           | 77-79         | 2.3          |
| C            | 74-76         | 2.0          |
| C-           | 70-73         | 1.7          |
| D+           | 67-69         | 1.3          |
| D            | 64-66         | 1.0          |
| D-           | 60-63         | 0.7          |
| F            | 59 or below   | 0            |

## K. Course Policies

### 1. Attendance, Preparation, and Participation:

Students are required to view all lectures provided on the Bethesda University Moodle.

### 2. Deadlines:

All course work is due on the assigned dates. Students who fail to submit assignments on time will be subject to the course late grading policy. In all cases unless stated by instructor, all work must be completed and turned in by December 7, 2015.



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3. **Advance Assistance:**

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4. **Assignment Options:**

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5. **Make up work:**

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6. **Extra-credit work:**

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7. **Emergency procedures:**

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8. **Other policies on Withdrawal and Grade Permanence, Academic Integrity, and Appeals and Grievance procedures refer to the Student Handbooks and Catalog.**

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**L. Support Services**

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**M. Bibliography**

[Click here to enter text.](#)