ACS Assessment Tool

for Chemistry in Two-Year College Programs

IV. Infrastructure

Scope of assessment tool section

The following is Section IV of the *ACS Assessment Tool for Chemistry in Two-Year College Programs*. The form will guide you through a self-assessment of the following topics:

* Classrooms
* Offices
* Laboratories
* Chemical stockroom and storage facilities
* Chemical safety and waste disposal

Other sections of the tool address other aspects of chemistry-based education. For a more in-depth evaluation of chemistry or chemistry-based technology education at your institution, use the complete *ACS Assessment Tool for Chemistry in Two-Year College Programs*.

***If you intend to submit your work to ACS for feedback***, you must use the complete assessment tool. However, you may include your work on individual sections. Contact the ACS Undergraduate Programs Office (2YColleges@acs.org, 1-800-227-5558, ext. 6108) for more information.

The assessment tool is a resource developed by ACS to facilitate the assessment of chemistry education with respect to the *ACS Guidelines for Chemistry in Two-Year College Programs*. The assessment tool is designed to allow chemistry faculty and administrations to assess the achievements and areas for improvement of the chemistry-based programs and courses at their institution. Developed by two-year college chemistry faculty, it is managed by the ACS Undergraduate Programs Office with input from the Undergraduate Programs Advisory Board and the Assessment Review Panel.

For tips on completing the form and more information on the assessment tool, visit [www.acs.org/2YGuidelines](http://www.acs.org/2YGuidelines) or contact the ACS Undergraduate Programs Office (2YColleges@acs.org, 1-800-227-5558, ext. 6108).

IV. Infrastructure

See Section 4 of the ACS Guidelines for Chemistry in Two-Year College Programs, p. 7-10.

A. Classrooms

**List the classrooms used for chemistry lecture (non-lab) activities.**

[ ]  Additional classroom information is attached.

|  |  |  |  |
| --- | --- | --- | --- |
| ***Classroom*** | ***Seating capacity*** | ***ADA compliant?*** | ***Shared with other disciplines?*** |
| #1 | Click here to enter text. | [ ]  Yes[ ]  No | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #2 | Click here to enter text. | [ ]  Yes[ ]  No | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #3 | Click here to enter text. | [ ]  Yes[ ]  No | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #4 | Click here to enter text. | [ ]  Yes[ ]  No | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #5 | Click here to enter text. | [ ]  Yes[ ]  No | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |

B. Offices

**List the offices used by chemistry faculty.**

[ ]  Additional office information is attached.

|  |  |  |
| --- | --- | --- |
| ***Office*** | ***Number of occupants*** | ***Comment***  |
| #1 | Click here to enter text. | Click here to enter text. |
| #2 | Click here to enter text. | Click here to enter text. |
| #3 | Click here to enter text. | Click here to enter text. |
| #4 | Click here to enter text. | Click here to enter text. |
| #5 | Click here to enter text. | Click here to enter text. |

C. Laboratories

1. **List the rooms used for laboratory activities.**

[ ]  Additional information is attached.

| ***Laboratory*** | ***Square footage*** | ***Student capacity*** | ***Number of***  | ***ADA compliant?*** |
| --- | --- | --- | --- | --- |
| #1 | Click here to enter text. | Click here to enter text. | Fume hoods: Click here to enter text.Safety showers: Click here to enter text.Eye washes: Click here to enter text.Fire extinguishers: Click here to enter text. | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #2 | Click here to enter text. | Click here to enter text. | Fume hoods: Click here to enter text.Safety showers: Click here to enter text.Eye washes: Click here to enter text.Fire extinguishers: Click here to enter text. | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #3 | Click here to enter text. | Click here to enter text. | Fume hoods: Click here to enter text.Safety showers: Click here to enter text.Eye washes: Click here to enter text.Fire extinguishers: Click here to enter text. | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #4 | Click here to enter text. | Click here to enter text. | Fume hoods: Click here to enter text.Safety showers: Click here to enter text.Eye washes: Click here to enter text.Fire extinguishers: Click here to enter text. | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |
| #5 | Click here to enter text. | Click here to enter text. | Fume hoods: Click here to enter text.Safety showers: Click here to enter text.Eye washes: Click here to enter text.Fire extinguishers: Click here to enter text. | [ ]  Yes[ ]  No |
| ***Comments:*** Click here to enter text. |

1. **Is there a first aid kit convenient to each lab?**

[ ]  Yes

[ ]  No

1. **Do the labs comply with all federal and state regulations for safety and accommodation? (yes or no)**

[ ]  Yes

[ ]  No.

**If no, then describe efforts to improve compliance with federal and state regulations.**

Click here to enter text.

1. **Indicate which of the following instrumentation is available to students, either onsite or at another convenient location. (Check all that apply.)**

[ ]  Infrared spectrometer (IR)

[ ]  Fourier transform infrared spectrometer (FT-IR)

[ ]  Nuclear magnetic resonance spectrometer (NMR)

[ ]  Fourier transform nuclear magnetic resonance spectrometer (FT-NMR)

[ ]  UV-Vis spectrometer

[ ]  Gas chromatograph

[ ]  Mass spectrometer

[ ]  Melting point apparatus

[ ]  Centrifuge

[ ]  pH meter

[ ]  Top-loading balance

[ ]  Analytical balance

[ ]  High-performance liquid chromatograph (HPLC)

[ ]  Ion chromatograph

[ ]  Other (specify): Click here to enter text.)

1. **Indicate which of the following equipment students have adequate access to. (Check all that apply.)**

[ ]  Volumetric glassware

[ ]  Thermometers

[ ]  Hot plates

[ ]  Bunsen burners

[ ]  Filtration equipment

[ ]  Microscale or full scale organic kits

[ ]  Software for data acquisition and analysis

1. **Provide any additional information about access to equipment.**

Click here to enter text.

D. Chemical stockroom and storage facilities

1. **List the rooms used for chemical stockroom.**

[ ]  Additional information is attached.

|  |  |  |
| --- | --- | --- |
| ***Stockroom #1*** |  |  |
| Does stockroom conform to government standards and regulations? | [ ]  Yes[ ]  No | If no, describe efforts to improve compliance with federal and state regulations.Click here to enter text. |
| Is the stockroom located in the vicinity of the laboratories? | [ ]  Yes[ ]  No | If no, describe efforts to ensure safe distribution of the chemicals to the laboratories.Click here to enter text. |
| Does the stockroom provide safe chemical storage area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |
| Does the stockroom provide safe chemical handling area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |
| Does the stockroom provide safe chemical preparation area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |
| ***Stockroom #2*** |  |  |
| Does the stockroom conform to government standards and regulations? | [ ]  Yes[ ]  No | If no, describe efforts to improve compliance with federal and state regulations.Click here to enter text. |
| Is the stockroom located in the vicinity of the laboratories? | [ ]  Yes[ ]  No | If no, describe efforts to ensure safe distribution of the chemicals to the laboratories.Click here to enter text. |
| Does the stockroom provide safe chemical storage area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |
| Does the stockroom provide safe chemical handling area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |
| Does the stockroom provide safe chemical preparation area(s)? | [ ]  Yes[ ]  No | Comments :Click here to enter text. |

1. **Are chemicals stored in accordance with federal, state, and local standards and regulations?**

[ ]  Yes

[ ]  Yes, with the following exceptions: Click here to enter text.

[ ]  No

Describe efforts to improve compliance with federal, state, and local standards and regulations, if needed.

Click here to enter text.

1. **Are segregated areas provided for acids and bases?**

[ ]  Yes

[ ]  No

[ ]  N/A

1. **Are segregated areas provided for reducing and oxidizing agents?**

[ ]  Yes

[ ]  No

[ ]  N/A

1. **Are segregated areas provided for particularly hazardous substances?**

[ ]  Yes

[ ]  No

[ ]  N/A

1. **Do cabinets and refrigerators that store flammable materials meet the federal and state Occupational Safety and Health Administration (OSHA) regulations?**

[ ]  Yes

[ ]  No

[ ]  N/A

1. **Are National Fire Protection Association (NFPA) labeling codes used on all reagents and storage facilities?**

[ ]  Yes

[ ]  No

[ ]  N/A

Provide any additional comments on the chemical stockroom and storage facilities.

 Click here to enter text.

E. Chemical safety and waste disposal

1. **Does the campus, division, department, or program have a written chemical hygiene plan?**

[ ]  Yes

[ ]  No
[ ]  N/A

Describe efforts to develop or update the chemical hygiene plan, if needed.

Click here to enter text.

1. **Is hazardous waste managed in accordance with federal, state, and local standards and regulations? (Note: this may be addressed in the chemical hygiene plan.)**

[ ]  Yes

[ ]  Yes, with the following exceptions: Click here to enter text.
[ ]  No

Describe efforts to improve compliance with federal, state, and local regulations standards and regulations, if needed.

Click here to enter text.

1. **Is there a policy of maximum stockroom chemical holdings, including small quantities for especially hazardous materials? (Note: this may be addressed in the chemical hygiene plan.)**

[ ]  Yes

[ ]  No
[ ]  N/A

1. **Is safety information and reference materials, such as material safety data sheets (MSDSs), readily available to all faculty and students?**

[ ]  Yes, available to faculty

[ ]  Yes, available to students
[ ]  Yes, with the following exceptions: Click here to enter text.
[ ]  No

1. **Is personal protective equipment, such as goggles, gloves, and other appropriate equipment readily available to all faculty and students?**

[ ]  Yes, available to faculty

[ ]  Yes, available to students
[ ]  Yes, with the following exceptions: Click here to enter text.
[ ]  No

Provide any additional comments on the safety resources available for chemistry faculty and students.

 Click here to enter text.

Provide any additional comments on the infrastructure used for chemistry education.

 Click here to enter text.