Supplemental Instruction Program
SI Leader Manual 2011-2012

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Section 1: Program Overview

Welcome to SI!
Welcome to the Utah State University Supplemental Instruction Program

We are excited to have you join the SI Program, which is directed by the Academic Resource Center (ARC), a department within the Division of Student Services. This manual is designed to help you by providing information and teaching strategies to help you help your students. Refer to this manual regularly as you plan each SI session. It will help you maximize the learning experience for your students while you experience the satisfaction of becoming an effective role model and peer teacher.

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What is Supplemental Instruction?

Supplemental Instruction (SI) is an international academic support model developed in 1973 by the University of Missouri-Kansas City. It was originally developed to assist pre-med and pre-dental students.

1. SI is designed to help students master material in difficult courses while increasing their learning strategies and study skills. Student performance is improved by combining “what to learn” with “how to learn.”

2. The Utah State University SI Program supports many General Education Breadth courses that are high-enrollment and/or “historically difficult”, which means the data has shown them to have a high rate of D or F grades and Withdrawals. SI targets “high risk” courses, not “at risk” students. It is not a remedial program.

3. SI provides out-of-class review sessions that are held two times per week at no cost to any student enrolled in the course.

4. SI Leaders use active teaching techniques to involve students in discussing, exploring, and understanding course material. They demonstrate, model, and involve students in critical thinking and practicing effective study strategies.

5. SI Leaders attend all class sessions, take notes, read assigned material, and model effective in-class behavior.

6. SI helps professors maintain high standards and expectations for a course, especially in situations where class size prevents him/her from giving personal attention to students.

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestone</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988</td>
<td>Piloted in BIOL 1010</td>
</tr>
<tr>
<td>1989</td>
<td>Placed in one section each of ECON 1500, GEOG 1100, HIST 1100</td>
</tr>
<tr>
<td>2001-2002</td>
<td>20 additional Gen Ed Breadth courses receive SI support</td>
</tr>
<tr>
<td>2002-2004</td>
<td>Tier II funding approved to provide SI in all sections of SI courses</td>
</tr>
<tr>
<td></td>
<td>Additional high-enrollment Gen Ed breadth courses receive SI Support</td>
</tr>
<tr>
<td>2004-2005</td>
<td>Funding becomes permanent for the SI Program</td>
</tr>
<tr>
<td>2005-Present</td>
<td>28-42 Gen Ed Breath course sections supported each semester</td>
</tr>
</tbody>
</table>
SI Program Administration

**SI Director and Program Assistant**
- Administers the SI Program
- Trains SI Leader
- Hiring
- Development
- Policies
- Evaluations

**SI Coordinators**
- Coach SI leaders
- Participate in training of new SI leaders
- Conduct observations of SI leaders

**SI Faculty**
- Teach General Education and lower division courses
- Work closely with the Program Coordinator
- Interacts with the SI Leader

**SI Leaders**
- Attend SI course
- Administer 2+ SI sessions per week
- Attend weekly training
- Collect attendance data for SI sessions
# SI Works! Academic Outcomes 2010-11

<table>
<thead>
<tr>
<th>Course</th>
<th>Average grade of SI participants who attended 5 or more sessions</th>
<th>Average grade of SI participants who attended 3 to 5 sessions</th>
<th>Average grade of SI participants who attended 1 to 2 sessions</th>
<th>Average grade of non-SI participants</th>
<th>Average class grade</th>
<th>Total number of students attending SI</th>
<th>Total students enrolled in course</th>
<th>Total percent of students attending SI</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 1010</td>
<td>3.14</td>
<td>2.69</td>
<td>2.49</td>
<td>2.22</td>
<td>2.49</td>
<td>454</td>
<td>847</td>
<td>49%</td>
</tr>
<tr>
<td>BIOL 1010</td>
<td>2.82</td>
<td>2.26</td>
<td>2.33</td>
<td>1.94</td>
<td>2.03</td>
<td>381</td>
<td>849</td>
<td>45%</td>
</tr>
<tr>
<td>BIOL 1020</td>
<td>3.44</td>
<td>2.63</td>
<td>2.91</td>
<td>2.58</td>
<td>2.73</td>
<td>255</td>
<td>518</td>
<td>40%</td>
</tr>
<tr>
<td>BIOL 1050</td>
<td>2.10</td>
<td>1.81</td>
<td>1.15</td>
<td>1.62</td>
<td>1.65</td>
<td>35</td>
<td>90</td>
<td>40%</td>
</tr>
<tr>
<td>BIOL 2320</td>
<td>2.61</td>
<td>1.93</td>
<td>1.78</td>
<td>1.64</td>
<td>1.74</td>
<td>132</td>
<td>206</td>
<td>43%</td>
</tr>
<tr>
<td>BIOL 3400</td>
<td>2.00</td>
<td>2.57</td>
<td>2.43</td>
<td>2.24</td>
<td>2.53</td>
<td>318</td>
<td>521</td>
<td>65%</td>
</tr>
<tr>
<td>CHEM 1010</td>
<td>2.26</td>
<td>2.66</td>
<td>2.41</td>
<td>2.00</td>
<td>2.25</td>
<td>163</td>
<td>354</td>
<td>45%</td>
</tr>
<tr>
<td>CHEM 1210</td>
<td>2.84</td>
<td>2.26</td>
<td>2.15</td>
<td>1.68</td>
<td>2.12</td>
<td>508</td>
<td>863</td>
<td>60%</td>
</tr>
<tr>
<td>CHEM 1220</td>
<td>2.89</td>
<td>2.67</td>
<td>2.11</td>
<td>2.63</td>
<td>2.62</td>
<td>395</td>
<td>497</td>
<td>50%</td>
</tr>
<tr>
<td>CHEM 2320</td>
<td>2.78</td>
<td>2.46</td>
<td>2.97</td>
<td>2.89</td>
<td>2.57</td>
<td>41</td>
<td>99</td>
<td>41%</td>
</tr>
<tr>
<td>CHEM 2310</td>
<td>2.68</td>
<td>2.39</td>
<td>2.58</td>
<td>2.62</td>
<td>2.48</td>
<td>307</td>
<td>253</td>
<td>83%</td>
</tr>
<tr>
<td>CHEM 2220</td>
<td>3.19</td>
<td>2.71</td>
<td>2.80</td>
<td>2.69</td>
<td>2.75</td>
<td>60</td>
<td>206</td>
<td>30%</td>
</tr>
<tr>
<td>ECON 1000</td>
<td>3.13</td>
<td>2.74</td>
<td>2.47</td>
<td>2.44</td>
<td>2.67</td>
<td>815</td>
<td>1400</td>
<td>58%</td>
</tr>
<tr>
<td>ECON 1000</td>
<td>3.48</td>
<td>2.49</td>
<td>2.51</td>
<td>2.69</td>
<td>2.35</td>
<td>80</td>
<td>284</td>
<td>31%</td>
</tr>
<tr>
<td>ICOM 1500</td>
<td>3.52</td>
<td>2.90</td>
<td>2.72</td>
<td>2.80</td>
<td>2.93</td>
<td>149</td>
<td>353</td>
<td>44%</td>
</tr>
<tr>
<td>PHYS 1040</td>
<td>3.78</td>
<td>3.43</td>
<td>3.21</td>
<td>3.61</td>
<td>3.01</td>
<td>104</td>
<td>276</td>
<td>57%</td>
</tr>
<tr>
<td>PHYS 1200</td>
<td>3.52</td>
<td>3.46</td>
<td>3.25</td>
<td>3.27</td>
<td>3.32</td>
<td>167</td>
<td>350</td>
<td>45%</td>
</tr>
<tr>
<td>POLS 1100</td>
<td>3.18</td>
<td>2.65</td>
<td>2.45</td>
<td>2.52</td>
<td>2.47</td>
<td>230</td>
<td>471</td>
<td>50%</td>
</tr>
<tr>
<td>PSY 1010</td>
<td>2.61</td>
<td>2.46</td>
<td>2.25</td>
<td>2.12</td>
<td>2.12</td>
<td>749</td>
<td>1447</td>
<td>52%</td>
</tr>
<tr>
<td>SOC 1010</td>
<td>2.88</td>
<td>2.97</td>
<td>2.90</td>
<td>2.11</td>
<td>2.42</td>
<td>500</td>
<td>1049</td>
<td>48%</td>
</tr>
<tr>
<td>USU 1550</td>
<td>3.34</td>
<td>2.69</td>
<td>2.46</td>
<td>2.61</td>
<td>2.85</td>
<td>551</td>
<td>1175</td>
<td>47%</td>
</tr>
<tr>
<td>USU 1550</td>
<td>3.38</td>
<td>2.98</td>
<td>2.59</td>
<td>1.78</td>
<td>1.97</td>
<td>160</td>
<td>266</td>
<td>60%</td>
</tr>
<tr>
<td>USU 1550</td>
<td>3.49</td>
<td>3.21</td>
<td>2.64</td>
<td>2.64</td>
<td>2.72</td>
<td>414</td>
<td>783</td>
<td>52%</td>
</tr>
</tbody>
</table>

**Legend:**
- **Total Courses:** 7,400
- **Total SI Sessions:** 1,050
- **Total Sessions Attended:** 3,948

## Comparison of Participating to Non-Participating Students

<table>
<thead>
<tr>
<th>Sessions Attend</th>
<th>Average Participant Grade</th>
<th>Average Non-Participant Grade</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or more</td>
<td>3.06</td>
<td>2.30</td>
<td>0.75</td>
</tr>
<tr>
<td>3 to 5</td>
<td>2.64</td>
<td>2.30</td>
<td>0.34</td>
</tr>
<tr>
<td>1 to 2</td>
<td>2.50</td>
<td>2.30</td>
<td>0.20</td>
</tr>
</tbody>
</table>

## Comparison of Attending 5 or More Sessions to Class Average

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Average Participant Grade</th>
<th>Average Class Grade</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 or more</td>
<td>3.06</td>
<td>2.45</td>
<td>0.62</td>
</tr>
</tbody>
</table>
SI Works! Student Satisfaction

“SI’s help me out a lot. There’s interaction, plus there’s not thousands of students…you can really feel like you can dig in deep in the information and ask questions that you normally wouldn’t in front of 400 students.”

89.5% Satisfied to Very Satisfied with SI.
~2008 Freshman / Sophomore Survey

“With the SI I feel the interaction level is so much higher than the classroom.”

39% used SI ≥5 times.
87% were satisfied with SI.
~2008 Graduating Student Survey

“Most SI instructors are students…speak in our terms…help us understand…convert the definitions.”

Additional Benefits and Outcomes of the SI Program

For students
• Students who may not seek assistance from their professor still have a source for assistance so they can perform well in the class. SI sessions provide more in-depth exploration of course material for which there may not be sufficient time in class.

• Students benefit from developing study partnerships that can be maintained beyond the completion of the class.

For Professors
• Professors whose courses include SI are particularly aware of students’ needs and work closely with the SI Leader to help students succeed in the course.

For Utah State University
• SI data provides evidence that the program is an important component in retaining first year students

• SI provides support to students in pre-major core classes, which promotes increased passing grades and reduced course withdrawals. Improved course grades promote entry and retention in college major programs.
Section 2: Position Responsibilities
Supplemental Instruction Leader
Position Agreement

1. I have been hired as an SI Leader for a respected academic support program at Utah State University. I report to the Director of the Academic Resource Center, who is responsible for hiring and program management.

2. I will keep my language and dress appropriate and non-offensive and represent the ARC in a professional manner on and off campus and when using any social media. I have read the position description on the reverse side of this agreement and agree to perform the position responsibilities.

3. I agree to the following:
   • I will attend all lectures for my class. If I have to miss a lecture due to an emergency, I will immediately notify my course professor by the means most likely to reach him/her.
   • I will attend on time all mandatory training, observation conferences with my Coordinator, and other required SI meetings.
   • I will be prepared for all of my SI sessions and be in the correct classroom on time and with all necessary materials.
   • I will ensure that I understand what my students need to learn and what they find most challenging so that I review appropriate material in my SI sessions.
   • I will show respect and courtesy to all of my students. I will support the course professor and will not criticize him/her. I will discuss any concerns with him/her directly and in private.
   • I will submit time cards and attendance rolls on time. Failure to submit these items by due dates will result in withholding of pay for that period. Failure to follow through with administrative tasks may result in withholding of a pay raise or a decision to not continue my employment in the following semester.
   • If I have to cancel an SI session due to an emergency, I will contact the ARC at 797-1128, email my students and professor, and post a notice at the classroom. I understand it is my responsibility to ensure that students are notified.

4. I understand that this position is for one semester and renewal is determined based on available course, my performance evaluations, and program budget.

5. **Excused absence policy**
   I understand it is important to avoid absences and lateness. An excused absence is when the Director or Program Assistant and professor and students receive advance notice (the day before) that I will be absent or late. If an emergency prevents advance notice, I will call as soon as I am able. I agree that:
   • I am permitted no more than three excused absences each semester. Excused absences in excess of three may result in termination.
   • Excused absences are required for the following situations:
     o Missing an SI training, SI session, lecture class, or scheduled observation/evaluation conference with my Coordinator.
     o Arriving to an SI training or SI session more than ten (10) minutes late.

6. **Unexcused absence policy**
   I understand that more than two unexcused absences may result in termination. The Director will talk with me after any unexcused absence to remind me of this agreement and my responsibilities.

**Employee Confidentiality Statement.** As an employee of the Academic Resource Center, I may have access to confidential information such as grades, test results, student progress in class, and similar data. I may also have verbal or written communication with ARC staff, instructors, or academic advisors that must be kept confidential. I will not use any student information I am authorized to have access to for any purpose other than SI, both during and subsequent to my employment. I will delete all student email lists or other electronic groups used for SI at the end of each semester. To accept employment in the Academic Resource Center is to accept the responsibility of preserving the confidentiality and appropriate use of any and all information. Failure to adhere to these guidelines will result in immediate termination of my employment.

I understand and agree to all requirements, policies, and expectations stated in this position agreement.

Print Name __________________________________________________
Signature  __________________________________________ Date ____________________________
Supplemental Instruction Leader
Job Description

Minimum Qualifications
1. Completed the course for which you are applying and one additional relevant course. Preference is given to students who completed the course at USU and have a declared major or minor in the subject or related discipline.
2. Received at least an A- in the course.
3. Minimum USU GPA of 3.3.
4. Attended at least two semesters of college.
5. Demonstrates excellent communication and interpersonal skills.

Specific Responsibilities

Time Commitment 8-10 hours per week
1. Attend all class sessions.
2. Spend at least one hour planning for each SI session held.
3. Conduct 2 one-hour SI sessions during the week (Monday-Friday) 4:30 p.m. – 8:30 p.m.
4. Attend weekly trainings each semester you are employed.

Responsibilities in Class
1. Take thorough notes of all lectures.
2. Advertise SI to your class regularly and motivate students to attend SI.
3. Communicate with the professor about SI sessions, as needed.
4. Administer mid-term and end-of-semester evaluations.

Responsibilities for Planning
1. Use planning forms to prepare organized, effective SI sessions.
2. Incorporate collaborative and active teaching methods and learning activities.
3. Create study materials to aid students in learning course material.
4. Use the SI manual and website resources to increase the effectiveness of your SI sessions.

Responsibilities During SI Sessions
1. Take roll during each SI session.
2. Create a comfortable, respectful learning environment during SI sessions.
3. Ensure students actively participate in the learning process.
4. Teach study skills such as textbook reading, note taking, test preparation, and test taking skills.
5. Use a variety of teaching methods; implement ideas learned during SI training.

Responsibilities as an Employee of the SI Program
1. Attend all training meetings on time and actively participate.
2. Meet with and communicate regularly with your SI coordinator, including participating in observation and evaluation feedback meetings.
3. Submit attendance rolls and time cards each pay period and month by established deadlines.
4. Administer mid-semester and end-of-semester student evaluations.
5. Adhere to all policies and procedures of the SI Program.
6. Evaluate your coordinator and the SI Program.
How is an SI Leader Different than a UTF?

There are various types of classroom or academic support provided by undergraduate students. Examples of such assistance include: SI Leader, Undergraduate Teaching Fellow (UTF), Rhetoric Associate (RA), Undergraduate Teaching Assistant (TA), and Peer Mentor.

Supplemental Instruction is designed to directly support students by regularly helping them learn course material, prepare for tests, and learn effective study strategies. SI Leaders do not provide classroom support to the professor such as grading and maintaining course Canvas sites. They also do not typically provide support for labs or writing papers.

<table>
<thead>
<tr>
<th>SI Leaders (SIL)</th>
<th>Undergraduate Teaching Fellows (UTF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attend class, take notes, and complete assigned readings</td>
<td>Optional or not expected</td>
</tr>
<tr>
<td>Conduct twice weekly review sessions and additional test reviews before major exams</td>
<td>Typically provide only classroom support; may hold test reviews; handled differently by each professor</td>
</tr>
<tr>
<td>Required weekly training to learn effective teaching methods and active learning strategies</td>
<td>One time orientation; no formal training in teaching or learning strategies; handled differently by each professor</td>
</tr>
<tr>
<td>Demonstrate effective study strategies</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Weekly coordinator group meetings to share ideas and discuss concerns</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Coached and evaluated 3-4 times each semester by SI Coordinator</td>
<td>No formal process; handled differently by each professor</td>
</tr>
<tr>
<td>Required to administer student assessments to evaluate program and SI Leader</td>
<td>Evaluated once by professor</td>
</tr>
<tr>
<td>Not allowed to be involved with grading or preparation of tests to avoid conflict of interests</td>
<td>May help professor with grading, preparation or review of tests, assignments, and papers</td>
</tr>
</tbody>
</table>
SI Leader Code of Ethics

The following Code of Ethics has been adopted to guide the actions of SI leaders hired by the Academic Resource Center:

1. Subject knowledge and proficiency have top priority in my job. I will maintain and improve my knowledge of all course material for my SI class.

2. I will manage personal concerns and outside distractions so as not to affect my teaching quality.

3. I will acknowledge lack of knowledge or skill and will seek assistance from my professor, SI Coordinator, SI Director, and/or SI Program Assistant.

4. I will accept students as they are, without statements of judgment. This includes managing my non-verbal communication to demonstrate respect and acceptance.

5. I will not impose my personal values, belief system, or lifestyle on students.

6. I will never do a student’s work, provide my class notes or other course materials not authorized for distribution in an SI session, assist with course exams, or privately tutor any students in my SI class.

7. I must not engage in any activity that would create a role conflict. Students must perceive me as not having undue influence on their grades. I understand I cannot grade exams or assignments; preview class tests; or have any knowledge of students’ grades except as they share with me.

8. I will maintain confidentiality and privacy of all students as described in the Confidentiality Statement below.

9. If student ask if they should stay in or drop a class, I will refer them to their academic advisors.

11. I will never act in the role of academic advisor. If student ask if they should stay in or drop a class, I will refer them to their academic advisors.

**REMEMBER**

**Employee Confidentiality Statement:** As an employee of the Academic Resource Center, I may have access to confidential information such as grades, test results, student progress in class, and similar data. I may also have verbal or written communication with ARC staff, instructors, or academic advisors that must be kept confidential. I will not use any student information I am authorized to have access to for any purpose other than SI, both during and subsequent to my employment. I will delete all student email lists or other electronic groups used for SI at the end of each semester. To accept employment in the Academic Resource Center is to accept the responsibility of preserving the confidentiality and appropriate use of any and all information. Failure to adhere to these guidelines will result in immediate termination of my employment.
Professionalism

Professionalism is appropriate workplace behavior that promotes positive interactions among students, professors, other SI Leaders, and the SI Program staff. Your behavior has a direct effect on the reputation and success of the SI program.

Model appropriate classroom behavior.
- Dress in clean, modest, non-offensive “student casual” dress.
- Keep your cell phone off during sessions and class.
- Focus on students and avoid disruptions and interruptions.

Maintain appropriate relationships with students in the class.
- Do not date any student in your SI class during the time you are the course SI leader.
- Do not privately tutor any student in your SI class or run study groups other than your weekly SI sessions.

Build an atmosphere of belonging and caring in your sessions.
- Show respect for students by learning their names and getting to know them.
- Acknowledge student questions and responses, showing respect for their effort during sessions, regardless of their proficiency with the material.

Be dependable.
- Use the SI semester calendar included in the Appendix of this manual to meet all training and administrative obligations and deadlines.
- If you have to miss or cancel a review session, make sure you follow the procedures in your Position Agreement to notify students and SI staff in advance.
- Keep scheduled appointments with your Coordinator or other SI staff.
- Attend all required training sessions.
- Be on time to training, your SI class, and your SI sessions.
AFFIRMATIVE ACTION/EQUAL OPPORTUNITY OFFICE

FOR MORE INFORMATION ON AA- AND EO-RELATED ISSUES CONTACT:
USU Affirmative Action/Equal Opportunity Office
Military Science Building, Room 216 (Southeast Entrance)
http://www.usu.edu/aaeo/index.html
9535 Old Main Hill
Logan, Utah 84322-9535
TEL: (435) 797-1266
FAX: (435) 797-0291

WHAT DOES THE AFFIRMATIVE ACTION/EQUAL OPPORTUNITY OFFICE DO?

Utah State University is dedicated to providing an equal opportunity climate and an environment free from illegal discrimination and harassment. In accordance with established laws, the University prohibits discrimination and harassment based on race, color, religion, sex (to include sexual harassment and pregnancy), national origin, age, disability, or veteran's status. In addition, discrimination and harassment on the basis of sexual orientation for employees in all aspects of employment and for students in academic programs and activities is prohibited by USU Policy (USU Policy Number 303: Affirmative Action/Equal Opportunity). The USU Affirmative Action/Equal Opportunity (AAEO) Office assists faculty, staff, students and recipients of University services/programs in implementing both anti-discrimination laws and University policies and in creating an environment where diversity is valued. We also work to ensure access to USU educational and employment opportunities for groups that have traditionally faced barriers to opportunities in these areas, and assisting leadership in overcoming the conditions resulting from past discrimination. With this in mind, the AAEO Office focuses on a variety of responsibilities which include (but are not limited to):

- Developing affirmative action policies, plans and programs at USU aimed at increasing the participation in the employment processes of underrepresented groups of women, minorities, people with disabilities, and veterans.
- Monitoring the representation and status of underrepresented groups at USU who are prospective or current faculty or staff.
- Enhancing awareness and sensitivity toward diversity and “differences.”
- Providing training on affirmative action/equal opportunity laws, policies, prevention of sexual harassment, valuing diversity, and other related topics.
- Investigating, processing and assisting to resolve illegal discrimination and harassment (including sexual harassment) complaints.
- Acting as Title IX and Section 504 Coordinator for the University.

WHAT IS AFFIRMATIVE ACTION?

Affirmative Action is designed to redress imbalances of minorities and women in the workforce. U.S. Presidential Executive Order 11246 (as amended) requires USU, as a federal contractor, to take affirmative steps to recruit, hire, and advance women and minorities when they are underrepresented in the University workforce and are qualified and available in the labor force. The Executive Order prohibits discrimination and requires USU to proactively undertake “good faith efforts” to determine underutilization of women and minorities in our workforce and to proactively work towards our affirmative action goals.

While affirmative action goals are not established for people with disabilities or veterans, the University also undertakes affirmative steps to recruit, hire, and advance people with disabilities and veterans, as required by the Rehabilitation Act of 1973; the Vietnam Era Veteran's Readjustment Assistance Act of 1974 (as amended); and the Jobs for Veterans Act (JAV) of 2002.

The University Affirmative Action Program (AAP) is published annually and is available for review in the AAEO Office.

WHAT IS EQUAL OPPORTUNITY?

Equal Opportunity in employment and education is an essential priority for USU, and one to which the University is deeply committed. USU is dedicated to providing an equal opportunity climate and an environment free from illegal discrimination and harassment to faculty, staff, students, and the entire University community. In accordance with established laws and policies, the University prohibits discrimination and harassment based on race, color, religion, sex (to include sexual harassment and pregnancy), national origin, age, sexual orientation, disability or veteran's status.

WHAT ARE THE LAWS/POLICIES THAT RELATE TO EQUAL OPPORTUNITY?

- Laws Relating Specifically to Students
  - Title IX of the Educational Amendments of 1972 (Higher Education Act) prohibits discrimination and/or harassment based on gender and includes sexual harassment, pregnancy and equal opportunity in athletics.

Information provided courtesy of Utah State University Affirmative Action/Equal Opportunity Office October 2008

THESE MATERIALS CAN BE MADE AVAILABLE IN LARGE PRINT, AUDIO AND BRaille FORMAT UPON REQUEST
Title VI of the Civil Rights Act of 1964 prohibits discrimination and/or harassment based on race, color and national origin.

Title II of the Americans with Disabilities Act and Section 504 of the Rehabilitation Act of 1973 prohibits discrimination and/or harassment based on disabilities and requires “reasonable accommodations.”

The Age Discrimination Act of 1975 prohibits discrimination and/or harassment based on age.

Laws Focusing on Employment

Title VII of the Civil Rights Act of 1964 prohibits discrimination and/or harassment in employment based on race, color, national origin, religion, or sex (including sexual harassment and pregnancy, childbirth, or related medical conditions).

Equal Pay Act of 1963 requires equal pay for men and women doing substantially equal work and requiring substantially equal skill, effort, and responsibility under similar working conditions.

Age Discrimination in Employment Act (ADEA) of 1967 as amended: prohibits arbitrary discrimination in employment on the basis of age (40 and above).

Section 503 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act (ADA) of 1990 prohibits discrimination and/or harassment based on disabilities and requires federal contractors to take affirmative action to employ and advance in employment qualified persons with disabilities and make “reasonable accommodation” where appropriate.

Section 402 of the Vietnam Era Veterans' Readjustment Assistance Act (VEVRAA) of 1974 prohibits discrimination and/or harassment and obligates the University to employ and advance in employment disabled veterans of all wars, Vietnam Era, and other qualified veterans. This has been modified by the Jobs for Veterans Act (JVA) of 2002.

The Uniformed Services Employment and Reemployment Rights Act (USERRA) of 1994 protects civil service rights and benefits for veterans and reservists called to active duty.

Women's Center/Re-entry Student Center
Director - 797-1728
Disability Resource Center
Director - 797-2444 or 797-0740 (voice/TTY)
Disability Parking
Parking Director - 797-3414
USU Children's House (Child Care)
Director, 797-3657
Counseling Center
Director - 797-1012
Veterans' Affairs Office
797-1102
Student Support Services
Director, 797-3372
Sexual Assault and Anti-Violence Information (SAAVI)
Office
Coordinator, 797-1510
GLBTA (Gay, Lesbian, Bi-Sexual, Transgender and Allied) Services
Coordinator, 797-9882

Employee Associations at USU

Faculty Senate
Professional Employees Association (PEA)
Classified Employees Association (CEA)

WHERE CAN AN INDIVIDUAL GO IF HE OR SHE HAS AN ISSUE OR COMPLAINT THEY BELIEVE COULD BE ILLEGAL DISCRIMINATION OR HARASSMENT?

Any University employee, student, prospective employee or student, or recipient of University services who believes he or she has been discriminated against or harassed on the basis of race, color, religion, sex, national origin, age, sexual orientation, disability or veteran's status is encouraged to discuss his or her issue(s) with the Affirmative Action/Equal Opportunity Office staff located in Room 216 in the Military Science Building (enter through the southeast entrance), or to call 797-1266.

Utah State University Policy Number 305 (Discrimination Complaints) provides information on the procedures used in filing and investigating a complaint of illegal discrimination.

REFERRAL SERVICES

Discrimination Issues/Complaints

Affirmative Action/Equal Opportunity Office
797-1266 (NOTE: The Director of the AAE Office is designated as Title IX and Section 504 Coordinator for the University)

Employee Relations/Management Issues

Office of Human Resources
Director - 797-1812
Employee Relations - 797-1813

University Services

Multicultural Student Services
Director - 797-1733

RETRIBUTION PROHIBITED!

The University (or any of its employees and students) is prohibited from retaliating against an individual who has made charges, testified, assisted with or participated in any way in any proceeding, investigation or hearing, or brought forth issues in regard to the violations or alleged violations of laws or orders relating to equal educational and/or employment opportunity.
SEXUAL HARASSMENT PREVENTION
FOR FACULTY, STAFF AND STUDENTS

FOR MORE INFORMATION ON AA- AND EO-RELATED ISSUES CONTACT:
USU Affirmative Action/Equal Opportunity Office
Military Science Building, Room 216 (Southeast Entrance)
http://www.usu.edu/aaeo/index.html
9535 Old Main Hill
Logan, Utah 84322-9535
TEL: (435) 797-1266
FAX: (435) 797-0291

SEXUAL HARASSMENT IS AGAINST THE LAW

You can find more information about these laws and policies by visiting the Affirmative Action/Equal Opportunity (AAEO) Office Web Site at: http://www.usu.edu/aaeo/index.html

1. **Title VII of the Civil Rights Act of 1964, as amended**: prohibits employment discrimination based on sex (along with several other protected categories). This includes sexual harassment as a form of sex discrimination.

2. **Title IX of the Educational Amendments of 1972**: prohibits sex discrimination against students (including sexual harassment) in educational institutions.

3. **The State of Utah Executive Order dated 13 December 2006**: recognizes that "unlawful harassment undermines the integrity of the workplace, destroys morale and offends social and legal standards of acceptable behavior" mandates harassment awareness training; prohibits retaliation; and requires development and dissemination of complaint procedures to all employees with emphasis on managers understanding their responsibilities in "identifying unlawful harassment and appropriately dealing with complaints and solving related problems."

4. **Utah State University Policy**: To read the complete policy go to the web address indicated:

   - **Policy Number 303: Affirmative Action/Equal Opportunity** [http://www.usu.edu/hr/policies/303.htm]: Outlines USU's commitment to affirmative action and equal opportunity laws, regulations and concepts. This policy prohibits all forms of discrimination and harassment based on race, color, religion, sex, national origin, age, disability, or veteran's status. In addition, discrimination on the basis of sexual orientation for employees in all aspects of employment and for students in academic programs and activities is prohibited.
   - **Policy Number 304: Discrimination Complaints** [http://www.usu.edu/hr/policies/304.htm]: Establishes the University's complaint procedures applicable to victims of sexual harassment (and any other form of illegal discrimination). The procedures establish that:
     a. an informal process may be utilized to resolve certain issues;
     b. a complaint may be brought to the Affirmative Action/Equal Opportunity (AAEO) Office up to 180 days of last occurrence;
     c. the AAEO Director shall conduct an inquiry into the formal complaint;
     d. an appeal may be filed if the findings of a formal complaint are questioned by either party;
     e. all sexual harassment matters and all complaints will be handled with discretion, confidentiality, and respect for the privacy and due process rights of all parties; and
     f. the University (or any of its employees and/or students) is prohibited from retaliating against an individual who has made charges, testified, assisted with or participated in any way in any proceeding, investigation or hearing, or brought forth issues in regard to violations or alleged violations of laws or orders relating to equal educational and/or employment opportunity.

3. **Policy Number 339: Sexual Harassment** [http://www1.usu.edu/hr/policies/339.htm]: Forbids the sexual harassment of any student, employee, or recipient of University services.

4. **Policy Number 407: Academic Due Process: Sanctions and Hearing Procedures** [http://www1.usu.edu/hr/policies/407.htm]: Section 407.10 specifically prohibits "consensual relations" (or any amorous relationship) between a student and faculty member when:
   1. the faculty member has the student in a class;
   2. the faculty member supervises the student's academic work (including TAs); or
   3. the faculty member can control or influence the student's current or future academic or professional success.

DEFINITION OF SEXUAL HARASSMENT

(The following is based on a definition provided by the Equal Employment Opportunity Commission (EEOC). The underlined portions reflect coverage of students under Title IX of the Educational Amendments of 1972)

Unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature constitute sexual harassment when:

1. submission to such conduct is made either explicitly or implicitly a term or condition of a person's employment or a student's academic success;
2. submission to or rejection of such conduct by an individual is used as the basis for employment or academic decisions affecting such individual; or
3. such conduct unreasonably interferes with an individual's work or academic performance or creates an intimidating, hostile or offensive working, or learning environment.

Over the years, the courts have used the above to define two distinct forms of illegal sexual harassment:

- **Quid pro quo** (something for something) sexual harassment is typified by the first two conditions listed above.
- **Hostile environment sexual harassment** is typified by the third condition. An individual needs to show that the sexual harassment adversely impacted on his/her job or academic performance, and created an offensive, intimidating and hostile environment.

Prepared by the Affirmative Action/Equal Opportunity Office - October 2008

These materials can be made available in large print, audio and Braille format upon request.
YARDSTICK FOR EVALUATING BEHAVIORS THAT MAY BE SEXUAL HARASSMENT

For a common-sense, everyday way of evaluating what may be sexual harassment, scrutinize the behavior(s) utilizing the following questions:

1. Is the behavior unwanted or unwelcome?
2. Is the behavior sexual in nature?
3. Is the behavior severe and/or pervasive?
4. Does the behavior have an adverse impact on the workplace or academic environment?

NOTE: Sexual harassment often occurs in the context of a relationship where one person has more formal power (such as a supervisor over an employee or a faculty member over a student) or more informal power than the other (such as one peer over another).

SEXUAL HARASSMENT COMES IN MANY FORMS - THEY ARE ALL ILLEGAL! The following are behaviors that have been shown to be sexual harassment when they are unwanted and accomplished under specific circumstances:

VERBAL

- Whistling or making cat calls at someone
- Making sexual comments about a person's clothing or body
- Telling sexual jokes or stories
- Asking personal questions about an individual's sex life, fantasies, preferences or history
- Repeatedly asking a person out who has clearly expressed a lack of interest
- Turning work discussions to sexual topics
- Referring to an adult woman or man as a "hunk," "doll," "babe," "honey," or other demeaning words or phrases
- Telling lies or spreading rumors about a person's personal sex life
- Direct or indirect threats or bribes for unwanted sexual activity

NON-VERBAL

- Paying unwanted attention to someone (i.e., staring, following, blocking a person's path)
- Displaying sexually suggestive visuals
- Making facial expressions such as winking, throwing kisses, or licking
- Giving letters, personal gifts, and/or materials of a sexual nature
- Making sexual gestures with hands or through body movement
- Invading a person's body space; standing closer than appropriate or necessary for the work being done
- Looking a person up and down ("elevator eyes")

PHYSICAL

- Hugging around, standing close to, or brushing up against a person
- Touching a person's clothing, hair, or body to include giving a massage around the neck and shoulders
- Hugging or stroking
- Touching or rubbing oneself sexually around or in view of another person
- Sexual assault or rape

WHAT TO DO ABOUT SEXUAL HARASSMENT?

You should immediately undertake some course of action. The Affirmative Action/Equal Opportunity (AA/EO) Office can provide advice and/or assistance to you in a timely, professional and confidential manner. Here are some specific options to consider:

1. Recognize sexual harassment when it happens. Understand that it is not your fault and that it does not "come with the job." Remember that sexual harassment is against the law and should be dealt with as quickly as possible.

2. When you experience unwelcome behavior of a sexual nature, talk to the perpetrator if possible. Tell him/her that you find the behavior offensive. Describe how the behavior negatively affects your work or study environment and that you want it to stop.

3. If you don't feel like speaking directly to the person, you may want to put your objections to the behavior(s) in writing, sending a copy to the harasser and keeping one in your file. Say:
   a. On "this date" you did "this."
   b. It made me feel "this."
   c. I want "this" to happen next (i.e., I want "this" to stop).

4. Document all behaviors which are or could be sexual harassment or conversations about the incidents. Record the date, time, place, people involved, and who said what to whom.

5. Consider talking to others (co-workers/students) to see if they have experienced similar behaviors.

6. Consider your behavior. Sexual harassment is illegal and wrong and you should not encourage the action. You are not at fault but you might want to evaluate elements of your own behavior and how you might better communicate to the individual that you are uncomfortable with his/her actions. Don't encourage harassers by smiling, laughing at their jokes, "flirting back," or otherwise participating in the behavior.

WHO TO TALK TO ABOUT SEXUAL HARASSMENT CONCERNS?

If you feel you are the victim of sexual harassment, you may seek advice and assistance or file a complaint with the USU AA/EO Office (location & contact information listed above). You may also choose to file a complaint with one or more of the following state/federal offices:

- The Utah Antidiscrimination Labor Division (UALD) in Salt Lake City
- The Equal Employment Opportunity Commission (EEOC)
- The Office for Civil Rights, U.S. Department of Education

You are encouraged to discuss the issue with your supervisor, advisor, teacher, or somebody in the supervisory chain.

There are several offices on campus that can assist you and possibly provide some support, and you are encouraged to use them as resources. However, the AA/EO Office has ultimate responsibility for investigating and assisting in the resolution of complaints of sexual harassment at USU. Some of these other offices include:

- The Women's Re-entry Student Center, 797-1728
- The Counseling Center, 797-1012
- USU Police, 797-1939
- Campus Judicial Officer, 797-1754
- Sexual Assault and Anti-Violence Information (SAAVI) Office, 797-1510
- GLBT (Gay, Lesbian, Transgender and Allied) Services, 797-9882
Section 3:
Administrative Responsibilities
Rolls / Attendance

Rationale
SI rolls are the source for all SI data that is used to produce monthly, semester, and annual reports. These reports include outcome analyses that support funding of the program and identify the effect of SI on student grades and retention. **You are required to submit your rolls on time so that these reports can be produced by established deadlines.**

Attendance Database

Log on to the attendance database at [http://www.usu.edu/arcsi](http://www.usu.edu/arcsi) or linking to it from the Canvas homepage using your banner A-number and password.

![Attendance Database Interface]

1. Select the course for data entry
2. Sync the database with the current banner folder if necessary
3. Select a date to input into the database
4. Save the date into the database

To print your roll: Click on the first excel button next to the course name

To access course attendance statistics: Click on the second excel button next to the course name.

**IMPORTANT:** Deleting a date from the database will permanently remove all attendance data for that date.
Inputting Attendance Data

1. Select a date for data entry
2. Check the boxes for students who have attended SI for that date
3. When you have finished inputting data, press the save button at the BOTTOM of the attendance

At the bottom of the list, there are blank forms to input new students who do not appear on the roll sheet. Adding new students must be done carefully to avoid typos and errors.

DO NOT DELETE STUDENTS FROM THE ATTENDANCE DATABASE

Distributing Your Roll

Distribute your roll at the beginning and end of each session to make sure every student who attends has an opportunity to mark his/her name.

Ideas to make roll marking easy for students

1. Mark columns using colored highlighters. Tell students which color is the current day.
2. Post the roll by the door or in locations around the room. Tell students to mark one of these before they leave.
3. Ask the class at different intervals if they have signed the rolls.
Time Cards and Rolls

Rationale
Student employees are paid twice each month via direct deposit on the 10th and 25th of each month. You are required to submit your hours worked via a time card. You will receive a schedule of due dates for time cards and rolls, and you will also be sent at least one reminder e-mail from the ARC Staff Assistant. Time cards and rolls not received by the due date will not be processed for a paycheck until the subsequent pay period.

NOTE:
For purposes of university policies and regulations, SI Leaders are hourly, non-exempt employees. Even though it is rare than an SI Leader will encounter this situation, hours worked in excess of 40 hours in a work week for all university jobs combined are compensated at one-and-one-half times the regular rate of pay. However, overtime hours must be pre-authorized by the employer before the employee works the hours.

To ensure compliance with the regulations, SI Leaders must notify the ARC if they are working another job on campus, identify where the job is located, and how many hours per week they are working. SI Leaders are required to notify the ARC Director in advance if it appears that in any week their combined hours from all on-campus jobs could potentially exceed 40.

Handling Your Time Card

STEP 1-Pick up your time cards in the ARC, TSC 305 or in training.

STEP 2-Fill in the information on the time card as indicated on the next page.

STEP 3-Turn your signed time card into the ARC Staff Assistant by 5:00 P.M. on the dates indicated on your time card schedule and SI Calendar. Late time cards will be processed the subsequent pay period.
Filling in Your Time Card

Fill in the personal information along the top of the card. NAME, A NUMBER, MONTH/YEAR, PAY PERIOD.

Enter the dates and amount of time spent working. Time is indicated in decimal form.

You must sign your time card for it to be processed.

Calculate the total hours worked in the pay period.

Due Dates

In general, time cards and rolls are due on the 15th and the last day of every month. If either of those dates falls on a weekend, the time card and roll are due the Friday before the 15th or the last day of the month.

The exact due dates are available on the Canvas SI site and can be viewed in the Canvas calendar. You will also receive notifications through Canvas to remind you of important due dates.
SI Weekly Reflection

Each week you will complete a reflection assignment on Canvas that will be monitored by your coordinator. Your coordinator is your peer supervisor and this reflection allows you to speak freely with your coordinator about any questions or concerns you may have. It is also somewhere you can track your own progress towards your goals. Each reflection will include the following questions:

- What went well with my sessions this week?
- What could have been improved or changed from my sessions this week?
- What are my current goals? What progress have I made towards my goals?
- New teaching activities/strategies I used this week.
- Questions/comments/concerns about my SI sessions, or training I would like to address to my coordinator.
- Please copy your gameplan that you have sent to your students about next week’s SI sessions.

Your coordinator will review your reflection and discuss it with you during observations. These reflections are found on the SI Canvas site. Clicking on Weekly Reflections from the homepage will take you directly to the reflections. They will be due at the end of each week.
Administer Student Evaluations

Rationale
The ARC works diligently to maintain the quality of the SI Program. Conducting student evaluations in SI courses helps leaders and the ARC Director know what we are doing well and what needs to improve. To accomplish this objective, you will conduct two student evaluations each semester, one at mid-term and one at the end of the semester.

Mid-Term Evaluations

STEP 1
Arrange with your course professor a specific day and time to administer the evaluation. Let him/her know the evaluation will take approximately five minutes and can be done at the beginning or ending of class.

STEP 2
Ask students to use a blank piece of paper. Each student should complete the evaluation even if they have not attended SI.

STEP 3
Describe to students that they need to answer the following four questions:

<table>
<thead>
<tr>
<th>How many sessions have you attended? ____</th>
<th>What do you want your SI Leader to START DOING?</th>
<th>What do you want your SI Leader to STOP DOING?</th>
<th>What do you want your SI Leader to KEEP DOING?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

STEP 4
Collect the evaluations and review the comments. Evaluate what needs to change or remain constant for your sessions.

STEP 5
Arrange a time to meet with your coordinator to discuss the evaluation results and set goals as necessary for the remainder of the semester.

End of Semester Evaluations

At the end of the semester, students will again be asked to evaluate the SI program and their SI leader. These evaluations will be conducted electronically via email. More information about these evaluations and how they are conducted will be provided to you during training.
Utilizing Canvas for SI

Canvas is the new dynamic web interface that courses will be adopting campus-wide starting summer 2012. Some courses will have already adopted Canvas. The SI program has implemented Canvas as a hub for all things related to SI. This section will provide tools, tips and explanations on how to use the SI canvas site and to build a Canvas site for your SI course.

Communication through Canvas

Canvas communication is extremely flexible and allows students to choose how they want to receive communication about their course. Students, TA’s and professors can choose how and when they will receive communication. As an SI leader you will also receive communication from the director and program assistant through Canvas and it is important that you set up your profile for the means of communication that work best for you.

For the SI Canvas site, you will receive announcements, and feedback on assignments. Please choose a communication method to receive these announcements that you will check DAILY.

Communication Structure of Canvas
Changing Communication Preferences

**STEP 1**

Click on the Profile link next to your name.

If there are any external services you would like to add, such as Facebook, click those to incorporate them into your Canvas account.

**STEP 2**

Click on the Notifications tab on the left hand toolbar.

Here you will see a list of notifications you can receive from Canvas. You can also modify how and when you will receive notifications.

**STEP 3**

Modify and add methods of communication from Canvas.

This first dropdown menu allows you to choose the method of communication.

This dropdown menu will allow you select different email addresses or phone numbers that you can use to receive notifications.

These buttons will allow you to choose how often you receive announcements of this type.
Navigating the SI Canvas Site

Homepage

This page will act as a hub for all information relating to SI. By following the links you can access information that will help you in SI training, or planning and teaching your sessions.

Syllabus

The Canvas syllabus has a brief description of the duties assigned to you as an SI leader. Along with a list of assignments for 1st semester leaders, there are important dates such as due dates for time cards, trainings that require ALL leaders to attend, and other important dates for the SI program.
**SI Leader Manual**

Along with the print version of the SI manual that each leader receives, there will be an electronic version found here. This electronic pdf is indexed and searchable. Along with the pdf, there is a kindle friendly version for download to use with the Kindle or any Kindle reader such as those found on mobile phones.

**Attendance Database**

This link will send you directly to the attendance database where you will enter the attendance data from your rolls.

**First Semester Assignments**

As part of the CRLA tutor certification, all first semester SI leaders are required to complete several assignments. This link takes you to a learning module with all the first semester assignments. These assignments are due prior to training on the week they are assigned.

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Due</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position Responsibilities</td>
<td>Sep 1</td>
<td>10 pts</td>
</tr>
<tr>
<td>VARK</td>
<td>Sep 6</td>
<td>10 pts</td>
</tr>
<tr>
<td>Planning Forms</td>
<td>Sep 9</td>
<td></td>
</tr>
<tr>
<td>Attendance Strategies</td>
<td>Sep 8</td>
<td>10 pts</td>
</tr>
<tr>
<td>Developing SI Relationships</td>
<td>Sep 8</td>
<td>10 pts</td>
</tr>
<tr>
<td>Bloom's Taxonomy</td>
<td>Sep 13</td>
<td>10 pts</td>
</tr>
<tr>
<td>Course Syllabus</td>
<td>Sep 13</td>
<td></td>
</tr>
<tr>
<td>Super Session Request</td>
<td>Sep 15</td>
<td></td>
</tr>
<tr>
<td>Teaching Study Skills</td>
<td>Sep 29</td>
<td>10 pts</td>
</tr>
<tr>
<td>Mid-Term Training Evaluation</td>
<td>Sep 29</td>
<td></td>
</tr>
<tr>
<td>Schedule Peer Observation - ALL LEADERS</td>
<td>Sep 29</td>
<td></td>
</tr>
<tr>
<td>Peer Observations DUE - ALL LEADERS</td>
<td>Oct 27</td>
<td></td>
</tr>
<tr>
<td>Sexual Harassment Prevention</td>
<td>Nov 3</td>
<td></td>
</tr>
</tbody>
</table>

**Weekly Reflections**

The Weekly Reflections link will take you to a learning module that contains a reflection for each week of the semester. This is a place to review your goals and the progress you have made towards them. You will also be able to let your coordinator know what new things you have tried and what activities have worked for you and what has not. Your coordinator will review these reflections and discuss them with you during your observations.
**Learning Activities**

This link will take you to a list of learning activities. Like any wiki, these learning activities can be edited and improved upon. If you have used one of these learning activities you can let future SI leaders know that it worked for your class and you can add additional notes that made the activity more successful in your specific course. You can also submit a new learning activity if you have created a new activity and want to share it with other SI leaders.

**Planning Forms**

From this page you can download an interactive PDF of the SI session planning form. You can either print the blank form and fill it in by hand, or you can type information into the PDF document itself and use it to plan your SI sessions.

**Training Slides**

This link will take you to the slides used for SI training. After each training this section will be updated with the most current slides so you can access them to review the information covered in training.
Section 4:
Developing SI Relationships
The SI Leader and SI Support Team

Roles of SIST Members:

SI Director
- Director, Academic Resource Center
- Directs all aspects of the SI program, including funding, hiring, training, policies, data analysis

SI Program Assistant
- Provides support for all administrative aspects of the SI program
- Helps plan, prepare, and present weekly training and coordinator meetings
- Schedules classrooms for sessions and test reviews
- Screens SI applicants
- Maintains SI Canvas site

SI Coordinators
- Help plan and present weekly training
- Observe, guide, coach, and mentor 6-8 SI leaders
- Conduct coordinator groups and evaluation feedback
- Help director make leader rehire decisions
The SI Leader and Students

Students need to have a WIIFM “What’s in it for me?” reason to know that attending SI sessions are worth their time. The quality and relevance of your sessions and your interactions with students will be factors in ensuring attendance.

Things to do:

- Recognize the limits of your role. You are a peer teacher who is competent in the course material, trained to assist students in learning and understanding it. Your course professor is the “expert”.

- Acknowledge when you do not know an answer and work with your professor or other resources to provide the information.

- Ensure all students are sent your weekly "Game Plan" with topics to be covered, as well as handouts or study guides you want students to work with in the session. Game Plans and study materials should preferentially be posted to Canvas, but they can also be emailed to all students.

- Maintain frequent communication with your students, including regular class and email announcements and prompt response to student questions.

- Sit in a different location each class session to help students become acquainted with you. Be approachable, patient, and genuinely interested in the students’ success.

- Support the course professor. Communicate consistently that the professor is an ally, not an adversary.

- Refer students to appropriate campus resources when they share difficulties they are having. Use the Campus Resources information provided in this section.

What not to do:

- Do not give students copies of your lecture notes. Do not use previous course exams or study guides without direct approval from your course professor.

- Do not give students your phone number or tutor them individually. If a student cannot attend a session, direct him/her to your Canvas or Google Group for session materials.

- Do not enter into a dating relationship with any student in your class during the time you are an SI leader for that course.
The SI Leader and Course Professor

Things to do:

- Meet with your course instructor prior to the first day of class. Become acquainted and develop the positive working relationship that is critical for a successful SI experience.
  - Give your instructor the schedule of SI sessions so he/she can include them in the class syllabus.
  - Before the first class, obtain a syllabus and class materials such as text book, solutions manuals, access to online materials and/or course Canvas site.

- Meet weekly with your course professor to discuss how SI sessions are going. If your professor wants to understand how SI works, schedule a time for him/her to attend one of your sessions. However, the professor should only observe and not interact or be involved with presenting information or answering questions.

- Work with your professor to promote SI and make announcements in each class. Be creative about how you motivate students to attend.

- Be helpful to the professor in class when possible, such as offering to help with computer equipment, distributing materials, etc.

- Share handouts you prepare for SI sessions. Professors may have excellent ideas for additional materials you can distribute to students.

- Refer the professor to talk with the SI Program Director regarding any questions or concerns that fall outside of your responsibilities.

What not to do:

- Do not criticize the professor or aspects of his/her class. Meet with your professor to respectfully discuss any concerns you or the students have.

- Do not grade papers or tests, help create test questions, or preview tests.

- Do not use previous course exams or instructor-created study guides for any SI session without direct approval from your course professor.
Referring Students to Campus Resources

There may be times when students share information with you about difficulties they are experiencing. The information below will help you refer students to available campus resources. Most of these resources are free to full-time students.

**Academic Support Services**

Academic Resource Center  
http://www.usu.edu/arc  
(435) 797-1128  
The Academic Resource Center provides:  
- PSY 1730: Study strategies  
- Supplemental Instruction  
- Math and statistics tutoring  
- Individual study skills consultations

University Advising  
http://www.usu.edu/advising/advisors  
(435) 797-3373  
Advisors help students:  
- Clarify educational goals  
- Plan classes  
- Utilize the resources at USU

**Disability Support Services**

Disability Resource Center  
http://www.usu.edu/drc/services  
(435) 797-2444  
The Disability Resource Center provides:  
- Alternate-format print materials: Texts and other materials can be made available in digital format, recordings, or large print.  
- Accommodated testing: Extended time, readers, scribes, and distraction-reduced testing rooms are available  
- Note-takers: Note-takers in the class provide notes for eligible students.  
- Sign language interpreters and transcription services.  
- Assistive technology: The Assistive Learning Center has assistive technology for student use and a trained technician to work with students  
- Communication support: Sorenson VRS, TTY, and assistive listening devices are available.  
- Equipment loan: Tape recorders, hand-help magnifiers, AlphaSmart, and other small devices are available for checkout.  
- Architectural access: The DRC will assist students in arranging access to writing desks, chairs, and alternate class locations.

**Emotional/Mental Health Support Services**

Counseling and Psychological Services  
http://www.usu.edu/counseling/services  
(435) 797-1012  
The Counseling Center provides:  
- Individual and group counseling and psychoeducational workshops  
- Reach Peers: Volunteer undergraduates meet with fellow students and are trained to do supplemental work with Counseling Center clients.  
- Psychological and psycho-educational assessment.
Section 5:
Attendance Strategies
The Student Mentality: A Hurdle to Jump

To survive in their world of competing demands and priorities, students tend to engage in REM behavior – Rational Effort Minimization. One way of understanding REM is that students consciously decide what the least amount of effort is required for them to accomplish a specific goal or succeed in a specific class. You have probably experienced this yourself!

Many students in SI courses engage in REM. They may not perceive SI as a priority worth their time and effort, especially if they miscalculate the difficulty of the course and minimize the study time necessary to earn good grades. To help students overcome REM, you need to help them discover their WIIFM - “What’s in it for me?” If students believe that SI offers something worthwhile for them, they will put forth the effort to consistently attend.

SI leaders need to explicitly and consistently persuade students that coming to SI is a very effective REM behavior. Help students believe that by devoting two to three hours per week, they will learn more material in a more effective way and that putting the effort into attending SI will result in improved grades and improved study skills.

The following points are a few thoughts to share with students to let them know “What’s In It For Them” by attending SI. Make these points during the first week of classes and remind students of them throughout the semester.

- SI is not a program for the “struggling student”. It is a program designed to help any student, master course material, prepare for exams, and prepare for a successful college career.
- SI Leaders have demonstrated a good working knowledge of the course material by receiving a high grade in the course and are typically majoring in the content area of the class.
- Students who attend SI three or more times during the course of a semester typically earn 2/3 higher grades than those who do not attend.
- Encourage every student to try SI out with YOU at least once regardless of what their preconceived notions are about SI or the course.

1 concept shared with the SI program by Dr. Scott Bates, USU Psychology professor
Basic Attendance Strategies

1. In-Class Announcements / Lesson Plans
Each day in lecture you should make an SI announcement. This will remind students that SI is available. Be creative in how this announcement is made: use a PowerPoint slide, write on the whiteboard, etc. Be sure to announce the times, locations, and content of each upcoming SI session. Remember that students need a WIIFM to attend so plug that into your announcement.

2. Communicate, Communicate, Communicate
A. Create an E-Mail Distribution List
At the beginning of the term, you may ask students to e-mail you to be added to an SI distribution list that will be active throughout the semester. Let students know that by signing up for this e-mail, they will receive:
- reminders about what is going on in SI.
- handouts and other study aids developed for SI.
- other test preparation materials developed for SI.

B. Canvas
Another option for students to gain access to SI materials and stay up to date with what is happening is by utilizing your instructors Canvas site. Some professors have developed wonderful Canvas sites; ask if you can put SI materials there since students will already be using the site for class.

C. Weekly Game Plan
Each week you are expected to create an SI Game Plan, which will address student’s needs and remind them of SI. Be creative with your Game Plans and make sure that it is clear what students will gain by attending SI. Gameplans can be sent via Canvas or email. Below is an example of a Game Plan.

Hello everyone!
This past week in lecture the professor covered chapters 13 and part of 14. According to the syllabus next week he will cover the rest of chapter 14 and start chapter 15. That means that SI next week will be dedicated to the material in chapter 14! Remember, the next exam is 2 weeks from Monday. Review early, review often and come to SI. Here’s the plan for next week’s SI sessions:

**Monday March 1 @4:30pm ENGR 101**
Chemical kinetics and rates of reactions

**Thursday March 4 @7:30pm MAIN 121**
Equilibrium worksheet (on the Canvas site)

Remember, all of my slides, worksheets and practice problems are on Canvas, the solutions are in SI!

See you on Monday!

SI Leader
Other Great Attendance Strategies

1. Create Materials and Handouts
SI is a perfect place to show students how to create study guides. When study materials are created during SI, students leave with something tangible that reminds them of the value of SI. Use handouts as an attendance strategy to get students to come once and then keep them coming back for more. Post your handouts to the course Canvas site and e-mail them to students.

2. Meet Your Students and Use Them to Advertise
One way to help students feel comfortable coming to SI is to help them get to know you personally. Sit in a different spot each class session. Talk with them to invite them to SI and to encourage them to ask you questions after lecture. Ask students to share with classmates how SI has helped them. You don’t have to be the only person telling students to come.

3. Listen and Address Student Feedback
Students will conduct a mid-term evaluation about what they want you to start, stop and keep doing. Seriously consider their comments and implement the adjustments that make the most sense. You can conduct other informal evaluations throughout the semester to help improve your sessions. It will be clear to students that your goal is to help them with what they need most.

4. Professor Announcements and Mock Sessions
Talk to your course professor before the semester begins. Ask him/her to make frequent reminders during class about attending SI, especially when a difficult concept is covered. The professor’s support of you and SI adds credibility that will motivate students to attend. Ask your professor to allow you some time during an early class session to conduct a five minute mock SI session so students can see what SI is like. Be confident in your professor’s support of SI.

5. Entice Students
After the first exam, ask your professor to create and announce a comparison showing test scores for SI attendees and non-attendees. Ask your professor to pose a difficult question or problem during lecture and tell students that they can review the answer during the next SI session.

6. Create Test Preparation Materials
Collaborate with your professor to prepare a practice exam that is distributed to students, with the answers being reviewed during SI. Students who cannot attend SI will still receive the exam, and you can encourage them to meet with other students to complete it. Another idea is to discuss with your professor the possibility of having the students create questions in SI that he/she could use on the exam. This will help them develop the skills to think like their professor and to feel some “ownership” of the test.
Section 6:
Planning, Organizing, and Conducting SI Sessions
Planning SI Sessions

Good teaching requires thoughtful, careful preparation before you walk into the classroom. This section describes an effective planning process that you are expected to follow when preparing for your SI sessions.

Step 1: Determine Learning Objectives
Learning objectives are your “map” for each session. They guide you in determining the information to review in an SI session; assessing the learning levels expected of students by their professor (Bloom’s Taxonomy, discussed in Section 7: Effective Teaching Methods); and selecting the teaching strategies that will actively involve students in learning the information.

Example:
After this session, students will be able to:
1) name the four types of fats
2) describe their chemical structure
3) describe their metabolic roles
4) describe health effects caused by deficiencies or excesses of fats in the diet.

Use the following questions to develop learning objectives for your sessions:

1. What were the main concepts taught by the professor? What concepts will be the most difficult for students to understand?
2. What other concepts could likely be on the exam, which were discussed only briefly or were in the assigned reading and not discussed?
3. What prerequisite information is necessary for students to understand so that they can learn the important and/or most difficult concepts?

Step 2: Determine Learning Levels (Bloom’s Taxonomy)
Identify the level of knowledge that students will be expected to demonstrate for each objective. You can determine this through discussion with your professor, your personal experience with the class, and by reviewing your professor’s previous exams.

Step 3: Select Teaching Strategies
Select an appropriate teaching strategy that will help your students become actively involved in achieving the learning objectives. If your teaching strategies do not support your objectives, you may create a session that confuses or frustrates students. Section 8: Teaching Strategies and Learning Activities and Section 7: Effective Teaching Methods will help you in this process.
SI Session Planning Form

What were the main or most difficult to understand concepts?
1.
2.
3.

What concepts could be on the exam that were discussed briefly in class or in the assigned reading?
1.
2.
3.

What prerequisite information do students need to understand these concepts?

Learning objectives for this session:
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Additional Ideas for Effective SI Sessions

Know in Advance
Don’t be afraid during class to ask students, “Who is coming to SI this week?” This can help you plan because you will have a general idea of the size of session to expect. Always plan for a bit more than expected.

Keep Sessions Informal and Friendly
It is important that students always feel that they are welcome in SI and that it is a learning environment for everyone. Create an atmosphere where students feel safe to take chances and ask or answer questions that they may not be comfortable asking the professor. Build rapport with your students. Ensure that your eye contact, speech rate, volume and pitch are all appropriate for the learning environment.

Build Flexibility into your SI Sessions
There will be times when what you plan for your session is not what students indicate they need. Be prepared to deviate and adapt your plan to meet their needs. Plan for various group sizes to accommodate for large or small attendance.

Prepare for Participation and Expect It
Prepare your session so that students are consistently engaged in the learning process. One way to demonstrate this expectation is by using effective questioning techniques and allowing sufficient wait-time for questions to be answered.

Use Clear Board Work
Write large enough for everyone to read. Black and blue markers are the best for writing on the board; use red and green to highlight points or illustrate only. Prepare your board work in advance when possible.

Support Students by Empowering Them
Encourage students to form small study groups outside of SI. This will be a study strategy that will help them in any class.

Be Available
Publicize your e-mail address and remain approachable during class and during session. DO NOT give out your phone number, you are not expected to be available “24/7”.

Utilize the SI Canvas site and Other Web Resources
The SI Canvas site contains excellent teaching materials and other resources created by previous SI leaders, such as quizzes, outlines, and learning activities. Take advantage of these resources to help you plan your sessions.
Large Group Strategies

Preparing volunteers
In large groups there is a diffusion of responsibility, so asking for volunteers to work problems or present an idea is difficult. Before class starts, know which problems you want volunteers to solve; ask specific students to solve the problem before SI starts. They can still say no, but a face-to-face invitation yields better results than asking the entire group.

Using the roll
Often one or two students in a large group volunteer all of the answers. Everyone else recognizes this and never raises their hand to answer. After you distribute the roll, use it to call on random individuals. Most of the class knows the answers but are too timid to volunteer.

Doubling up group work
Group work can be difficult, especially for 10+ groups. Assigning multiple groups the same problem can remedy this. All groups prepare to present their results but only choose one of the groups to present. The other groups can then verify their results.

Assigning leaders
Group work is hard because they aren’t sure who takes charge. Assigning a “group leader” responsible for making sure the group gets the work done helps the group start working.

Observing the crowd
With large groups it can be intimidating to look out at their faces, but it is necessary to know your students’ faces. Over a couple of sessions you can tell who is getting the material and who isn’t. You can also get a feel of when things are confusing or moving too slow by judging the body language of students. This helps you gauge the class and adjust your teaching.

Preparing material
It is hard to gauge how fast or slow to go with a large group. Planning the same way for a small group, as far as time is concerned, usually results in leftover material. Don’t rush through material just to get through it. Skip problems that don’t feel pertinent at the moment and save them for another SI session. It benefits the students more to cover fewer topics thoroughly than many topics quickly.

Crowd control
The hardest part of large group dynamics is that they act like an audience. For a session to be successful, the students and SI leader work together. Go into the session with the attitude of benefitting the students. Be firm when they are loud and talkative. Be flexible with your learning objectives in the SI session. A balance between the students and the SI leader makes large sessions feel more comfortable. The students and leader share mutual respect and know what to expect from each other.

Written by Chris Plowman, SI Leader and Coordinator, Fall 2010
Super Sessions

What is a Super Session?
A Super Session is a special SI session held to prepare students for exams. Super Sessions often are held at a different time and location than regular SI sessions. Super Sessions are typically between 1-2 hours depending on class needs and are held a few days prior to a test.

Why do we need Super Sessions?
Super Sessions are not needed for all courses. Super Sessions are an effective way to process a large amount of information with your students prior to an exam. Super Sessions have become a student expectation when SI is offered; however, if you feel that a Super Session is not needed, you are not required to conduct one.

When do I conduct a Super Session?
Super Sessions should be held 2-3 days prior to an exam date. DO NOT hold a Super Session the night before an exam, as this teaches students “just in time” learning. Also, select dates and times that will encourage a greater portion of the class to attend.

How do I conduct a Super Session to fit the SI Model?
Super Sessions typically have a much larger than normal attendance when compared to your normal SI sessions. It is very easy to revert to a question and answer session in Super Sessions. To avoid this, plan for specific of topics you will review, and stick to that plan.

How do I react to “just in time” learners?
Typically, during Super Sessions you will meet new students who want to go over all of the course material during the session. This is not possible. Be respectful, answer questions that relate to the material you prepared, encourage them to come more consistently between tests, and keep to your plan. Encourage students to form study groups to review material that was not covered in SI.

How do I schedule my Super Sessions?
During training you will be expected to fill out a Super Session Planning Form like the one on the next page, which you will give to the SI Program Assistant. This form guides your planning for each exam in your course. It will help you decide if your current room and time will meet your needs for a Super Session and help you request a different room if needed. Once received, the SI Program Assistant will work with the Registrar’s Office to schedule a room, if necessary, for the session. The SI Program Assistant will confirm the details with you once approved.

NOTE: The registrar requires one week’s notice, thus all room requests must be given to the SI Program Assistant at least one week prior to a Super Session date. Failure to provide sufficient notice will likely result in an SI Leader’s inability to obtain a different classroom.
<table>
<thead>
<tr>
<th>Final</th>
<th>Exam 4</th>
<th>Exam 3</th>
<th>Exam 2</th>
<th>Exam 1</th>
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**Super Session Planning Form**

<table>
<thead>
<tr>
<th>Date of Exam</th>
<th>Proposed Data for Super Session</th>
<th>Proposed Time for Current Room (OK?)</th>
<th>Expected Number of Students (50-70% of Class)</th>
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Section 7:
Effective Teaching Methods

References for this section:


Bloom’s Taxonomy of Thinking and Learning

“Questions may be the most powerful technology we have ever created.”
- Jamie McKenzie, Beyond Technology

Think about a special skill, interest, or athletic ability that you have...
- How did you first learn it? What skills did you first develop?
- How did you continue to improve and become proficient?
- What is something that you know or can do now that you didn’t know or you weren’t able to do when you started?
- What would have happened if you had not been willing to learn new things or develop new skills? Would you have stayed a novice versus the expert you are now?

Abilities grow from basic levels to more advanced levels – you always need the basics, but you must build on them to become more skilled.

Likewise, college professors expect students to learn not only the basic facts, but also the theories and concepts that underlie those facts. One way of visualizing this process is through Bloom’s Taxonomy of Thinking and Learning, which shows the levels of thinking that college students must engage in to be academically successful as well as to perform well on course exams. Students begin as novice learners/thinkers and develop into expert learners, thinking more critically about information. You help students develop these skills by applying Bloom’s Taxonomy to teaching methods and questioning techniques.

The foundation of Bloom’s Taxonomy is the basic knowledge level of thinking (often called “rote memorization”) and the “pyramid” of learning moves upward toward more complex levels of thinking, as described below.

```
Evaluation: Critique information, make informed opinions and judgments
Synthesis: Use current knowledge to form a new idea, conclusion, or product
Analysis: Notice patterns of facts, data, concepts, compare and contrast, and make informed conclusions
Application: Apply what you know to different “real-world” situations
Comprehension: Restate and summarize information, like telling the plot of a story or movie
Knowledge: memorize and recall facts, figures, and concepts
```
Cognitive Load
Explaining Why Students “Tune-out”

Phenomenon of Tuning-Out

Think of a classroom setting where you were either bored or overwhelmed. Both of these feelings lead to tuning out, where a student's focus is no longer on the material but on their phone, what their evening plans are, or the upcoming sporting event. Below is a chart of typical instructor behaviors that lead to tuning out.

<table>
<thead>
<tr>
<th>Bored</th>
<th>Overwhelmed</th>
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</thead>
<tbody>
<tr>
<td>Present simple material too slowly</td>
<td>Present difficult material too fast</td>
</tr>
<tr>
<td>Provide overly simple, tedious or irrelevant tasks</td>
<td>Provide a complex task with many directions</td>
</tr>
<tr>
<td>Cover a topic repeatedly that does not require it.</td>
<td>Breeze through a topic that is difficult</td>
</tr>
<tr>
<td>Does not engage the students</td>
<td>Imposes unrealistic demands on students</td>
</tr>
</tbody>
</table>

By analyzing the causes of these two student reactions, a pattern begins to emerge. There is a “sweet spot” when teaching material that engages the students in the material without overwhelming them. This is where cognitive load becomes relevant.

Cognitive Load

Cognitive load is the cognitive demand of a learning task. There are two factors that determine the load placed on a student.

1. Intrinsic difficulty of the material
2. Difficulty or complexity of the learning activity

Unfortunately, as an SI leader, you cannot control the difficulty of the material the students have to learn. However, you can choose which learning activity to use when teaching a new concept. Thus, your responsibility as an SI leader lies in determining what topics to cover from the course and then selecting appropriate learning activities to match those topics.
Choosing Learning Activities

Learning activities are the only contributor to cognitive load that you have direct control over. This makes choosing learning activities an important task. Assessing the difficulty of course material is usually straightforward, but assessing learning activities can be challenging. By using the factors below that contribute to the difficulty of a learning activity, you can properly gauge how much the learning activity will contribute to the cognitive load of the learning task.

Factors contributing to learning activity difficulty
- Complexity of the instructions
- Length of the task
- Social difficulty
  - Group work
  - Working in pairs
  - Public presentation
- Varying learning modalities (VARK)
- Using unfamiliar materials
  - Note cards
  - Handouts
  - Visual organizers
  - Technology

You can gauge the appropriateness of your learning activity by assigning a rating of difficulty to both the material you are trying to present and the learning activity. By drawing a line between the two ratings you can roughly determine whether the students will be actively engaged in the material, bored, or overwhelmed.

<table>
<thead>
<tr>
<th>Difficulty of Material</th>
<th>1</th>
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<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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<th>8</th>
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<th>10</th>
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<tbody>
<tr>
<td></td>
<td>Boredom</td>
<td>Active engagement</td>
<td>Overwhelmed</td>
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<tr>
<td>Difficulty of Activity</td>
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<td>3</td>
<td>4</td>
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<td>6</td>
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Scaffolding and Increasing Student Mastery

Students often have to perform complex tasks with complex content. Initially these tasks are too difficult for students, but by gradually increasing the difficulty of the learning task coupled with the topic, students can master the material at more complex levels. The more mastery of a subject a student achieves, the less the cognitive load that subject places on the student.

Example of scaffolding a learning activity

Learning objective: SI leaders will be able to create lesson plans for complex topics.

Learning activity 1 – Crossword puzzle with terms related to cognitive load and Bloom’s taxonomy

Learning activity 2 – Groups are presented with a topic from an SI course and a list of possible learning activities. The groups have to choose the most appropriate learning activity for the topic they are given.

Learning activity 3 – Think-pair-share. Students will choose a complex topic from their course and then with a partner develop a lesson plan to get students to a mastery level of that topic.

For complex material that requires higher level’s thinking, this method can bring students from base level knowledge to mastery within one SI session. Scaffolding with learning activities also reduces the chance of overwhelming students with a very difficult learning task.
Questioning Techniques

Teaching research indicates that asking questions is second only to lecturing and that teachers spend 35-50% of their instructional time asking questions. In general, research shows that instruction involving questioning is more effective than instruction without questioning. If your questions focus attention on the most important elements of course material, students’ comprehension of the information will be improved. The main reasons for asking questions are to:

- actively involve students
- increase motivation or interest
- evaluate students’ understanding or preparation
- develop critical thinking
- stimulate independent learning

However, questioning will not achieve these results if you are not developing and using effective techniques. Using Bloom’s Taxonomy as a guide when asking questions, you help students become skilled learners, moving them away from the comfort zone of just memorizing facts into becoming interested in learning the “why”, “how”, “what if”, and “so what” of course material.

Scuba Diving versus Snorkeling

Scuba diving explores the depths, snorkeling explores from the surface. Students tend to snorkel well; that is where many are most comfortable. So, your questioning techniques need to help students “dive deep”.

Your ability to ask effective questions will lead your students into more active discussions, more careful thinking, and deeper learning. They will learn how to think like their professor. As you plan each SI session, develop specific questions you will ask to help students review material. Use the prompts and example questions on the next page to help you prepare.
<table>
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<tr>
<th>Thinking Level</th>
<th>Question Prompts</th>
<th>Example Question</th>
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<tbody>
<tr>
<td>Knowledge</td>
<td>Recall...List...State...Define...Identify...State</td>
<td>“List the steps of mitosis.”</td>
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<tr>
<td>Comprehension</td>
<td>Summarize...Restate...Discuss...Explain What is the main idea of ...?</td>
<td>“Describe the different climates and the characteristics of each.”</td>
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<tr>
<td>Application</td>
<td>Give an example of... Apply this concept to... How could you use ...? Why is ... important?</td>
<td>“Using your understanding of the electoral college, explain the events of the 2008 presidential election.”</td>
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<tr>
<td>Analysis</td>
<td>Compare/contrast... Solve for... Examine the effects of... How does... affect...? How is ... related to ...?</td>
<td>“Given the predator/prey process, determine how to re-populate [a specific wildlife species] in [a designated national park].”</td>
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<tr>
<td>Synthesis</td>
<td>Create a family unit based on... Design a solution for... Develop an argument to counteract...</td>
<td>“Design a solution for fruit farming in California due to the impact of reduced bee colonies from the use of pesticides.”</td>
</tr>
<tr>
<td>Evaluation</td>
<td>Assess the effect of... Judge/Critique the passage of...legislation Justify the use of cloning for... What are the strengths and weaknesses of ...?</td>
<td>“Evaluate the effect of No Child Left Behind policies on special education in Utah.”</td>
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</table>
### Closed & Open-Ended Questions

<table>
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<th>Type of Question</th>
<th>Connection to Bloom’s</th>
<th>Example Questions</th>
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</thead>
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<tr>
<td>Closed-Ended Questions</td>
<td>Appropriate for Knowledge level of learning. Helps you and students confirm their understanding and quickly identify knowledge gaps.</td>
<td>“Is this a homozygous or heterozygous plant?”&lt;br&gt;“What is the definition of reward power?”</td>
</tr>
<tr>
<td>Open-Ended Questions</td>
<td>Appropriate for Comprehension through Evaluation levels of learning. Requires students to “dive deep”: explain, make connections and associations, and develop deeper understanding of concepts.</td>
<td>“Why are diamonds not considered scarce in economic terms?”&lt;br&gt;“When would an aligning action be detrimental?”&lt;br&gt;“What disease would create the bone deformity that you see in this picture?”</td>
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</table>

“**Which one**” questions ask students to collect information and make informed decisions. Example: “Which serious public health issue most deserves research funding from NFS?”

“**How**” questions ask students to understand problems, weigh options from different points of view, and propose solutions. Example: “Propose a solution to a specific environmental problem in Utah. Explain how your proposal will work, and why it is the best option.”

"**What if**" or hypothetical questions ask students to use the knowledge they have to pose a hypothesis and consider options. Example: “What if unique censorship laws were enacted for the internet that are different than print media?”

“**Should**” questions ask students to make a moral or practical decision based on evidence. Example: “Should we discontinue trade with China?”

“**Why**” questions ask students to understand cause and effect, to understand relationships, and to help them get to the essence of an issue. Example: “Why do people abuse children?”
**Wait Time vs Think Time**

The primary objective of SI is to help students process and understand course information. Processing information requires that students engage in multiple cognitive tasks of varying complexity for which they need uninterrupted time to reflect, integrate information, and form a response. This is especially important when asking students to “dive deep”.

In many classrooms students are not allowed sufficient processing time. Teachers often make the mistakes of:
- asking a question and answering it themselves.
- asking one student a question, providing insufficient time, and then posing the same question to another student.
- asking more than one question at a time and confusing students.

Wait time is an instructional tool that can enhance students’ learning experiences. In 1972, Mary Budd Rowe conducted classroom research to assess average wait time used by teachers. The majority of teachers waited less than three seconds after posing a question to their students. Rowe identified that when teachers increase their wait time to three or more seconds, the following benefits were demonstrated:

<table>
<thead>
<tr>
<th>Increased</th>
<th>Decreased</th>
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<tbody>
<tr>
<td>Student</td>
<td>Teacher</td>
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<tr>
<td>length, accuracy, and complexity of responses</td>
<td>variety and flexibility of questioning strategies</td>
</tr>
<tr>
<td>voluntary responses</td>
<td>quality and variety of questions that resulted in higher levels of student thinking</td>
</tr>
<tr>
<td>initiation of discussions</td>
<td>number of questions</td>
</tr>
<tr>
<td>“I don’t know” and no answer responses</td>
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</tbody>
</table>

It is really more accurate to reframe Wait Time as **Think Time**, defined as “uninterruption of silence by teacher and students so both can complete necessary information processing” (Stahl, 1990). The primary purpose for think time is to provide a silent period for students and teachers to complete on-task thinking.

**Types of Think Time silence**

1. **After a teacher asks a question.** Silence follows a clear question that contains adequate cues for students, e.g., “What is the difference between a change on the demand curve and a shift of the entire curve?”
2. **During a student’s response.** The instructor provides sufficient hesitation time before the student continues or completes his/her answer.
3. **After a student responds.** The instructor is silent to allow other students time to consider the response before they comment.
4. **Instructor pause time.** Instructor is silent while considering what his/her next statement or behavior will be.

Think Time is a teaching tool you can immediately implement in your first - and every - SI session!
Redirecting Questions to Students

Learning to redirect questions and pausing sufficiently to get students’ responses takes patience and practice, but the results are well worth your persistence.

If you consistently answer all questions, you create passive learners and the SI model disintegrates into a question and answer session. Students often know more than they give themselves credit for, but they have fallen into the habit of asking questions without attempting to think through and explore for answers. Many instructors fall into the habit of immediately answering questions, instead of helping students discover answers themselves.

Your response to students’ answers is just as important as the original question you asked. Your response can redirect students when they give an incorrect answer or misunderstand the question. You can probe for additional information or explanation when a student has “snorkeled”. It is often quite appropriate to redirect a question to the group for discussion and answers.

Suggested questions or phrases for redirecting questions

- Who can help Joel with that question?
- Where can we find the answer to that question in our notes (textbook)?
- What do you think about that?
- How could you say that in a different way?
- What are we trying to find? What do you need to do next? How did you do that?
- What do you mean by…? Tell us more…
- What other functions do _____ have/do?
- Anything else? Can you be more specific? In what way?
- Tell us the assumptions you are making. What are you assuming?
- Why would that be so? How can that be?
- Are you sure? Take a little bit more time to think that through.
- Help us understand by giving us an example.
- How is that related to…?
- Can you summarize the discussion up to this point?
- How does your response tie into/relate to …?
- If that is true, what would happen if…?
- What would say about that?
- Let's see if we can figure out how to answer that together.
- What's another way to think about …?
- How is your answer (point of view) different from _____?
- How could we phrase that into a question to ask Professor X during next class?
- What do we need to know in order to solve the problem?
- Let's rephrase it on the board and figure out what information we will need to answer your question.
Learning Styles

“Learning Style” refers to the uniqueness of each learner and acknowledges individual differences that affect the learning process. These differences are caused by a complex combination of factors that include the learner’s personality, heredity, cognitive skills, mental processing, confidence, attitude, and sensory intake. Learning styles determine an individual’s preferred manner for acquiring, processing, and using information while learning. Learning styles are evident when observing students’ academic strengths, weaknesses, skills, and interests.

A Case Study

“Consider Mark. His favorite subject is political science, and he enjoys his study of historical movements. When studying for his POLS 1100 exams, Mark analyzes events, trying to determine what is responsible for the various social, political, and historical changes he has been reading about. He understands the importance of names and dates, but they are less significant and interesting to him than the *why* of events and understanding their effects.

Mark is also taking BIO 1010. He studies for his biology exam in the same way he studied for his history test. Unfortunately, he earned an F of his biology exam. Instead of studying facts, committing important terminology to memory, and learning definitions, Mark studies concepts; his *analytical learning style* turned out to be inappropriate for the way his biology course was taught.

The reverse can also be true. Anne has a *factual learning style* that makes her comfortable with memorizing facts. Anne would do very well on that same biology test and yet find the history exam that stressed concepts and analysis of material very difficult.”

No one learning style is better than another, yet it is important to be able to learn effectively regardless of what style is required for a given course. When you are aware of your learning style, you can use your strengths when preparing for classes and develop additional skills to perform well in courses that are not compatible with your learning style. When teachers understand the concept of learning styles, they are able to use appropriate and effective teaching strategies that help students’ develop more positive attitudes towards learning.
Learning Style Models

There are many learning style theories, models, and assessments. One way to think about these various models is through Curry’s (1987) “Onion Model”, consisting of four layers or types of models.

- **Personality Dimensions**: How basic personality affects our preferred approach to learning.
- **Information-Processing**: Preferred intellectual approach to assimilating information.
- **Social Interaction**: Preference for how students and teachers interact in the classroom.
- **Multi-Dimensional/Instructional**: Preferred environment of learning.

All models stress the importance of identifying and addressing individual differences to improve the learning process. However, there are important differences among the models. Some models stress teachers accommodating style preferences through their teaching strategies while other models stress students’ flexibility and adapting their study strategies.
VARK Learning Style

The learning styles model that we use in SI relates to how learners use their various senses to acquire and process information. The model is referred to as VARK, which stands for Visual, Auditory, Read-Write, Kinesthetic learning and teaching strategies. While this model appears simple or “common sense”, it is quite effective in guiding you to plan and prepare your teaching methods/learning activities so that your SI sessions will maximize your students’ comprehension of the course material that you review.

Section 8: Teaching Strategies and Learning Activities provides you with many ideas, all of which are coded to indicate the learning style that the strategy or activity would support. The table below offers suggestions to get you started.

<table>
<thead>
<tr>
<th>Learning Style</th>
<th>Teaching and Learning Tips</th>
</tr>
</thead>
</table>
| **Visual**       | - Use pictures, videos, computer software, textbooks, diagrams, graphs, charts, and tables  
                   - Use color to organize and identify information  
                   - Visualize words and facts to be retained; develop examples, analogies and metaphors  
                   - Practice quizzes, word games                                                                 |
| **Auditory**     | - Use audio clips, videos, Podcasts  
                   - Participate in discussions, group assignments, group problem-solving, debates, study groups, and paired learning activities  
                   - Ask students to provide oral explanations  
                   - Provide oral summaries of information: to self or others  
                   - Ask students to create and ask potential test questions  
                   - Create mnemonics (memory aids)                                                                 |
| **Read-write**   | - Review and discuss notes, textbook, handouts, glossaries, PowerPoint presentations, and supplemental readings  
                   - Rewrite notes; turn diagrams, charts, etc. into organized outlines  
                   - Create lists, flashcards, paragraph summaries, tables, and charts  
                   - Write out practice test questions and answers                                                                 |
| **Kinesthetic**  | - Use physical materials to explain or represent concepts: models, objects, computer programs, “props” to represent abstract concepts, subject-related games and puzzles  
                   - Use a white board to solve problems and to draw diagrams, charts, tables, etc.  
                   - Rehearse, memorize while walking or exercising  
                   - Study by writing (or typing) over and over  
                   - Learn by doing: enact or re-enact with self or others  
                   - Represent abstract concepts or processes with physical materials or action involving students |

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Section 8: Teaching Strategies and Learning Activities
Section Overview

This section provides teaching strategies to help you create student centered, interactive SI Sessions. It is organized in three sections:

1) Learning Readiness Strategies
2) Content Mastery Strategies
3) Summary/Review Strategies

Many more effective teaching strategies can be found on the SI Canvas site.

Many of these teaching strategies can be used at any point during an SI session, as long as they effectively support your learning objectives and help students achieve the necessary level of understanding with the course material.

Graphics in this section will help you evaluate and select appropriate strategies. When planning your sessions, be creative. Don’t be afraid to adapt a strategy to best fit your students, course material, and learning objectives.

### Level of Learning (Bloom’s Taxonomy)

![Activity encourages Knowledge / Memorization level of learning](image)

![Activity encourages Comprehension / Application level of learning](image)

![Activity encourages Analysis / Evaluation level of learning](image)

### Learning Modality/Learning Style

![Effective for Aural and Kinesthetic learning styles](image)

![Effective for multiple learning styles](image)

**Games:** The teaching strategies in this section are not games. However, a learning game may help students review material at knowledge or comprehension levels if used appropriately to support a specific learning objective. Students may react negatively to learning games in an SI session; use them sparingly. For descriptions of learning games used successfully by SI leaders, go to the SI Canvas site.
Learning Readiness
Teaching Strategies
Collecting Concepts

Materials Needed:
Index Cards

Preparation:
Think of a couple of concepts related to your learning objective that can be compared or contrasted with each other. For example, powers of the executive branch vs. judicial branch vs. legislative branch of government.

Procedure:
1. Prepare one index card per student.
2. List a different concept or fact on each card that is related to the topic categories you will be reviewing.
3. Distribute the cards to students and have them move around the room trying to find others with cards related to the same category. (You can either announce the categories initially or have the students discover what they are.)
4. Once the cards have been sorted into different categories by the students, ask each group to present the information to all of the students. Discuss any missing points and clarify any information, as necessary.

Common Questions

Materials Needed:
Index Cards

Preparation:
None

Procedure:
1. Hand each student a blank index card at the beginning of your SI session. Have students move desks so that they are sitting in a circle.
2. Ask each student to write down any content-based question they have related to material covered in lecture.
3. Have students pass their cards to the right. Ask each student to read the new card and put a check mark in the upper right corner if he/she has the same or similar question.
4. Rotate the cards until every student has read every card.
5. Identify which questions have the most check marks and address them throughout the remainder of your SI session. If possible, address all questions but focus on those with the most check marks.
Crossing Terms

Materials Needed:
One copy of each crossword puzzle for each student

Preparation:
Prepare a list of terms and their definitions that relate to your learning objectives and the content you will be reviewing in your session. Create a crossword puzzle using the following Web site:
http://puzzlemaker.discoveryeducation.com/CrissCrossSetupForm.asp

Procedure:
1. Distribute the crossword puzzle to your students as they walk into the session and ask them to complete it using any resources they brought with them (lecture notes, textbook, etc.)

2. After the time limit you have established, review the answers. Ask students to explain each answer.

Informal Quiz

Materials Needed:
One copy of the quiz for each student or a quiz prepared for display electronically

Preparation:
Develop five to ten questions that support the learning objectives for your session. Create lower and higher learning level questions in multiple formats such as multiple choice, short answer and/or true/false. Focus on current lecture material as well as reviewing previous material.

Procedure:
1. Display the quiz using the technology available (e.g., document camera). Announce a time limit for students to complete the quiz.

2. When time is up, ask the students to provide and discuss answers.

3. When students answer a question, ask them to “dive deep” – discuss why the answer is correct and another response is not.

4. Allow students to ask related questions. Break from the quiz when necessary. Create an energetic environment where students are discussing concepts at the learning levels expected by the professor, not just rehearsing facts.
### Practice Makes Perfect

**Materials Needed:**
Index Cards

**Preparation:**
Create questions and answers relating to the content you have planned to review in your session. Each question and answer will be written on separate index cards. Prepare enough questions for 50% of the students that you anticipate will attend the session.

**Example:** If you anticipate 40 students, prepare 20 question cards and 20 answer cards.

**Procedure:**
1. Distribute the cards to students and ask them to move around the room trying to find the question or answer that matches their card. Make sure that all of the cards are distributed so that everyone can find their match.
2. Ask students to sit next to the person who has their matching card.
3. When all of the students have found their partner, ask each team in turn to select another team who will be challenged to answer the opposing team’s question.
4. Discuss all of the questions to ensure accuracy and to clarify confusing points.

### Think-Pair-Share

**Materials Needed:**
None

**Preparation:**
Identify a concept that you want students to discuss in depth or a concept that you know is typically confusing for students. This teaching strategy can be used before or after you review the information.

**Procedure:**
1. Pose a higher level question relating to the concept you select. Provide students one to two minutes to think about the question individually and ask them to write their response on a piece of paper.
2. Pair students with their neighbor to discuss their respective answers. You can create groups of three, if necessary.
3. Call on several groups to share their responses with all of the students in the session.
4. Elaborate, clarify, and/or correct explanations as necessary, either by calling on other students or by doing so yourself.
Concept Mastery
Teaching Strategies
Materials Needed:
One copy for each student

Preparation:
Create a detailed outline for the content you plan to review in your session. Save the completed outline for later reference. Create an incomplete outline for students, which contain only the titles of the major topics or major ideas from your completed outline.

This can be adapted for quantitative courses such as physics or chemistry by creating problems that students need to solve.

Procedure:
1. Distribute a copy of the incomplete outline to each student.
2. Set a time limit, and ask students to complete the outline as much as possible using their lecture notes, textbooks, and other class resources.
3. Students can work individually or in pairs or small groups.
4. After the time limit, review the outline as a class by asking students to volunteer the information they found, adding details and clarifying students' questions.
Jigsaw Learning

Materials Needed:
None

Preparation:
Choose course material that can be divided into specific learning segments. Each segment can be as short or as long as needed, but try to make each segment comparable in terms of time required to review and understand it (e.g., the different phases of World War II).

This learning activity will require at least 30 minutes. You need to carefully plan out each step to ensure students have sufficient time to review material to form their groups.

Procedure:
1. Divide the students into as many study groups as there are learning segments. For example, if the students need to review four phases of WWII, organize the students into four study groups.

2. Assign each study group a specific learning segment. Provide directions to each group that they are to become the “content experts” on their learning segment, and they will be asked to teach their material to other students later in the session. Tell students how much time they have to review the material in their study groups.

3. It is helpful to provide students with the main ideas and key points they should focus on as they review their segment.

4. After each study group completes their review, students form new “teaching groups”.

5. Each “teaching group” contains at least one student from each study group. There should be the same number of “teaching groups” as there were members in the study groups (see diagram on the next page).

6. In the teaching groups, each “content expert” will teach the other students information related to his/her learning segment. Tell students how much time they have to complete this peer teaching task.

7. Bring all of the students together. Summarize the information and provide missing details, as necessary.
Below is a diagram of how the Jigsaw learning strategy works:

Students count off by number of study groups needed (based on how many learning segments you identified).

Each study group reviews and discusses their assigned learning segment. Each student becomes a “content expert” for their segment.

Students reform into teaching groups. There will be as many teaching groups as there were members in the study groups.

Example: 3 study groups (3 learning segments) with 4 students will become 4 teaching groups with 3 members (representing each of the 3 learning segments).
Moving Multiple Choice

Materials Needed:
A, B, C, and D letters (8.5 x 11)
Multiple Choice Questions

Preparation:
Prepare a few multiple choice questions to use. They should be over concepts that the class was having a hard time with or that they will be tested on. The questions could also come from past class quizzes to review.

Activity:
1. Place the letters in four different parts of the classroom.
2. Ask a question from your list to the class, allow time for the students to move around the classroom and stand beneath the letter response they think is correct.
3. Once students have finished moving where they think the answer is, have a discussion by asking students to explain why they chose that answer. After all the groups have had a chance to discuss allow students to move again to their final answer.
4. Now explain which letter was the correct answer that you or the professor were looking for and see if there are any questions about the answer.
5. Continue through the questions on your list in the same manner.
**Stump the Chump**

**Materials Needed:**
None

**Preparation:**
Based on your learning objectives for the session, select a concept or topic that you want students to review in depth. Create questions at various learning levels to ask the students. Ensure that you are well-prepared to answer any type of question regarding the concept or topic.

Create a scoring matrix on the whiteboard.

**Procedure:**
1. Ask students to take five minutes to write the most difficult questions they can think of relating to the topic you chose. One way to do this is to ask them to create the type of questions the professor presents on exams.

2. Ask the students to quickly compare their questions with their neighbors and select the most difficult questions to ask you. If you cannot answer the question, the students have “stumped the chump”, and they get a point. If you can answer their question, you get a point.

3. You then ask students a question from your list. If they get it right, they get a point.

4. Continue to alternate between students asking you questions and you asking students questions. Ensure that all answers are discussed, including where the information was obtained, why the answers are correct, and how each answer relates to other topics or concepts presented in class.

5. Consider having some type of “incentive” for students if they win, such as candy.
Textbook Worm

Materials Needed:
Course textbook or course packet

Preparation:
Prepare questions from textbook material. Note the page numbers where the answers can be found. Your questions can be related to definitions, concepts, and diagrams or charts presented in the chapters.

Create a scoring matrix on the whiteboard.

Procedure:
1. Organize students into several groups.
2. Present a question and provide time for all of the groups to find the answer in the textbook.
3. Tell students that everyone in their group needs to know the answer as you will be calling on students randomly to provide the answers.
4. When students answer correctly, their group earns a point.
5. Continue to work through all of the questions you prepared. Answer or redirect additional questions that students have and add additional key points related to the questions.
The Matrix

Materials Needed:
None

Preparation:
Identify a concept that lends itself to being analyzed through a visual organizer like a matrix. For more information on visual organizers see Section 9: Teaching Study Skills. Complete a matrix that contains all the pertinent information for the topic identified.

Procedure:
1. Each line of the matrix will need a separate group assigned to it. So if your matrix has three main topics (lines) to be analyzed, you should separate into three groups.

2. Have the students study the topic and fill in their matrices in their seats. Tell them how much time they will have to complete this task.

3. Once time is up, fill in the matrix as a class. Have multiple students from each group fill in the matrix, one student per cell, and then have another student who didn’t write anything discuss the answers with the class.

4. Then step in and fill in any gaps that your students may have overlooked.

Example:

<table>
<thead>
<tr>
<th>GROUP 1 Studies:</th>
<th>Powers</th>
<th>Comprised of</th>
<th>Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Executive Branch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP 2 Studies:</td>
<td>Judicial Branch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROUP 3 Studies:</td>
<td>Legislative Branch</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Summary / Review
Teaching Strategies
**Compare and Contrast**

**Materials Needed:**
A copy of an incomplete comparison chart for each student that has been prepared on a piece of 8.5x11 paper.

**Preparation:**
Select two or more concepts or topics to review that are best learned through comparing or contrasting (e.g., theories, biological process, laws, sociological or psychological principles, nutrients, etc.). Prepare an incomplete comparison chart (matrix) that contains only the names of the topics or concepts that will be reviewed during this session. Students will complete the chart in small groups.

**Procedure:**
1. Review the selected concepts or topics during your session, without explicitly drawing connections between them.
2. After the review, organize students into small groups. Set a time limit for them to discuss the similarities and differences of the concepts or topics that were reviewed earlier in the session.
3. Ask students to add the details to their charts, based on what they discussed in their small groups.
4. Select students from each group to present the information that they entered on their charts.
5. Elaborate as necessary to ensure all major similarities or differences have been correctly identified and discussed.

**Correct the Error**

**Materials Needed:**
None

**Preparation:**
Create a test question or problem that contains one or more errors. This can be done by mislabeling one part of a diagram or changing the direction of an arrow in a flow chart. It can also be done by displaying a quantitative problem that contains a computational or conceptual error. This teaching strategy can be used with small groups of students as well as having students work individually to correct the error.

**Procedure:**
1. Display the question for students and ask them to identify and correct the error.
2. Ask the students to explain their correction in as much depth as possible.
3. Follow up by asking a student to summarize the concept or information that has been corrected and discussed.
One Minute Paper

Materials Needed:
None

Preparation:
Develop a question on material that was reviewed in the session and for which you want to assess how well students learned and understood what they need to know. You can also use the One Minute Paper to assess what questions students still have about the material that was reviewed. For example: What do you still find particularly confusing about __________?

Procedure:
1. Ask students to use a blank piece of paper to respond to your question.
2. Provide 1-2 minutes for students to write a response.
3. You can present a question at the end of a session or during a session after a specific concept has been reviewed.
4. Collect the students’ papers.
5. After your session, review students’ responses to evaluate how well they understood the concept in question or to identify questions students still have.
6. Respond to the One Minute Papers when planning your next session.
7. Depending on what students presented in their papers, you may also discuss with your professor the concepts that students identified were difficult or confusing.

Reorder the Steps

Materials Needed:
None

Preparation:
Choose a concept reviewed in the session that involves a process or procedure, such as mitosis; how a bill passes in Congress; solving a chemistry problem.

Procedure:
1. Present the process, procedure, or problem solution in random order.
2. Ask students to correctly sequence the steps. This can be an individual or group effort.
3. Ask students to explain the sequence they chose. It is important to ask students to explain their answers so you can discover areas of confusion and provide additional review and explanation, as necessary.
4. Conclude by asking one student to review out loud the correct sequence.
Select the Best Response

Materials Needed:
A copy of questions for each student or questions presented electronically via document camera or PowerPoint

Preparation:
Prepare several multiple choice questions that require students to select the best answer. Include answers that are correct, but one is the most relevant or appropriate based on the question asked. This teaching strategy helps students develop critical thinking and effective test taking strategies.

Procedure:
1. Ask students to answer each of the multiple choice questions as an individual effort, just as if they were taking a test.

2. When they have completed answering all of the questions, call on students to present and discuss the answers, including why the correct answer is the best response for the question asked.

Example:
When saving your roll for SI at the first of the semester, I should:
A. Save the file to my computer’s hard drive
B. Save the file to my flash drive
C. Keep the original e-mail the roll was sent to me in
D. Save the file to my flash drive and computer’s hard drive

NOTE: Answers, A, B, and D are all correct, but according to instructions in Section 3, D is the most correct response given.
Section 9: Teaching Study Skills

More Idea Sheets can be found on the Academic Resource Center website:
www.usu.edu/arc/idea_sheets
THE PURPOSE OF STUDY GUIDES is to organize lecture notes and textbook material so that you can increase your comprehension and memory of large amounts of information. Preparing study guides that are visual is even more effective, as the visual organization helps you see related concepts and make meaningful connections with the material, thus acquiring the higher levels of learning expected by many of your professors.

STUDY GUIDES AND LEARNING LEVELS

Preparing for tests often involves more than knowing facts, figures, formulas, and definitions. Many professors expect you to demonstrate critical thinking, which involves more than rote memorization. Therefore, you must organize and process course materials so that you can increase your comprehension and ability to think critically.

Examples of Learning Levels

Review the following examples of test questions from a sociology class. The first question only requires that you recall a definition, which you can do well through rote memorization techniques, such as flash cards. The remaining questions require you to make connections or conclusions that may not have been directly presented by your professor or your textbook.

Question 1: A group of relatives by marriage constitutes
   a) a conjugal family
   b) an extended family
   c) a nuclear family
   d) none of the above

Question 2: Describe the similarities and differences of these societal forms: matriarchal, neolocal, and patriarchal societies...

Question 3: Illustrate the economic flow and functions of a neolocal society.

To correctly answer test questions like those in the example, you must create study guides that will help you:

- condense course material into smaller amounts of information that are easier to remember.
- visualize, understand, and demonstrate relationships among concepts and ideas.
- create examples and apply information to "real world" situations.

COMMON TYPES OF STUDY GUIDES

Within this Idea Sheet are examples of common types of study guides or "visual organizers". These study guides can be adapted based on your personal learning style and the information you need to organize. Experiment with these, as well as using other study guide formats that you have found to be effective. Remember, the purpose for study guides is to organize information so that you can demonstrate your knowledge at the critical thinking level your professor expects.
1. Concept map and branching diagram

Many students benefit when information is presented visually. Concept maps and branching diagrams allow you to organize information spatially versus in a linear outline format. However, you still organize information from the general to the specific. You can then add details and examples that help you apply the information. Concept maps and branching diagrams are useful for classes in any subject area.
2. Comparison chart

A comparison chart allows you to organize information visually so that you can see relationships among categories or characteristics. It is a very effective format when you need to be able to understand the differences or similarities among facts, theories, theorists, processes, etc.

HOW TO CREATE A COMPARISON CHART

<table>
<thead>
<tr>
<th>Information you are comparing</th>
<th>Characteristics you are comparing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Transmission</td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
</tr>
<tr>
<td>Hepatitis A</td>
<td></td>
</tr>
</tbody>
</table>

EXAMPLE (from Psychology class)

<table>
<thead>
<tr>
<th>Type of memory</th>
<th>Information stored</th>
<th>Capacity</th>
<th>Duration of info.</th>
<th>Format</th>
</tr>
</thead>
<tbody>
<tr>
<td>sensory</td>
<td>temporary; senses</td>
<td>high</td>
<td>&lt;1 sec. (vision)</td>
<td>literal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>few seconds (hearing)</td>
<td></td>
</tr>
<tr>
<td>short-term</td>
<td>brief, info. currently being used</td>
<td>limited</td>
<td>&lt;20 seconds</td>
<td>auditory &amp; verbal</td>
</tr>
<tr>
<td>long-term</td>
<td>relatively permanent</td>
<td>unlimited (?)</td>
<td>long or perm. (?)</td>
<td>semantic</td>
</tr>
</tbody>
</table>

EXAMPLE (from a Chemistry class)

<table>
<thead>
<tr>
<th>Name of organic compound</th>
<th>Functional group</th>
<th>Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alkane</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>O(\text{C-H})</td>
<td>O(\text{R-C-H})</td>
</tr>
<tr>
<td>3.</td>
<td>C≡C</td>
<td></td>
</tr>
</tbody>
</table>
3. Concept card

Concept cards are "flash cards on steroids", and you create them using index cards that are 3x5 or larger.

On the FRONT OF THE CARD, you write the:
1. key idea or concept you want to learn
2. organizing term or phrase (upper right-hand corner). This is the category or term that allows you to see how your key ideas or concepts are organized.
3. source of the information (textbook page, date of lecture, etc.)

On the BACK OF THE CARD, you write what is most important to know and learn about the concept, in your own words. To ensure you do more than just memorize the information, include examples, summaries, and synthesis of main points as well as definitions. Include diagrams, time lines, or other visuals that will help you understand the information at the level your professor expects.

Example 1: BACK OF CARD

**Gastric Juice**: a digestive fluid that mixes with food and secreted by cells inside stomach

1. hydrochloric acid (concentrated)
2. pepsin (digestive enzyme for proteins)
3. mucus
   * protective coating keeps acid from destroying stomach
   * only released when food is in stomach

**Every 3 days**: stomach lining replaced

Example 2: BACK OF CARD

**Gastric Juice**: a digestive fluid that mixes with food and secreted by cells inside stomach

- [Diagram showing the stomach with labeled parts: hydrochloric acid (concentrated), pepsin (digestive enzyme for proteins), mucus (protects lining from acid; released when food is in stomach)]

**Back**: AC: acid, pepsin, mucus

Example 3: FRONT

**Concept, term, or problem**
4. Diagram

Diagrams allow you to visually represent dynamic information such as a process, procedure, stages, and steps. For example, in a geology class, you could create a diagram to describe how rock layers are formed. In a political science class, a diagram can help you understand and learn the process for how a bill is passed into law.

Example 1: physical geography class

Example 2: note-taking cycle

5. Time Line

A time line allows you to organize information chronologically. You are able to review information that must be understood and remembered in sequence. Time lines would be effective for classes in which you are presented:

- historical developments: history, anthropology, political science, music, art
- biological developments: biology, anatomy, physiology
- human or other developments: psychology, biology, natural resources

Example 1: Development of an embryo

Example 2: Major Civil War Battles 1861-1863
A WIDELY RECOGNIZED SYSTEM OF NOTE TAKING that is commonly taught to university students is the Cornell method, developed by Dr. Walter Pauk, a Cornell University professor. The Cornell system is not really a method of taking or recording notes; it is more a system for organizing your notes into an effective study guide. The Cornell system promotes active learning and critical thinking, providing a method by which you can increase your comprehension of class material. There are five stages involved in the Cornell note taking method.

Stage 1: RECORD

Prepare for this stage by drawing a vertical line about 2 ½ inches from the left edge of your paper. The left column is your recall column, which you leave blank until Stage 2. The right, larger column is where you will record important information from the lecture. You can use an outline or paragraph format. Include diagrams, illustrations, questions/answers provided by the professor during her lecture.

<table>
<thead>
<tr>
<th>recall column</th>
<th>record your lecture notes in the right, larger column</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>PLAyu5dberg is January 24</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
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</tr>
</tbody>
</table>

Stage 2: REDUCE

As soon after class as you can, review and condense your notes. This reduction stage increases your understanding and recall. Reviewing lecture material within 24-48 hours of the lecture can increase how much material you remember by approximately 80%. Another way of looking at this is that if you fail to review within 24-48 hours of the lecture, you will forget approximately 80% of the material. This means that you have to spend additional time relearning the information prior to a test.

Write key words and phrases in the recall column to summarize main points of the lecture. Use as few words as possible. Include questions that help you to clarify unclear ideas or to elaborate on your lecture notes by connecting ideas together. Develop potential test questions that you think the professor could ask you relating to the lecture information. Finally, summarize the lecture in your own words. Summarizing information is another way of reviewing and critically thinking about what you have learned. Preparing summaries in your own words helps you identify what you know and understand, as well as making very obvious the information for which you need additional clarification from professor or study partners.
<table>
<thead>
<tr>
<th>II</th>
<th>Arctic climates: ET &amp; EF</th>
</tr>
</thead>
<tbody>
<tr>
<td>list define E Climates</td>
<td>F: avg. mo. temp. &lt; 50</td>
</tr>
<tr>
<td>Characteristics?</td>
<td>ET: avg. temp. warmest mo. 50°F &amp; &lt; 32°F</td>
</tr>
<tr>
<td>*tundra or continental subarctic</td>
<td>ET: avg. temp. in warmest mo. &lt; 32°F</td>
</tr>
<tr>
<td>*ice cap or arctic</td>
<td></td>
</tr>
<tr>
<td>Define humid dry boundary</td>
<td>III</td>
</tr>
<tr>
<td>How calculated?</td>
<td>A. Marks maj. diff. between humid &amp; dry climate regime</td>
</tr>
<tr>
<td>Example?</td>
<td>B. Must know how boundary calculated</td>
</tr>
</tbody>
</table>

**Summary:** Koppen was a botanist who invented a system of climate classification. He believed that characteristics of climate determined biological activities such as ??????. To classify climates, he developed the climograph, which displays variables of monthly temp. and precip. We are looking at the relationship between potential evaporation and amount of moisture received at a particular geographic location. E-type climates are locations where avg. mo. temps are less than 50°F. Precip. is received, but comes as snow. ET climates are tundra or continental subarctic; warmest mo. — temps of 50–32°F. EF climates are ice cap or arctic; warmest mo. — below 32°F.

**Stage 3: RECITE**

During this stage, you cover your notes and try to say what is in them in your own words. Cover up the right-hand column where you recorded your notes and use the key words and phrases in the recall column to trigger your memory. If you have difficulty recalling the information successfully, do another review of your lecture notes.

**Stage 4: REFLECT**

After reviewing and reciting your notes, give yourself some “wait time.” Then, reread your notes and think about them. Read your text to supplement and clarify your notes. Use your text and lecture notes to discover causes and effects of issues, define terms, and relate concepts. Make generalizations and draw conclusions. Create a brief summary of the entire lecture. This helps you to become a more active, critical thinker.

**Stage 5: REVIEW**

Briefly review your notes several times a week to retain what you have learned. “Distributed review” results in retention of the information, which keeps it fresh and decreases your chances of forgetting what you have learned.

**Sources:**
"I CAN'T REMEMBER WHAT I READ!"

The SQ3R reading system is designed to help you study your textbook and apply reading and note-taking skills. The letters in SQ3R stand for five steps: survey, question, read, recite, and review. These steps will help you gain more from what you read and be better prepared for quizzes and exams. In other words, you will maximize the return on your time investment for reading!

Yes, it takes more time than just reading the words, but have you noticed that just reading the words in your text is a waste of your valuable time. Consider the SQ3R system as an efficient way to ready, study, and create a study guide all in one system! Students who use this system report how much time they actually save because they are studying for the exam as they read!

S = SURVEY
- Read the title of the chapter or the article. Turn these into questions that you expect to be answered. Add question words as why, who, how or what.
- Read the headings and subheadings and turn these into questions.
- Read the introduction and summary to get an overview of the main ideas.
- Read the captions under the visual aids.
- Read any study questions at the end of the chapter or article and use them as goals in your reading.

Q = QUESTION (Question as you survey)
- As you read each of the above parts, ask yourself what is meant by the title, headings, subheadings, and captions. Make good questions about each. Write these down on 3x5 cards or study guide.
- Ask yourself what you already know about the subject?
- Ask yourself what your instructor said about the assignment in the class or what was given out on a handout?
- Ask yourself what you want answered from reading the assignment?
- Ask yourself what you will have to do with the information?

R = READ
- Read and think actively.
- Look for main ideas and supporting details. Use outlining, underlining, and test marking skills.
- Read to answer questions that were raised in the QUESTION step.
- Read carefully all of the underlined, italicized, boldfaced words or phrases.

R = RECITE (Recite immediately after reading an assignment)
- Use good judgment about places to stop and recite.
- Use outlining and underlining skills. (Do not underline long passages. Mark after you have read a passage AND understand it.)
- Write your own summary statement of each section.
- Quiz yourself on the main points.
- Connect new material with what you already know about the subject.
- Write questions on any material you do not understand and ask your instructor to explain it.
- Write the answers to the questions from the QUESTION step.

R = REVIEW (daily, weekly, and before a test)
- Look over your outlines, underline, and any notations you made in your textbook.
- Study briefly the main ideas to keep the information fresh in your mind.
- Make practice test questions from review notes.

Feel free to customize this system to meet your own needs and the needs of a particular class or text. The SQ3R system works particularly well for courses where much of the information for quizzes and exams comes from the text, and you must know and understand a lot of detail.

Try it for two weeks and see if it doesn't improve your reading comprehension and even your enjoyment of a course!
TEST ERRORS ARE USUALLY AN INDICATION OF KNOWLEDGE GAPS or errors in test-taking strategies. Analyzing returned tests can help you understand why you made errors, so that you can adjust your study strategies and review techniques to improve your performance on subsequent tests.

If you do not get your test back, visit your professor. Ask to see your test so that you can determine why you gave incorrect responses. Your professor is an excellent resource for analyzing your returned test. Talk through how you arrived at your answers. Your professor can then point out your knowledge gaps and how you can better prepare for the next exam.

Review tests with your study partner or study group. Determine changes you can make in your review sessions to learn the material more effectively and develop more effective test-taking strategies.

ANALYZING RETURNED MULTIPLE-CHOICE TESTS

1. Read all comments and suggestions from your professor.
2. For each question you missed, verbalize the rationale for the correct answer. Determine why the correct answer was better than your answer.
3. Identify the origin of the test questions. Were they taken from lecture? text? lab?
4. Did you miss a question because you misread it (failed to read it carefully)?
5. What questions represent areas where you had not prepared sufficiently? What prevented you from being prepared? (Not realizing the material would be tested? Not understanding the material so failing to do a thorough review?)
6. Check the level of difficulty of your missed questions. Did they cover precise details straight from lecture or text (which require a lower level of learning, e.g., note memorization)? Did they cover main ideas, concepts, principles (which require a higher level of learning where you can apply, analyze, and evaluate information)?
7. Did you budget your time on each question so that you were able to finish the test within the time given?
8. Did you experience blocking or loss of information because you were anxious?

ANALYZING RETURNED ESSAY EXAMS

1. Read all comments and suggestions so that you understand your professor’s criticisms. If you do not understand his/her comments, or if you believe you gave the correct answer, write out your questions about how the exam was graded. Make an appointment to discuss your questions and gain a better understanding of your professor’s expectations.
2. Determine your knowledge gaps.
   a. Did most of the information your instructor expected in your essay come from the lectures? From the text? From outside readings?
   b. Was there any course content tested which you did not anticipate?
   c. Did you use more detailed information than you had expected?
   d. Did you only memorize facts when the test questions required that you apply, analyze, or synthesize information?
   e. Do you understand what important ideas you misunderstood?
   f. Did you understand what you were expected to do in your response? For example, were you to discuss or explain and you only listed information? Were you to compare or contrast and you only explained? Were you to list and discuss and you failed to include a discussion?
3. Evaluate your test preparation and test-taking strategies.
   a. Did you wait too long to begin preparing for the test?
   b. Did you misread or misunderstand any of the questions?
c. Did you fail to write down something in response to a question, even if you knew or remembered minimal information?
d. Did you fail to organize your ideas before you began to write or fail to proofread?
e. Did you run out of time?

4. Evaluate your anxiety level.
   a. Did you forget ideas and information you studied well?
   b. Did you experience physical symptoms that interfered with your ability to recall information?

AFTER YOU HAVE ANALYZED YOUR TEST

After you have conducted your analysis, determine what corrective action you need to take to improve your performance on your next test. Remember to use all available Utah State University resources: your professor, other classmates, your study partner or study group. If you are in a class for which Supplemental Instruction is provided, attend the sessions regularly. Use free campus tutoring or obtain a private tutor, if necessary.
### Analyzing Rejected Tests

<table>
<thead>
<tr>
<th>Category</th>
<th>Misconceptions</th>
<th>Lack of Test Wisdom</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Test Anxiety</strong></td>
<td>missed</td>
<td>didn't notice feeling words</td>
<td>did not notice feeling words</td>
</tr>
<tr>
<td></td>
<td>did not choose the best answer choice</td>
<td>did not choose the best answer choice</td>
<td>did not choose the best answer choice</td>
</tr>
<tr>
<td></td>
<td>wrote an incomplete answer statement</td>
<td>wrote an incomplete answer statement</td>
<td>wrote an incomplete answer statement</td>
</tr>
<tr>
<td></td>
<td>missed</td>
<td>missed comprehension question</td>
<td>missed comprehension question</td>
</tr>
<tr>
<td></td>
<td>changed a correct answer to a wrong one</td>
<td>changed a correct answer to a wrong one</td>
<td>changed a correct answer to a wrong one</td>
</tr>
<tr>
<td></td>
<td>missed</td>
<td>missed</td>
<td>missed</td>
</tr>
<tr>
<td></td>
<td>missed</td>
<td>missed</td>
<td>missed</td>
</tr>
<tr>
<td></td>
<td>missed</td>
<td>missed</td>
<td>missed</td>
</tr>
</tbody>
</table>

**Directions:**

1. Review the rejected test results in the following table to determine which factors may have contributed to your test results.
2. For each rejected question, note the category and the specific misconception or lack of wisdom that led to the rejection.
3. Consider the strategies you can implement to improve in these areas.
4. Reflect on any other factors that may have influenced your test performance.
Section 10:
Teaching Diverse Learners
Spectrum of Diverse Learners

Utah State University has become home for many students from a multitude of different races, religions, backgrounds, countries, cultures, and academic preparation. As an SI leader, you will need to be sensitive to the types of students you will encounter in your sessions. The types of learners you will encounter in your sessions include but are not limited to the following:

Traditional Students

A traditional university student, according to USU, has completed their high school degree and immediately enrolled at the university. Typically, these students are enrolled as full-time students, and their lives center around their academic and social pursuits at the university.

Non-traditional students

The term “Non-traditional Student” encompasses any student who does not fit the definition of a traditional student. Many of these students have not had any formal schooling in several years. Many of them have families or dependents such as spouses, partners, and/or children. These students return to the university to complete unfinished degrees, fulfill prerequisites for professional or graduate schools, or to simply continue their education. Their expectations and assumptions about university course work may vary from the traditional student because of their previous experiences with academia.

International Students

During the spring 2011 semester at Utah State there was 950 international students enrolled representing 85 different countries. With this type of enrollment, it is likely that your classes will have at least one or more international students. The English language could be a barrier for some of these students. Cultural expectations about education vary greatly from one country to another and adjusting to the demands of university education in the U.S. may be difficult.
Students with Learning Disabilities

Learning disabilities are a general set of disorders that can affect a person's ability in the areas of listening, speaking, reading, writing, and mathematics. People with diagnosed learning disabilities are not “dumb” or “lazy.” In fact most people with diagnosed learning disabilities have average to above average intelligence, but they process information differently than most people. Unlike other disabilities, learning disabilities are “hidden” and are often not apparent until the person is in an educational setting.

There is no one specific sign that shows a person has a learning disability.

Characteristics* that may be apparent include:

- not making use of reading to gather information;
- making many errors when reading aloud, and repeating and pausing often;
- focusing on word recognition to such a degree that it detracts from reading comprehension;
- not understanding what he or she reads;
- showing persistent problems with spelling;
- having sloppy handwriting that is difficult to read or holding a pencil awkwardly;
- struggling to express ideas and communicate in writing;
- having trouble following directions;
- having difficulty with verbal memory and processing large amounts of spoken language;
- not following the social rules of conversation, such as taking turns, and standing too close to the listener;
- not knowing where to begin a task or how to go on from there;
- having problems with abstract reasoning;
- difficulties with socio-emotional skills and behavior;
- a lack of "executive functions," including self-motivation, self-reliance, self-advocacy and goal-setting; or problems with attention, which may be accompanied by hyperactivity, distractibility or passivity.

* - list of characteristics taken from Florida’s Focus on Adults with Learning Disabilities (http://www.floridatechnet.org/bridges/factsandstats.pdf)
Students with Learning Difficulties

*Not all students with learning difficulties have a learning disorder.*

Many students may struggle with reading, writing, math, memory, anxiety, etc. These struggles do not reflect a student’s intelligence, but rather a limited skill-set in academics. Students with learning difficulties or learning disabilities can learn effective self-management, study, and organizational strategies to help them become academically successful.

Physical Disabilities

Physical disabilities impair a person’s motor or sensory abilities. These conditions may be debilitating but in no way reflect the student’s cognitive abilities or intelligence. Examples of physical impairments you may encounter in your SI sessions are

- Low-vision or blindness
- Paraplegia or quadriplegia (limb paralysis)
- Hearing impairments
- Motor impairments (cerebral palsy, Tourette’s syndrome)
- Speech impediments
- Temporary injuries (sports injuries, accident injuries, etc.)
Universal Design for Learning

Adapted from USU ASD project, a project for educating faculty
http://webdev.usu.edu/drc/facultytraining/home.htm

Universal Design for Learning comes from the architectural principle of universal design. Buildings are initially designed initially to accommodate as many people as possible, with or without disabilities, rather than designed and later modified to accommodate people with disabilities.

Universal Design for Learning (UDL) requires that you be sensitive to students’ needs and the learning struggles and difficulties they may face. Instead of making special lessons for individual students who do not fit the traditional student mold, incorporating a few basic principles into your lesson planning and teaching will promote a great learning environment for all students.

These fundamental practices enable faculty to adjust their teaching methods without compromising the academic integrity of their courses.

1. Create a Climate of Openness and Respect
2. Consider the Physical Environment
3. Clearly Define Expectations and Offer Feedback
4. Promote Information Access
5. Use Cooperative Learning Methods
6. Assess Students’ Knowledge Through a Variety of Methods

IMPORTANT: Never lower the academic standards and expectations you have for your students.

1. Create a Climate of Openness and Respect

Some students may be intimidated by you as an SI Leader and more experienced student. Therefore, it is essential to create a climate of openness and respect. This lets students know you are approachable and interested in their success.

- Encourage students to visit with you before and after class, after SI sessions and to contact you by email.
- Identify campus support services so students know where to go for help (e.g. Academic Resource Center, Counseling and Psychological Services, Disability Resource Center, tutoring, etc.).
- Encourage and reinforce questions and comments from all of your students.
2. **Consider the Physical Environment**

The SI Leader may not always have control over the physical environment of his/her classroom. However, it is good to be aware of conditions that may interfere with learning and improve them if possible.

- Encourage students to choose their seats in the room based on lighting, line of sight, and how well they can hear the lecture.
- Be aware of ambient noise and other auditory interference. Take advantage of amplification systems and captioning.
- Regularly ask students if they can hear you and if they can see the presentation.
- If distracting conditions can’t be remedied, request a different room.

3. **Clearly Define Expectations and Offer Feedback**

When you clearly define SI session expectations, it gives students a clear sense of direction. Frequent and timely feedback to students allows them to assess their progress and make adjustments to their study strategies.

- Refer to the professor’s syllabus often
- Consider the alignment between what you teach and what you expect to be on the test.
- Evaluate students’ knowledge during every SI session.
- Build flexibility into SI sessions. Allow for student feedback to guide the direction of your SI session.
4. Promoting Information Access:

*Use Multiple Formats (VARK)*

Provide students with access to information in a variety of formats, including audio, visual, and hands-on (kinesthetic). Multiple formats increase the effectiveness of instruction.

**Audio**
- Repeat questions asked in class so students hear the question clearly before you respond.
- Avoid pronouns such as *this* and *that* when giving instructions or directions. Use specific nouns and verbs to describe what you are teaching. (This will also help English language learners.)
- Read overheads/slides out loud so that students can get the information both visually and auditorily.

**Visual**
- Use a large font size (18 point or larger) for projected presentations so they can be seen more easily. Also, use contrasting colors and simple designs. While black and white print provides contrast, some colors (such as yellow) are better background colors and reduce glare.
- Leave overheads/slides up long enough for students to take notes.
- Use captioned videos whenever possible. Captions help many students including international students, students with hearing impairments, students at the back of the room, and all students when the acoustics and/or audio quality are poor.

**Kinesthetic**
- Use a variety of teaching strategies in addition to lecturing, such as models, simulations, animations, discussion groups, etc.
Use Technology

Computer and other technologies increase information access for many students. Providing digital format also enables students to use assistive devices to access the information.

- Provide digital copies of overheads, lecture outlines, and PowerPoint slides. Many people read more easily if they can enlarge the text, change the font, etc.
- Convert PDF files to text.
- Post SI materials on Canvas as early as possible. This allows students more time to prepare for class or SI sessions.
- Some students must access information through assistive technology such as screen readers or enlarged fonts. When providing information in digital format, be aware that PDF files and graphical representations such as pictures, graphs, charts, and tables may not be accessible with screen readers or Braille displays. When a graphic is central to a concept, provide a written description.
- Be aware that chat rooms are not accessible via screen readers.
- Contact the SI Director or SI Program Assistant for assistance if you have any questions.
- Ask students to let you know privately if they experience any difficulties with the formats you are using to present SI material.

Organization & Planning

Provide organizers to help students prepare for upcoming SI sessions or tests. Students rely on advance information to manage their schedules or to arrange for specific accommodations they may need from the Disability Resource Center, such as interpreters, note takers, Braille, audio, or large print.

- A weekly SI Game Plan that outlines the material to be covered in the next week’s SI session can help students plan and organize their time and arrange for any DRC services they may need.
- Daily class reminders and announcements on the course Canvas site.
- Encourage students to organize study groups.
Facilitating Note-taking

Note-taking is vital in academic coursework. However, note-taking can be problematic for many students, including students with limited manual dexterity, non-native English speakers, etc.

- Providing an SI session outline facilitates organized and clear note-taking.
- Speak slowly enough to allow students to take notes.
- Use contrasting colors for presentation materials, including white boards, slides, etc. Dark colors such as black and dark blue are more visible than light colors.

5. Use Cooperative Learning Methods

Cooperative learning offers students opportunities to master concepts through discussion, application, and exposure to different perspectives. By using small groups, you can build natural supports for learning.

- Consider ways to include students with disabilities.
- Give written as well as verbal instructions.
- Establish rules for speaking in the group; members should speak one at a time and identify themselves.
- If a student is having difficulty, ask the student privately for suggestions on how he/she can be more involved.
- Do not force any student to read aloud, in case there is a student with a reading disability. Always ask for volunteers.

6. Assess Students’ Knowledge Through a Variety of Methods

To the extent possible, use a variety of strategies to assess students’ knowledge such as 1-minute papers, informal quizzes, asking questions, Quick Thinks, etc. The possibilities of doing this depend on considerations of academic integrity, rigor, purpose, practicality, class size, etc.
Summary

UDL allows all students to more easily learn course concepts and information by:

- Removing barriers to the learning process without watering down academic standards
- Providing flexible and customizable delivery of content, worksheets, and activities.

UDL also allows many students with disabilities to access course activities without individual accommodations or with fewer accommodations.

Non-Example

The font is too small, and the color scheme would make this page impossible to read for anyone who is colorblind or color deficient. Printing these slides would waste a lot of ink.

Example

This slide is simple; the font is large enough for most students to read. Printing this slide would not require a large amount of ink. There is not the step by step procedure for solving this problem, but that can be provided as a handout or another slide.