Human Rights in STEM Education

At a time when many educators say their students crave new ways to apply what they learn in class to global challenges, a growing number of STEM educators are finding that integrating human rights into their teaching sparks their students’ interest in applying research theories and methods, engages them in research on issues of relevance to their community or society more broadly, and gives practical context to scholarly debates around ethical responsibilities, and the roles of stakeholders.

Can a broader adoption of these experimental approaches improve STEM education, including learning outcomes, retention, and diversity? What resources can be drawn from the human rights education movement’s practices and pedagogies? What are the opportunities for collaboration across disciplines to strengthen these efforts? Meeting participants will learn from case examples and contribute to discussions aimed at identifying key challenges, considering potential models for integrating human rights into STEM education, and articulating needs and opportunities for mentoring and other types of support.

Coalition meetings convene scientists, engineers, and health professionals with human rights leaders and policy makers to discuss emerging issues at the nexus of science and human rights. The Coalition serves as a catalyst for the increased involvement of scientific, engineering, and health associations and their members in human rights-related activities.
Thursday, January 25

8:30 a.m.  Registration and Breakfast

9:00 a.m.  Welcoming Remarks (Auditorium)

Introduction:  Jessica Wyndham, AAAS, Scientific Responsibility, Human Rights and Law Program

Speaker:  Rush Holt, AAAS CEO and Executive Publisher of the Science Family of Journals

9:15 a.m.  Keynote Address (Auditorium)

Introduction:  Quincy Brown, AAAS Education and Human Resources

Speaker:  Juan Gilbert, University of Florida

10:00 a.m.  Break

10:30 a.m.  Plenary Session I: Encouraging Evidence-Based Policies and Practices to Support Human Rights in STEM Education (Auditorium)

What are key challenges in STEM education, including learning outcomes, retention and diversity? How are these same challenges being addressed by human rights educators? What current approaches are being developed and tested in both fields to address these challenges? What has been learned from the evaluation of these approaches?

Panelists:  Myles G. Boylan, National Science Foundation
           Glenn Mitoma, University of Connecticut
           Eliza Reilly, National Center for Science & Civic Engagement
           Sara Tolbert, University of Arizona

Moderator:  Lori Diane Hill, American Educational Research Association

12:00 p.m.  Lunch

12:30 p.m.  Concurrent Workshops (please bring your lunch!)

1.  SENCER-izing Your Curriculum (Abelson-Haskins)

SENCER (Science Education for New Civic Engagements and Responsibilities) is the premier activity of the National Center for Science and Civic Engagement, which is a member of the Coalition. This workshop will start with 10 minutes of background and an overview, then proceed to the activity of creating a SENCER-ized course. Participants will be assigned to a small group that will utilize the principles behind SENCER (the SENCER Ideals) and evidence based approaches (How People Learn) to create an integrated science or engineering course with strong social context. Together we will address issues of motivation, civic engagements, content and process and the role of both the scientist and social scientist in creating a course of relevance and impact in student learning.

Facilitator:  Eliza Reilly, National Center for Science & Civic Engagement
2. Using the Coalition’s Resources to Bring Science and Human Rights to Your Campus (Revelle)

The Coalition’s working groups have produced a number of resources including an annotated bibliography of science and human rights, guidelines for scientists working on human rights projects, examples of collaborations between scientists and human rights organizations, a primer on scientific freedom and human rights, and more. In this workshop, participants will learn about these resources, how to access them, and how they have been used by scientific associations, educators, and students. Participants will then share ideas and identify new opportunities to use these resources at their own colleges and universities.

Facilitator: Theresa Harris, AAAS

1:45 p.m. Break

2:00 p.m. Plenary Session II: Examples of Human Rights in STEM Education (Auditorium)

How are STEM educators integrating human rights, social justice and civic engagement into their curricula? What are their goals in adopting this approach, considering both learning outcomes and substantive understanding of human rights? What have been the outcomes of these approaches? What are the existing tools for measuring impact?

Panelists: Michel DeGraff, Massachusetts Institute of Technology
James Griffith, George Washington University
Diane Husic, Moravian College
Joseph Watkins, University of Arizona

Moderator: Janet Stocks, Council on Undergraduate Research

3:15 p.m. Break

3:30 p.m. Small Group Discussions

Building on the plenary discussions, each group will identify strategic actions Coalition members and their partners can take to help inform their networks and advance human rights in STEM education.

Choose one of the following discussion groups:

- **Key challenges in STEM education** (Haskins)
  This group’s task is to come up with an itemized, prioritized list of challenges in STEM education that could be addressed through the integration of human rights in STEM curricula.
  Facilitator: William Lenart, Case Western Reserve University Science and Human Rights Coalition

- **Models for integrating human rights into STEM education** (Revelle)
  This group’s task is to articulate creative options for how human rights could be integrated into STEM curricula.
  Facilitator: Claudia Concha, Human Rights Education USA

- **Mentoring junior faculty – opportunities and best practices** (Abelson)
  This group’s task is to articulate best practices in mentoring junior faculty with regard to teaching practices, and to identify opportunities created by the Coalition to provide mentoring support.
  Facilitator: Ali Arab, American Statistical Association

4:30 p.m. Break
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<tr>
<td>4:45 p.m.</td>
<td>Report Back from Small Group Discussions</td>
<td>Auditorium</td>
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<td>5:15 p.m.</td>
<td>Closing Remarks</td>
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<td>5:30 p.m.</td>
<td>Reception</td>
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<td>7:00 p.m.</td>
<td>Meeting Adjourns for the Day</td>
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In keeping with the Coalition's commitment to action and measurable outcomes, Coalition members and affiliates contribute to projects that connect networks, build capacity, engage individuals, and promote awareness. The working meetings provide an opportunity for members to define new projects and move forward with existing initiatives. Unless otherwise noted, all are welcome to attend these working meetings, which will be conducted according to the Chatham House Rule regarding attribution.

If you are a member of the Executive Directors’ Circle, please see the security desk upon your arrival to pick up a security badge. A badge is necessary to access the 12th floor.

8:30 a.m.  Breakfast
8:30 a.m.  Executive Directors’ Circle (invitation only) (12th Floor Boardroom)
         Chair:  Rush Holt, AAAS
9:00 a.m.  Student Meeting (Revelle)
         This session will provide an opportunity for students to meet each other and to discuss the Coalition’s student engagement projects. Currently, these projects include the student essay and digital media competitions and developing a step-by-step guide for launching campus groups focused on science and human rights.
         Facilitators:  Lucas Hackl, American Physical Society
                      William Lenart, Case Western Reserve University Science and Human Rights Coalition
10:00 a.m. Break
10:30 a.m. Breakout Discussions (concurrent)
         • Human Rights in STEM Education: Next Steps (Haskins)
             Building on the meeting theme of ‘Human Rights in STEM Education’, participants are asked to give their feedback on a draft collaborative proposal for integrating human rights into STEM education at the undergraduate and graduate levels. The proposal is intended to build on strengths created by existing activities and expertise within the Coalition member organizations, and other additional opportunities of which Coalition members are aware. Input from this session will be discussed by the Coalition Council as part of their review of the project proposal.
             Facilitator:  Jessica Wyndham, AAAS
         • Coalition 10th Anniversary Plans (Abelson)
             January 2019 marks the 10th anniversary of the launch of the AAAS Science and Human Rights Coalition. Coalition members are asked for their suggestions for how to appropriately mark the anniversary. Participants are encouraged to think creatively. At this stage, no idea is too big, too small, or too ‘blue sky’. Input from this session will be brought to the Coalition Council meeting.
             Facilitator:  John Dale, Society for the Study of Social Problems
         • Coalition Awards Program (Revelle)
             Throughout the Coalition’s history, several members have suggested that the Coalition develop a way to formally recognize achievements consistent with its mission. This group
will explore possibilities for one or more honorary awards to be given by the Coalition in
furtherance of its goals, and to develop recommendations to the Council.
Facilitator: Theresa Harris, AAAS

- **Project Team Meeting: Program Evaluation Webinars for Human Rights Groups**
  *(Room 207)*
  This project team is developing a series of workshops/webinars intended to provide
  information of use to human rights organizations in designing and executing systematic
  evaluations of their programs and projects.
  Team Leader: Oliver Moles, Capital Area Social Psychological Association

11:45 a.m. **Plenary Discussion: Reports from Breakout Groups** *(Abelson-Haskins)*

During this session, each breakout group will share the outcomes of their discussions and
recommendations for next steps.

12:30 p.m. **Council Lunch** *(Council Members and Student Delegates only)* *(Abelson-Haskins)*

1:00 p.m. **Council Meeting** *(Council Members only)* *(Revelle)*

5:00 p.m. **Meeting Adjourns**