MSJC STEM
Supplemental Instruction (SI)
Spring 2009 – Fall 2010

MSJC STEM Grant Director: Carlos Lopez, M.S.
MSJC SI Coordinator: Janice Levasseur, M.S.
SI Elements:

- **Course Selection**
  - Transfer level STEM courses

- **SI (student) Leader**
  - passed course with an ‘A’ or a ‘B’
  - paid for attending all classes
  - does not re-lecture
  - leads/facilitates discussion
  - shares study strategies
  - viewed as a peer

- **SI (review) Sessions**
  - two one hour sessions per wk
  - planned around students’ and SIL’s schedules
  - group study/participation

- **Participation**
  - attended at least one SI session
  - attendance is voluntary
MSJC STEM SI

Courses -

- 1st year - Initially support: General Biology I/II, General Chemistry I/II, Physics I/II, College Algebra
- 2nd year - Added additional courses: Microbiology, Organic Chemistry I/II, Anatomy & Physiology I/II, Pre-Calculus, Calculus I/II

Coordination

- District Coordinator: Janice Levasseur
- 2 SI Mentors
- multiple STEM SI Leaders

Source: MSJC SI Coordinator - Janice Levasseur, ext 5482
2/11/2011
MSJC STEM SI Data
4 semesters

- **Census enrollment** - 1292 students
  - 792 SI students (61% participation rate)
  - 481 SI students (61%) attended 5+ SI sessions

- **Contact hours**
  - 8299.5 student contact hours with SI Leaders
  - 10.5 hours/SI student
  - 6.5 students/SI session

* note: need to average 3 students/session to be cost effective
District Benefits

- **Higher course grades**
  - 2.83 SI vs. 2.53 non-SI

- **Regulars** perform better
  - 1 – 4 SI hours GPA 2.55
  - 5 – 8 SI hours GPA 2.60
  - 9+ SI hours GPA 3.05

- **Higher success rates**
  - 80% SI vs. 66% non-SI

- **Lower attrition rates***
  - 9% SI vs. 19% non-SI

*“Attrition rates” refers to the withdrawal (“W”) rates

Source: MSJC SI Coordinator – Janice Levasseur, ext 5482
2/11/2011
MSJC STEM Results
Spring ‘09 – Fall ‘10

- SI success 80%
- NonSI success 66%

- Census Enrollment: 1292
- Student Contact: 8299.5 Hours
- SI GPA: 2.83
- Non SI GPA: 2.53
# MSJC STEM SI Sp’09 thru F’10

<table>
<thead>
<tr>
<th></th>
<th>Spring 2009</th>
<th>Fall 2009</th>
<th>Spring 2010</th>
<th>Fall 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td># of sections</td>
<td>6</td>
<td>7</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Census Count</td>
<td>151</td>
<td>225</td>
<td>480</td>
<td>436</td>
</tr>
<tr>
<td># of SI students (%)</td>
<td>63 (42%)</td>
<td>138 (61%)</td>
<td>280 (58%)</td>
<td>311 (71%)</td>
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<tr>
<td>Contact Hours (hrs/SI student)</td>
<td>487.5 (7.7)</td>
<td>1595 (11.6)</td>
<td>2541 (9.1)</td>
<td>3676 (11.8)</td>
</tr>
<tr>
<td>GPA diff (SI-nonSI)</td>
<td>0.04</td>
<td>0.07</td>
<td>0.36</td>
<td>0.58</td>
</tr>
<tr>
<td>SI Success % (SI-nonSI diff)</td>
<td>87% (+5%)</td>
<td>85% (+8%)</td>
<td>78% (+13%)</td>
<td>79% (+29%)</td>
</tr>
<tr>
<td>SI Attrition % (SI-nonSI diff)</td>
<td>5% (-5%)</td>
<td>7% (-9%)</td>
<td>9% (-7%)</td>
<td>10% (-23%)</td>
</tr>
</tbody>
</table>
Key Findings

- **Results for STEM SI**
  - Participation rate among STEM students high (71%)
    - Previous semesters: S’09 (42%), F’09 (61%), and S’10 (58%)
  - Took some time to realize significant outcomes
  - Now firmly established after 4 semesters as an effective form of academic support for STEM classes
    - 80% success rate for SI participants vs. 66% success rate for non-SI participants
    - Sp11 continue the STEM SI offering at the current level under a no-cost extension.
  - Plan to continue SI support for STEM program.

Source: MSJC MVC Math Coordinator - Janice Levasseur
Compiled: MSJC R&P Dept. - XCHAS Ext7073 - 7/5/10
Key Findings cont.

- **Benefits** for STEM SI participants
  - building *connections* to peers in related fields
  - group study natural form of studying
  - fostering support amongst peers during crucial time in education

- **SI challenges:**
  - Labs require (when possible) SI sessions to be held before lecture
  - availability of *SI leaders* – can’t set the SI schedule till they register

Source: MSJC MVC Math Coordinator – Janice Levasseur
Compiled: MSJC R&P Dept. – XCHAS Ext7073 - 7/5/10
Any Questions?