TeachStar Online Academy

Integers, Brain Research, & Differentiated Instruction

http://teachstaracademy.lacoe.edu

Participants Manual

Center for Distance and Online Learning
Los Angeles County Office of Education
Module 1 Orientation

- Go to the TeachStar Academy home page at: http://teachstaracademy.lacoe.edu
- Go to Computer Checkup at the top of the page and follow the directions to make sure your equipment meets the hardware and software requirements.
- Install Quicktime6 and Flash6, if needed. They are in a folder on the CDROM.
- Log-in using last name_first name (all lower case letters), password: webct
- MyWebCT page will appear containing the Integers course and the Community Center.
- To enter your course, click on 531 Integers 100.
- You will see the Orientation module. Click on it to enter the module.
- The module components are listed in the Table of Contents.
- Always begin with the Weekly Letter as it contains important information from your instructor about the course content and procedures.
- Work through the components listed in the Table of Contents, clicking on each one to read the lessons and do the activities.
- Post appropriate responses to the activity topics in the discussion board.
- Interact with your classmates in the discussion board by posting replies to their responses.
- When you get to component 6, CD Connection, insert the TeachStar CD-ROM in the appropriate drive and follow the directions. Seek help at HELPu@lacoe.edu, if you have technical difficulties.
- Continue with component 7-9 in the Table of Contents, reading and doing the Lessons & Activities
- Take the Check Your Understanding quiz. You may take it as many times as you wish and the highest score is always recorded.
- If you have technology problem, email HELPu@lacoe.edu for assistance or if you are at the face-to-face training, please ask for help.
- If you have questions about the course, assignments, or timeline, post your question in the Class Musings discussion topic.
- Use your Participant Handbook for directions for using the discussion board, etc.

Online Course - Procedures

Tasks to do each week (Each Saturday morning at 6AM, another module is released)
☐ Log-on early, either Saturday or Sunday to read the lessons, watch the videos, and do the activities.
☐ Post your responses to the activities in the discussion board no later than Monday.
☐ Return to the discussion board throughout the week to interact and reply to your classmates' posted responses. Be sure to answer any questions others ask you!
☐ Write your reflections in your online journal.
☐ At the end of the week, do the review and Check Your Understanding quiz.
☐ If you have technology problem, email HELPu@lacoe.edu for assistance.
☐ If you have questions about the course, assignments, or timeline, post your question in the Class Musings discussion topic.
TeachStar Online Academy

Integers, Brain Research, & Differentiated Instruction

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stellarcommunitycenter@lacoe.edu

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TeachStar Online Academy, Center for Distance & Online Learning
Los Angeles County Office of Education
TeachStar Orientation:
Integers, Brain Research, & Differentiated Instruction

Description
Students are introduced to a variety of topics concerning teaching integers. State curriculum standards are supported and correlated to digital video and selected online resources. California High School Exam (CAHSEE) concepts are also addressed. Participants develop mathematical understanding of the key concepts integrated with standards-based lessons for practical classroom application and modeling of exemplary instruction. They have the opportunity to see first hand what the strategies look like in a classroom through watching short video clips of actual classroom footage of masters teachers working with their students. Teachers use some of these effective strategies in their classroom and discuss their findings with other teachers in the online discussion boards. Each week the teachers will share their experiences and reflections in an online professional journal with their moderator.

Computer Check - START HERE!
There are minimum technical requirements that must be in place in order to participate successfully in the Online Moderator Training course. Access to an IBM compatible PC or Macintosh computer system with a 56k modem and phone line or high speed Internet access is required. All participants MUST have an email account & check it regularly!

<table>
<thead>
<tr>
<th>PC Hardware &amp; Software Requirements</th>
<th>Macintosh Hardware &amp; Software Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Minimum Hardware/Software Requirements:</strong></td>
<td><strong>Minimum Hardware/Software Requirements:</strong></td>
</tr>
<tr>
<td>§ Windows 98/NT/Me/2000/XP</td>
<td>§ A PowerPC processor-based Macintosh computer</td>
</tr>
<tr>
<td>§ A Pentium processor-based PC or compatible computer</td>
<td>§ Mac OS 8.6 - 9.22</td>
</tr>
<tr>
<td>§ At least 32 MB of RAM</td>
<td>§ At least 32 MB of RAM</td>
</tr>
<tr>
<td>§ A Sound Blaster or compatible sound card and speakers recommended</td>
<td>§ A 56K modem (or faster) with internet access</td>
</tr>
<tr>
<td>§ Direct X version 3.0 or later recommended</td>
<td></td>
</tr>
<tr>
<td>§ A 56K modem (or faster) with internet access</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PC Internet browser Requirements:</th>
<th>Mac Internet Browser Requirements:</th>
</tr>
</thead>
<tbody>
<tr>
<td>§ Internet Explorer 5.0 - 6.0, Netscape Navigator 4.76 - 6.23, AOL 7</td>
<td>§ Mac OS 8.6 - 9.22: Internet Explorer 5.0 or later, Netscape 4.76-6.2.3,AOL 7</td>
</tr>
<tr>
<td>§ Note exceptions below</td>
<td>§ QuickTime 6.0</td>
</tr>
<tr>
<td>§ Internet Explorer 5.5 SP1 and 6.1 are not supported</td>
<td>§ PC and Mac users can find the QuickTime 6.0 installer in the applications folder on this CD.</td>
</tr>
<tr>
<td>§ Netscape 4.78, 4.79, 6.0, 6.1 and 7.0 are not supported</td>
<td>§ Flash 6.0 - Mac users can find the Flash 6.0 installer in the applications folder</td>
</tr>
<tr>
<td>§ Netscape 6.2x may require an</td>
<td></td>
</tr>
</tbody>
</table>

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Los Angeles County Office of Education
updated Java plug-in

- Flash 6.0 - PC users go to [http://www.macromedia.com](http://www.macromedia.com) to download the Flash 6.0 installer.

If you haven’t already, visit the “Computer Check-up” page at the top of: [http://teachstaracademy.lacoe.edu](http://teachstaracademy.lacoe.edu) and follow the directions. **Download the plug-ins for Flash6, Quicktime6 and Acrobat Reader**, if needed.

If you have any questions about the system and hardware requirements for online courses, please email HELPu@lacoe.edu.

**Module 1: A Researched Based Model for Teaching Integers**

**Goals**

Participating Teachers Will...
- Recognize implications of brain research for teaching and learning mathematics
- Apply information from brain research to identify and develop strategies
- Recognize that differentiated instruction is based on brain research
- Apply differentiated instruction in teaching integers
- Understand the importance of teaching integers to middle school students
- Acquire strategies for introducing negative numbers
- Employ strategies for conceptualizing the notion of opposites
- Relate positive/negative numbers to the number line
- Enhance student learning through an enriched environments
- Provide preparation for a topic on the California High School Exit Exam (CAHSEE)
- Use the discussion board to post their ideas and thoughts each week, and to respond to the other participants to foster a strong learning community.

**Logging-in**

Go to the TeachStar Academy home page at [http://teachstaracademy.lacoe.edu](http://teachstaracademy.lacoe.edu)
Click on "Login", and the log-in screen will appear.
Your WebCT ID is your **last name first name** and your password is **webct** (lower case letters only!)
Changing Passwords
In order to maintain individual account security, it is a good idea to change your passwords once you have mastered the skills of logging-on and accessing the course material. Be sure to keep a record of your new password!

- From myWebCT, click **Change Password**. The Change Password screen appears.
- Complete the text boxes, and then click **Update password**. The Change Password confirmation screen appears, and your password is changed.
- Click **Continue**. The Logon to WebCT screen appears.
- In the WebCT ID text box, enter your WebCT ID, and the Password text box, enter your new password.
- Click **Log On**. Your myWebCT appears.

Accessing “myWebCT” Personal Home Page
Once you log-in, you enter your "my WebCT" home page.

Your Online Courses and the Community Center are accessed from this page.

- Click on the link to your Integers online course in the “Course Menu” on the left. The Integers home page will appear, featuring a picture of your Online Moderator and contact information.
- There are eight modules in "Integers, Brain Research, and Differentiated Instruction."
Time Releasing Modules
The course modules are selectively released. Each week, on Saturday morning at 6AM another module is released and becomes visible. The discussion topics and the Check Your Understanding quizzes are also time released as the course progresses.

Working Through Module 1
- During the first week, only Module 1 is visible on the Integers home page, although the syllabus, quizzes, library, instructional materials, glossary, Help Desk and CDROM Connector are always available from the Course Menu.

```
Course Menu
  Homepage
  Discussion Board
  Syllabus
  Quizzes
  Library
  Instructional Materials
  Glossary
  Help Desk
  TeachStar Academy
  CDROM Connector
```

- Click on the “Module 1” to enter it.

```
Unit 1

A Research-based Model for Teaching Integers
```

- You will see the **Table of Contents**, which list the components for the module.
  - Always begin by reading the **Weekly letter** from your online moderator.
  - Next, read through the lessons and follow the directions for the activities, posting your responses in the discussion board.
  - When you come to the **video clips**, insert your CD and follow the directions at the top of the page.
  - Do the module **review**
  - Take the **Check Your Understanding** quiz.
Table of Contents

1. Weekly Letter - Start Here!
2. Brain Research
3. Differentiated Instruction
4. Why Learn About Integers
5. Students Learn Brain Research
7. Teacher Reflection (Unit 1)
8. Unit 1: Web Resources
9. Equation Editor Text

Introductory CLAD CD-ROM

The CD contains video clips that accompany the modules’ lessons and activities. These videos are key to illustrating key concepts and feature interviews with experts and actual classroom footage of master teachers using effective teaching strategies. In order to see the video clips as you progress through the material, follow these steps:

- Insert the CD into your computer’s CD-ROM drive.
- Select the lesson page appropriate for your computer platform—either PC OR Mac.
- Follow the directions at the top of the lesson page. NOTE: PC users must indicate the drive they are using.

Discussion Board

The online community exists only if you and the other members are active and posting in the discussion board. The topics in the discussion board are directly related to the activities in each module. There is a specific goal or task for each discussion topic.

- To go to the discussion board, look under the heading “Course Menu” in the navigation bar on the left, and click on the “Discussion Board” link.

Evaluation of Students’ Participation

In the STELLAR study groups, participation is required. Below are the criteria used for evaluating each person’s participation in the discussion board:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Participation</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Pass</td>
<td>Inconsistent participation in discussion topics</td>
</tr>
<tr>
<td>Minimum pass</td>
<td>For EACH discussion topic:</td>
</tr>
</tbody>
</table>

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Los Angeles County Office of Education
How to Use the WebCT Discussion Board

Reading a message

1. From Discussions, click the topic containing the messages you want to read. The Discussion messages screen appears.

Messages are presented by threads. Threaded messages are a series of replies to the same subject. The header row of each message thread displays the following information:

<table>
<thead>
<tr>
<th>Status</th>
<th>Subject</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/1</td>
<td>Re: What lesson has worked...</td>
</tr>
<tr>
<td>1/1</td>
<td>Re: What lesson has worked...</td>
</tr>
<tr>
<td>1/1</td>
<td>I'll give a cool lesson 1...</td>
</tr>
<tr>
<td>1/1</td>
<td>Re: What lesson has worked...</td>
</tr>
<tr>
<td>1/1</td>
<td>Re: My ELL's</td>
</tr>
</tbody>
</table>

**Status**: displays the number of unread messages in the thread over the total number of messages in the thread.
Subject: displays the subject of the first message in the thread and the magnifying glass icon. You can view the message thread by clicking the magnifying glass icon.

2. In the header row, expand the thread by clicking the arrow next to it. All unread messages in the thread appear. A paper clip icon appears if the message has attachments.

3. Click the message that you want to read. The message opens in a new browser window.

If the message includes a file attachment, you can view the attached file by clicking the paper clip icon. The Attachments screen appears.

- To display the file attachment, click the hyperlinked file name. The file opens in the view frame.
- To download the file attachment:
  - Select the file and then click Download. Your browser's file download dialogue box appears.
  - Select to save the file to disk, and then click OK.
  - Select the location where the file will be saved, and then click Save. The file is downloaded to your computer. Click Close. The Attachments screen closes and you are returned to the message.

4. Only unread messages are listed. Click Show All to see all messages.

5. Messages are presented in threads. To view the messages in chronological order, click Unthread.

6. When you have finished reading the message, you can:
   - Close the message - Click Close. The Discussion Messages screen appears.
   - Reply to the message.
   - Download the message.
Posting a Message

- From Discussions, click the topic to which you wish to post a message. The Discussion messages screen appears.
- Click Compose Discussion Message.
- The Compose Discussion Message screen appears in a new browser window.

- From the Topic drop-down list, verify that the correct discussion topic is selected.
- In the Subject text box, enter the subject for your message.
- In the Message text box, enter your message.
- Always preview your message before posting it. To do this click Preview. Check for spelling and other errors.
- If you want to attach a file:
  - In the Attachments text box, enter the path and filename of your attachment. If you do not know the path or filename, click Browse. Your computer's file browser appears.
  - Select the file you wish to attach, and click Open. The path and filename of your attachment is entered in the Attachments text box.
  - Click Attach File. The filename appears as a link, and attaches to your message.
  - Click Post. Your message is posted to the discussion topic.
Replying to a message

- From Discussions, click the topic containing the message to which you want to reply. The Discussion Messages screen appears.
- Click the message to which you want to reply. The message appears.

- Choose the format for your reply.
  - To reply to all members of the topic without including the original message, click Reply.
  - To include the original message in your reply, click Quote.
The Compose Message screen appears. The original message appears at the bottom of the screen.

- In the Subject text box, enter the subject of your message.
- In the Message text box, enter your message.
- If you want to attach a file
  - In the Attachments text box, enter the path and filename of your attachment. If you do not know the path or filename, click Browse. Your computer's file browser appears.
  - Select the file you wish to attach, and click Open. The path and filename of your attachment is entered in the Attachments text box. Click Attach File. The filename appears as a hyperlink, and the file is attached to your message.
- Click Post. Your reply is posted to the discussion topic.

Class Musings Discussion Topics

Each module of your course includes a Class Musings discussion topic. This is where participants should share their questions, comments, and concerns about the course process or exchange ideas and information that is not directly connected to the topic.

- If you have questions, you can bet that other students do as well. In this way, everyone can benefit from the answers to common questions, and share ideas and concerns.
- For immediate technical help, contact the Help Desk at HELPu@lacoe.edu.

Online Journals

The online journal is a private, locked discussion thread that is provided for each participant in the course. Only you and your online moderator can access this private discussion thread--no one else can see it. Each week, you will post your reflections on the key ideas from the modules and your instructor will comment and provide helpful feedback to guide and facilitate your grasp of the basic concepts. In the first week, you will post your benchmarks against which your
growth in the course will be measured. The reflections shared in the online journal count as the final project for the study group. You will find your online journal at the bottom of the list of discussion topics in the discussion board.

Check Your Understanding Quizzes

The Check Your Understanding quizzes allows you to gauge your understanding of the key concepts and ideas from the modules. Self-assessment empowers you to assess your mastery over course materials without imposing formal grades. Each self-assessment can be taken as many times as you wish, and the highest score is the one that is recorded.

Quizzes are selectively released based on the date and time each module is released. The test scores are NOT considered in determining grades for students taking the course for college units or CEUs. Course participation and completion of the final project are the sole criteria used to determine whether you pass or fail the course.

Quiz Scores

Quiz Scores allows you to see your scores on the Check Your Understanding quizzes.

- To access this tool, go to the study group home page and click on “Quiz Scores”.

- All the scores for the tests you have taken are shown. Only the highest scores are shown. If no quizzes have been taken, there are no scores.
Module 2 - 5: The STELLAR Introductory CLAD Study Group

Course Procedure

The weekly process for the course is as follows:

- The modules are time release each Saturday morning at 6 AM. Either Saturday or Sunday, log-in, and read through the weeks assignments. From the Table of Contents, begin with the week’s letter from your online moderator.

Table of Contents

1. Week 2 Letter - Read This First!
2. Objectives 2
3. PC Users: Lesson & Activities 2
4. Mac Users: Lesson & Activities 2
5. Module 2 Review
6. Web Resources 2
7. Check Your Understanding 2

- Then proceed through the objectives, the lessons and activities. Choose either the PC OR the Mac lesson, whichever matches your computer platform.
- By Monday, you should post your responses to the activities in the discussion board. For the rest of the week, reply to your classmates’ postings and continue the dialogue to build a rich understanding of the topics.
- At the end of the week, reflect in your online journal, and do the module review and the Check Your Understanding quiz.

Final Project

Each week, you will spend some time reflecting in your Online Journal on your insights concerning what you have learned in each module. The first week of the course you will create your initial benchmarks against to measure your growth at the end of the course.

For your final project, you will construct a final reflection, based on the journal entries and your benchmarks. You will need to answer the following questions:

- What key ideas and insights have you gained these past five weeks from the readings, clips, and discussions?
- What personal challenges have you become aware of?
- What do you need to do to meet these challenges?
What information did you find most helpful from this study group, and plan on implementing or have already implemented in your classroom?

In order to receive your 15-hour credit for this Introductory CLAD study group, you must complete the final project.

**Stellar Community Center**

If you would like to share and exchange ideas with other participants in the STELLAR Online program, go to the STELLAR Community Center to the STELLAR Cafe.

- You can access the Community Center from your “my WebCT” page.

**Community Center**

The Community Center is a place for all members of the STELLAR community to gather together and engage in meaningful conversations. Drop in the STELLAR Cafe for ongoing conversations—share and exchange ideas, comments and concerns over an expresso or a mocha java. Visit our growing collection of valuable professional resources and information in the library. You can also look at the calendar, read the announcements and browse through the member profiles.

![Community Center](image)

Figure 11

- The STELLAR Cafe is a discussion group dedicated to sharing and exchanging ideas between all members of the STELLAR community.
- Click on the Water Cooler topic and compose your message. The Water Cooler is public forum for all STELLAR participants to discuss any subject related to education. Past conversations are saved in the STELLAR Cafe Archives.
- If you have any questions please contact the STELLAR Cafe Management at Ysais_Dotti@lacoe.edu.
- The STELLAR Community Center and STELLAR Cafe will be accessible to you for the entire year of your subscription. We hope to promote ongoing sharing and communications with your STELLAR colleagues, long after your online course has been completed.

**Emergency or Illness that Prevents Course Participation**

If for any reason, you find that you are not able to participate in your course for more than couple of days, contact your online moderator either by telephone to let us know of your circumstances.

TeachStar Online Academy, Center for Distance & Online Learning
Los Angeles County Office of Education
Your moderator’s contact information is on the home page of your Introductory CLAD course. Makeup work should be completed promptly according to the arrangements you make with your moderator.

**Help Desk**

Review the Help Desk page at http://stellar.lacoe.edu/help/help.html and become familiar with the services available to you for technical help (telephone, email, Web, FAQ, discussion board, manuals and guides). You can always reach the Help Desk via email at HELPu@lacoe.edu.