Supporting and Engaging Two-Year College Programs: Exploring the ACS Role

Society Committee on Education
Task Force on Two-Year College Activities

21st Biennial Conference on Chemical Education
August 2, 2010
Two-Year Colleges and ACS

Recent events

• 2008 – reinvigoration of Regional Advisory Boards for the Two-Year College Chemistry Consortium

• 2008 – programming at 20th BCCE
  “Using the ACS Guidelines for Chemistry Programs in Two-Year Colleges to Enhance Programs Facilitate Student Transitions”
  “Exploring the ACS Guidelines and Expectations for the First Two Years of Chemistry”

• 2009 – release of ACS Guidelines for Chemistry in Two-Year College Programs

• 2009 – formation of Society Committee on Education Task Force on Two-Year College Activities

• 2010 – expansion of ACS Office of Two-Year Colleges

• 2010 – collection of data on chemistry faculty at two-year colleges
Symposium Goals

- To gain insights regarding two-year college landscape
- To encourage faculty to use the guidelines and other ACS resources
- To get input on potential ACS plans and activities
Symposium Schedule

Session I
2:00 – 3:25 pm  Leveraging the *ACS Guidelines for Chemistry in Two-Year College Programs* and other ACS resources: How can they be put to good use?
3:25 – 3:40 pm  Break

Session II
3:40 – 4:10 pm  Developing resources to complement the *ACS Guidelines for Chemistry in Two-Year College Programs*: What is in the guidelines and what is missing?

Session III
4:10 – 5:00 pm  Increasing the impact of two-year college programs: What else needs to be done?
Related Symposia and Presentations

Tuesday, August 3

9:00 am – noon  Practices and Policies that Foster Excellence in the First Two Years (Part I)
2:00 – 5:00 pm  Practices and Policies that Foster Excellence in the First Two Years (Part II)

Wednesday, August 4

2:25 – 2:45 pm  ACS chemistry-based technology education: Moving forward with change, Joan M. Sabourin
Leveraging the ACS Guidelines for Chemistry in Two-Year College Programs and other ACS resources: How can they be put to good use?

John V. Clevenger
Professor Emeritus, Truckee Meadows Community College, Reno, NV

Mary T. Berry
Professor, University of South Dakota

Scott J. Donnelly
Professor, Arizona Western College

Susan M. Shih
Professor Emeritus, College of DuPage, IL

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Objectives for Session I

- To determine opportunities for two-year college chemistry students, faculty, and programs
- To develop strategies for pursuing those opportunities
Two-Year College Landscape

~1100 two-year college campuses offer chemistry

• Primarily public
  – 1,024 public
  – 92 private, not-for-profit

• Locations range from urban to rural

• Scope of programs
  – Transfer
  – Terminal degree
  – Support

• Number of chemistry faculty range from 1 – 19

Pursuing Opportunities

What would you like to accomplish in your classroom, laboratory, or program next year?
Leveraging Connections

How might ACS help?

• Who is an ACS member?
• Who is involved their ACS local section?
• Who is involved in ACS divisions?
• Who is a CHED member?
• Who is a 2YC₃ member?
• Whose institution is a 2YC₃ member?
ACS at a Glance – Student Resources

- *inChemistry* magazine
- Undergraduate Programming at National Meetings
- ACS Student Chapters
- Career information and services
- ACS Scholars
- ACS-International Research Experiences for Undergraduates
- Safety brochures and booklets
ACS at a Glance – Faculty Resources

Networking
• National and regional meeting programming
• Two-Year College Chemistry Consortium

Professional Development
• *A Guide to Classroom Instruction for Adjunct Faculty, 2nd Ed.*
• ACS Webinars
• Leadership Development System
• Short courses

Publications
• *Journal of Chemical Education*
ACS at a Glance – Program Resources

• Symposium reports

• ACS Diversity Reports
  – *Workshop on Increasing Participation of Hispanic Undergraduate Students in Chemistry* (2008)
  – *Workshop on Increasing Participation of Native American Undergraduate Students in Chemistry* (2008)

• Survey results

• ACS policy statements

• *Safety in Academic Laboratories*, Volume 2
ACS at a Glance – Program Resources

• ACS Guidelines for Chemistry in Two-Year College Programs
• ACS Guidelines and Evaluation Procedures for Bachelor’s Degree Programs
ACS Guidelines at a Glance

Table of Contents for *ACS Guidelines for Chemistry in Two-Year College Programs*

1. Goals of Guidelines
2. Institutional Environment
3. Faculty and Staff
4. Infrastructure
5. Curriculum
6. Student Research and Scholarly Activities
7. Development of Student Skills
8. Student Mentoring and Advising
9. Program Self-Evaluation and Assessment
10. Partnerships
ACS Guidelines at a Second Glance

**ACS Guidelines for Chemistry in Two-Year College Programs** provide:

- A comprehensive model designed for a range of institutions
- A framework for reviewing two-year college chemistry programs
- Help in identifying areas of strength and opportunities for change
- Opportunity to leverage support from institutions, partners, and external agencies

**ACS Guidelines for Chemistry in Two-Year College Programs** parallel ACS guidelines for baccalaureate programs.
Pursuing Opportunities

What would you like to accomplish in your classroom, laboratory, or program next year?

What professional connections could help?

What aspects of the guidelines might help?

What resources do you need?

What are your next steps?
Developing Strategies: Scenario Analysis

- Scenario – Two chemistry faculty members are retiring from your institution at the end of the coming academic year. Your department chair has asked you to help prepare a request to fill those positions as tenure-track.
- Key players – you, department chair, others?
- Resources – ACS, others?
- Enact meeting
- Analyze interaction
  - What went well?
  - What might you have done differently?
- Next steps?
Developing Strategies: Scenarios

Scenario A – You have been invited to represent your department at a planning meeting regarding the development of online courses and laboratories.

Scenario B – You will be meeting with the dean about a recent program review that highlights the need to increase the contact hours for laboratory sections.

Scenario C – An institution to which your chemistry students transfer has decided to no longer accept credits for courses taken at your institution. The deans and registrars from both institutions will be meeting to discuss this decision. You have been asked to provide a report for that meeting.

Scenario D – The dean has expressed concern about the high DFW rates for general chemistry and will be meeting with the chemistry faculty.
Developing Strategies: Breakout Session

1. Assemble into groups of 4-6 people and introduce yourselves
2. Select a Time-Keeper and a Reporter for your group
   - **Time-Keeper:** Keep group on-task to enact and analyze a scenario in 15 min
   - **Reporter:** Record key points from group discussions
3. Discuss the selected scenario, identifying the key players and resources that could be utilized
4. Select group members to represent the key players and act out the scenario
5. Discuss what went well, what to do differently
6. Identify next steps
7. Turn in the sheet at the end of the session
Developing Strategies: Scenario Analysis

Debrief on breakout session:

- Scenario
- Key players
- Resources
- Interaction
  - What went well?
  - What might you have done differently?
- Next steps
Pursuing Opportunities

What would you like to accomplish in your classroom, laboratory, or program next year?

What professional connections could help?

What aspects of the guidelines might help?

What resources do you need?

What are your next steps?
Leveraging the ACS Guidelines

- ACS Guidelines for Chemistry in Two-Year College Programs
- ACS Guidelines and Evaluation Procedures for Bachelor’s Degree Programs
Leveraging the ACS Guidelines: Breakout Session

1. Assemble into groups of 3-6 people and introduce yourselves
2. Select a Time-Keeper and a Reporter for your group
   
   **Time-Keeper:** Keep group on-task to answer questions in 15 min
   
   **Reporter:** Record key points from group discussions and report on one key point
3. Discuss the selected opportunity and develop strategies for leveraging the guidelines
4. At the end of 15 minutes, the Reporter will share one key point
5. Turn in the sheet at the end of the session
Leveraging the ACS Guidelines: Report from Breakout Groups

Debrief on breakout session:

• What aspects of the guidelines might help in the pursuit of this opportunity?

• With whom would you like to share these aspects of the guidelines? What is their role and how can they help you leverage the guidelines?

• What conversation topics may this person ask you about?

• What questions should you ask this person?
Conclusions

- The two-year college landscape is dynamic, influenced by and responsive to many factors
- Opportunities for two-year college students, faculty, and programs should be pursued strategically
  - Tailor approaches to institutional context
  - Leverage existing connections, resources, and knowledge
  - Plan for the long-term
- Community input is needed to enhance the resources that ACS provides
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Session III
4:10 – 5:00 pm Increasing the impact of two-year college programs: What else needs to be done?
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• To encourage faculty to use the guidelines and other ACS resources
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Developing resources to complement the ACS Guidelines for Chemistry in Two-Year College Programs: What is in the guidelines and what is missing?

Susan M. Shih
Society Committee on Education Task Force on Two-Year College Activities
Professor Emeritus, College of DuPage, IL

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Objectives for Session II

- To take a closer look at the *ACS Guidelines for Chemistry in Two-Year College Programs*
- To identify topics that are missing or need to be covered in more detail
- To discuss strategies for conveying information and making the guidelines more useful
## ACS Guidelines at a Glance

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ACS Guidelines for Chemistry in Two-Year College Programs provide:

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- Help in identifying areas of strength and opportunities for change
- Opportunity to leverage support from institutions, partners, and external agencies

Things to think about:

What would make the guidelines more useful?
ACS Guidelines at a Third Glance

ACS Guidelines for Chemistry in Two-Year College Programs do not include:

- Extensive justifications
- Details
- Examples
- Implementation strategies
- Resources

Things to think about:

In which cases is such information needed?
How should such information be provided?
A Closer Look at the ACS Guidelines

What topics…

• are missing?
• need to be clarified?
• need to be covered in more detail?
Complementary Resources

Strategies for addressing topics that are missing or need to be clarified or covered in more detail

• Supplements
  – topics?

• Clearinghouse
  – topics?

• Workshops/presentations
  – topics?

• Others?
  – topics?
Increasing the impact of two-year college programs: What else needs to be done?

Scott J. Donnelly
Society Committee on Education Task Force on Two-Year College Activities
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Objectives for Session III

• To encourage the pursuit of excellence by two-year college students, faculty, and programs

• To get input on potential ACS plans and activities to inform and demonstrate the development of two-year college programs

• To engage the chemistry community in supporting the development of two-year college programs
Vision of Excellence

The *ACS Guidelines for Chemistry in Two-Year College Programs* are intended to:

- Stimulate faculty, departments, and administrators by providing a vision of excellence in chemistry education for the first two years of college.
- Be used as a resource for self-evaluation and ongoing improvement of chemistry education in the first two years of college.
- Serve as a call for collaborative action for all stakeholders to improve chemistry education in the first two years of college.
Taking Programs to the Next Level

Why strive for excellence?

• Excellent programs support students and benefit society
  – Students strive to become productive members of the workforce.
  – Productive workforce bolsters the local economy and benefits society.

• Success begets success
  – Excellent programs also become models for other programs.
Taking Programs to the Next Level

What will foster the pursuit of excellence?
Taking Programs to the Next Level

Strategies are needed for…

a) obtaining resources to meet student needs
b) fostering continuous development of programs
c) establishing and developing partnerships that benefit students and programs

Key questions

I. What do you do that you wish others knew about?
II. What do other people do that you wish you knew about?
Breakout Session

1. Assemble into groups of 3-4 people and introduce yourselves
2. Select a Time-Keeper and a Reporter for your group
   
   **Time-Keeper:** Keep group on-task to answer questions in 15 min  
   **Reporter:** Record group conclusions and report on one key point

3. Consider the selected category
4. Share a short response to question I
5. Based on your collective experiences, answer question II
6. At the end of 15 minutes, the Reporter will share one key point
7. Turn in the sheet at the end of reporting out
Taking Programs to the Next Level: Report from Breakout Groups

Report *one* key point on strategies for…

a) obtaining resources to meet student needs

b) fostering continuous development of programs

c) establishing and developing partnerships that benefit students and programs
Recognizing Progress

How might ACS recognize and celebrate progress in…

a) obtaining resources to meet student needs?

b) fostering continuous development of programs?

c) establishing and developing partnerships that benefit students and programs?
Moving Forward

Please send additional thoughts to 2YColleges@acs.org

- What will foster the pursuit of excellence?
- What do other people do that you wish you knew about?
- What do you do that you wish others knew about?
- How might ACS recognize and celebrate progress?

Input from the community will inform ACS efforts to support two-year college students, faculty, and programs

- ACS Office of Two-Year Colleges
- Two-Year College Chemistry Consortium
- SOCED Task Force on Two-Year College Activities
Society Committee on Education (SOCED)
Task Force on Two-Year College Activities

**Charge:** To determine the interest in and viability of strategies for engaging and supporting two-year college programs within the broader higher education community.

This could include, but is not limited to, establishing procedures to:

1. Coordinate the preparation, review, dissemination, and updates of supplements for the *ACS Guidelines for Chemistry in Two-Year College Programs*;

2. Assess the use and impact of the Guidelines, review results, and share them with the community;

3. Explore how the guidelines could be made more useful, collecting and disseminating examples of how they are used;

and establishing a framework for ongoing evaluation and improvement, identification and communication of effective practices and critical issues, and recognition of high standards in two-year college programs.
Society Committee on Education (SOCED)
Task Force on Two-Year College Activities

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Thank You

- Society Committee on Education
- Two-Year College Chemistry Consortium
- Division of Chemical Education Committee on Chemistry in the Two Year Colleges
- Office of Two-Year Colleges
- Participants in the symposium
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