

Virtual Resources

In light of the need for some faculty to immediately alter the way they deliver content due to the COVID-19 situation happening globally, Beyond Benign and the Green Chemistry Community has put together this list of virtual resources.

If you have suggestions for additional listings that might aid other chemistry instructors, please feel free to email Natalie O'Neil at Natalie_Oneil@beyondbenign.org and she will update this list. Please include a short description of the resource you wish to share.

[A guide to using the Greener Alternatives Evaluation Matrix \(DOZN™ 2.0\) in Academic Settings for Safer Labs](#)

An overview of DOZN™ 2.0, specific rules for utilizing the tool in academic settings, a template worksheet for students, and select reactions with DOZN™ 2.0 scoring to serve as introductory examples. [DOZN™ 2.0 webinars](#)

[American Chemical Society Green Chemistry Institute](#)

Online education resources for Green Chemistry & Engineering

[Yale-UNIDO University Curriculum](#)

27 lecture PowerPoints presentations

Supplementary reading and video recommendations

[Curriculum Overview Webinar](#)

[Beyond Benign Green Chemistry Webinar Archive](#)

31 webinars covering Analytical, Organic, General and Green Chemistry along with Toxicology and Green Chemistry metrics

[Carnegie Mellon University Institute for Green Science](#)

Green Chemistry modules available for download

Powerpoint presentations, hand-outs available

[CHEM21 Online Learning Platform](#)

Solvents, reagent guides, metrics and more

Self-assessment questions throughout modules

[Green Chemistry Teaching Modules by Mike Cann, University of Scranton](#)

Green Chemistry teaching modules for General, Organic, Inorganic, Environmental, Polymer, Advanced Organic and Industrial Chemistry, Biochemistry as well as Chemical Toxicology.

[Green Chemistry videos by MoDRN](#)

Lecture videos on toxicology, solvents, energy, feedstocks, catalysis, end of life, accidents and design of safer chemicals, from Professor Paul T. Anastas and MoDRN team.

[Green Chemistry Educational videos by The Global Green Chemistry Initiative](#)

~2 min videos on Green Chemistry, feedstocks, solvents, catalysts, safer molecules, waste, energy

[Green Tycoon: A Mobile Application Game to Introduce Biorefining Principles in Green Chemistry](#)

Green Tycoon is a free-of-charge game-based mobile application that embraces a systems thinking approach to introducing students to a biorefining process model within green chemistry.

[Apple App](#)

[Google Play App](#)

[MoDRN: U Modules](#)

A set of modules for undergraduate Chemistry, Biology, and Environmental Science classrooms (and beyond!) to introduce concepts of Green Chemistry and sustainable chemical design.

[The Science of Chemical Safety Essential Toxicology An Educational Resource](#)

Materials for teaching and learning the fundamentals of Toxicology

[The Global Green Chemistry Initiative 1-day Train the Facilitator Workshop Resources](#)

PowerPoint lectures, exercises and case studies

[The Global Green Chemistry Initiative 5-day Train the Facilitator Workshop Resources](#)

PowerPoint lectures, exercises and case studies

[Safer Chemical Design Game](#)

Virtual game for greener chemical synthesis

[The safer chemical design game. Gamification of green chemistry and safer chemical design concepts for high school and undergraduate students article](#)

[Sustainable Development Goals \(SDGs\) Academy](#)

Free massive open online courses and educational materials on sustainable development and the Sustainable Development Goals.

Subject Specific Additional Resources

[Online Resources for Organic Chemistry from the OrganicERs leadership board](#)

Organic Chemistry Educational Resources (OrganicERs) faculty learning community

[Online Resources for Inorganic Chemistry from the VIPER BITeS](#)

Virtual inorganic pedagogical electronic resource (VIPeR): A Community for Teachers and Students of Inorganic Chemistry