36th Annual ESATYCB CONFERENCE

Looking forward: Biology Education in the Future
April 17th, 18th, 19th 2020

DUTCHESS COMMUNITY COLLEGE
Poughkeepsie, NY 12601.

With generous support from: Dutchess Community College, DCC Foundation, AHBS Department of DCC, e-Science, HHMI International and Ward Science

Questions, please email: ESATYCB2020CONF@SUNYDUTCHESS.EDU
Looking Forward: Biology Education in the Future

Friday, April 17th
1.30-4.30PM  Volunteer at the Farm Stand, Trolley Barn, 489 Main Street, Poughkeepsie
5.00-7.00PM  Registration, Cocktails, Dinner (Location: Grand Hotel, Poughkeepsie)
7.00-8:30PM  Featured Presentation: Advanced Radiation Modalities and the growth of Particle Radiation - Dr. Shannon MacDonald (Harvard Medical School)

Saturday, April 18th
7.00-8.30AM  Registration & Breakfast
8.30-9.00AM  Welcome speeches
9.00-9.50AM  OER Panel Discussion – Michael Daly (SUNY OER Services) & Terri Burke (Dutchess Community College)
10.00-10.50AM URE (Undergraduate Research Experience) Panel Discussion – Dr. Bruce Nash (DNA Learning Center) Katherine Espinosa & others (Dutchess Community College)
11.00-11.50noon Workshops
  1. Integrating Exercise & Biology - Nancy Perretta & Carolyn Rounds (Dutchess Community College)
  2. Interactive media - Javier Robalino (HHMI BioInteractive)
  3. OER textbook Workshop A - Michael Daly (SUNY OER Services) & Terri Burke (Dutchess Community College)
12.00-1.00PM  Lunch
1.00-1.50PM  Use of art in Biology Education – Lindsey Guile and Carolyn Rounds (Dutchess Community College)
2.00-2.50PM  Workshops
  1. DNA barcoding CUREs (Course based Undergraduate Research Experiences) Workshop – Dr. Bruce Nash (DNA Learning center)
  2. Interactive media - Javier Robalino (HHMI BioInteractive)
  3. OER textbook Workshop B - Michael Daly (SUNY OER Services) & Josh Baron (Lumen Learning)
3.00-3.50PM Workshops
1. Animations, Videos, & Interactives to enrich both traditional & online classes - Dr. Walter Jahn (SUNY Orange)
2. DNA barcoding CUREs (Course based Undergraduate Research Experiences) Workshop – Dr. Bruce Nash (DNA Learning center)
3. Clinical scenario simulations using Virtual Reality Glasses – Steven Weigand (Dutchess Community College)

4.00-4.50PM Workshops
1. Animations, Videos, & Interactives to enrich both traditional & online classes - Dr. Walter Jahn (SUNY Orange)
2. Integrating Exercise & Biology - Nancy Perretta & Carolyn Rounds (Dutchess Community College)
3. Clinical scenario simulations using Virtual Reality Glasses – Steven Weigand (Dutchess Community College)

5.00-6.00PM Business meeting

6.00-7.15PM Dinner

7.15-8.30PM Fermentation Science Update: Panel Discussion - featuring
Sake brewing - John Fischer (Culinary Institute of America, NY)
Wine fermenting – John Graziano (Millbrook Winery)
Beer brewing – Randall Marquis (Blue Collar Brewery)

Sunday, April 19th
6.00-7.30AM Early morning awakening Yoga - Debbie VanBuren (Dutchess Community College)

6.00-8.00AM Traditional Bird Watch - Erich Markert (Dutchess Community College)

7.30-9.00AM Breakfast

9.00-11.00AM Featured presentation: Applied Biology: Careers in Plant and Animal Sciences - Rebecca Cossa (Dutchess BOCES)

11.00-11.30AM Closing remarks

11.30AM Farewell with packed lunch
Presentation/presenter information

**Featured Presentation (Friday) Advanced Radiation Modalities and the growth of Particle Radiation**  
Shannon MacDonald MD, Massachusetts General Hospital, Associate Professor Harvard Medical School.  
Overview of the use of radiation for cancer treatments and recent developments in technology involving the use of proton therapy. This session will review radiation modalities, discuss modern available treatments and discuss limitations of cost and cost effectiveness if new modalities.

**Featured presentation (Sunday) Applied Biology: Careers in Plant and Animal Sciences**  
Rebecca Cossa, Agriculture Teacher, Dutchess BOCES.  
Coming from over 20 years of agriculture-related experience, Rebecca Cossa is a New York State certified Agriculture Teacher and FFA Advisor. She taught in one of the nation's largest high school agriculture programs, located in New York City, for 5 years before accepting her current position at Dutchess BOCES. For the past 3 years, Rebecca has been developing the agriculture program to facilitate high school juniors and seniors to grow as dedicated and independent workers, local and global community leaders, and well-rounded individuals. Recently she has been honored with grants and recognition by the New York State FFA, regional Farm Bureau, and community media for the work she is doing at Dutchess BOCES.

**Animations, Videos, & Interactives to enrich both traditional & online classes workshop**  
Walter Jahn, Professor of Biology, SUNY Orange.  
Dr. Jahn's journey through education includes being a Peace Corps volunteer in Paraguay, a scoutmaster, and a professor at Orange County Community College for more than 20 years where he teaches Anatomy & Physiology, General Biology, Genetics, Comparative Vertebrate Anatomy, Prehistoric Life, and Environmental Topics.

**Clinical scenario simulations using Virtual Reality Glasses**  
Steven Weigand, EMS Lab coordinator, Dutchess Community College  
This workshop will show a new and innovative way of practicing medical simulation using a holographic simulator. This simulator was recently purchased for the DCC EMS Program in the fall of 2019, to aid in training Paramedic students. The simulator allows students the ability to visualize sick, life-like patients, and practice treating them in a safe environment.

**DNA barcoding CUREs Workshop**  
Bruce Nash, Assistant Director for Science, DNA Learning Center.  
Over the past ten years, Dr. Nash has helped develop and optimize the DNALC’s DNA barcoding and metabarcoding CUREs to support student learning and engagement through authentic research. He has also trained hundreds of high school and post-secondary faculty to implement DNA barcoding with their students, and manages Lounsbery, NSF and NIH funded programs enabling DNA barcoding and metabarcoding student research.

**Early morning awakening Yoga**  
Debbie VanBuren M.S., M.P.S. Associate Professor of Wellness and Fitness, Dutchess Community College.  
Join us for an early morning awakening through the practice of deep breathing and gentle stretches designed to calm and bring a fresh perspective to the day. This mindful movement practice will enable you to feel grounded and centered. Beginners and all levels are welcome; please dress in comfortable clothing. Guided by Debbie VanBuren, certified in group exercise, personal training, Pilates, Yoga, therapeutic Yoga and prenatal Yoga.
Integrating Exercise & Biology
Nancy Perretta, Instructor of Exercise Science and Wellness & Carolyn Rounds, Assistant Professor of Biology, Dutchess Community College.

In this workshop, participants will use gym equipment to demonstrate biology topics relating to muscle activity and cellular respiration. Activities will focus on utilizing portable biology equipment that will bring the lab to the gym. Sample exercises will be reviewed during this workshop, and participants will be encouraged to brainstorm ideas for how they might apply additional topics to bridge the gap between exercise and biology.

Interactive media
Javier Robalino, Program Officer, HHMI BioInteractive.

Javier works on educational outreach and faculty development. Javier’s main area of responsibility include the design and facilitation of professional learning experiences focused on evidence-based instructional practices for college classrooms. Javier also oversees BioInteractive’s Spanish-language initiative, which generates and disseminates educational resources to support bilingual instruction in the US, as well as biology education in Puerto Rico and Mexico.

Javier earned his master’s degree in marine, estuarine, and environmental sciences from the University of Maryland, and his PhD in cell and molecular biology from the Medical University of South Carolina. His past research focused on the molecular mechanisms and evolution of antiviral defense in arthropods. Before joining HHMI, he did postdoctoral research at the University of Maryland and Stony Brook University, while pursuing his passion for science education as a lecturer at Northern Virginia Community College.

OER Panel Discussion: SUNY, Open Educational Resources & You
Michael V. Daly, Director of Operations, SUNY OER Services & Terri Burke, Instructor of Biology, Dutchess Community College.

Since 2017 thousands of SUNY faculty have saved students millions of dollars by choosing to use open educational resources (OER). With support from SUNY OER Services faculty are able to find, evaluate, and use high-quality learning resources that reduce the high cost of traditional textbooks. Using OER also provides all students with day-one access to course materials and allow faculty the (legal) freedom and flexibility to tailor OER to match their course learning outcomes and student's learning styles. Michael Daly, Director of Operations for SUNY OER Services will provide an overview of how all SUNY faculty may utilize OER to improve teaching and learning and lessen the financial pressures for all.

OER Textbook Workshop A: Personalizing Teaching and Learning: Open Educational Resources (OER) in Practice
Michael V. Daly, Director of Operations, SUNY OER Services & Terri Burke, Biology Instructor, Dutchess Community College.

One of the immediate goals in SUNY’s OER initiative is to empower faculty ability to structure their curriculum with content that aligns with their pedagogy, discipline, and learning outcomes - and to do so with ease.

During this hands-on workshop, participants will hear from Biology faculty at Dutchess Community College who remixed openly licensed content with the assistance of SUNY OER Services to create a textbook that meet their needs and the needs of their students. Participants will then explore SUNY’s catalog of ready-to-adopt OER and use tools (Candela) enabling all who want a chance to revise and remix openly licensed content.
OER Textbook Workshop B: Going Beyond Cost Savings: Combining OER and Technology to Realize Learning Gain

Michael V. Daly, Director of Operations, SUNY OER Services & Josh Baron, Executive Director, Northeast, Lumen Learning.

Is your campus working to make textbooks more affordable? Are you also trying to improve student retention and success? Are you excited to learn how open educational resources (OER) can help make curriculum choices that matter to you?

This workshop will discuss OER initiatives in SUNY that are working to address both strategic goals simultaneously by combining openly licensed textbooks with powerful instructional technology platforms. Recent pioneering work led by Carnegie Mellon University's Open Learning Initiative (OLI) and Lumen Learning’s research teams to use data to drive a continuous improvement process for instructional content will also be discussed. Session will include time for Q&A and discussion.

During this workshop we will discuss how SUNY faculty are combining OERs with analytics-based technology platforms as a means to reduce the cost of education while also helping to improve student success. As part of the discussion, co-lead by Michael Daly, Director of Operations for SUNY OER Services and Josh Baron of Lumen Learning (one of SUNY’s primary OER partners), we will also learn about new work underway to use data from these platforms to inform a continuous improvement process that holds the potential to fundamentally shift how instructional content is developed.

The workshop will also offer a facilitated open lab session during which faculty will be able to explore OER courses from SUNY’s Ready-to-Adopt course catalog and get courses setup for further exploration and/or use in the coming academic year.

Traditional Bird Walk

Erich L. Markert, Instructor of Biology, Dutchess Community College.

For this event participants will visit Peach Hill Park, a local Scenic Hudson park and former orchard. Peach Hill park features an unusually rich assortment of plants and animals resulting from the park’s variety of environmental settings, and it's this variety that provides excellent bird watching and photography opportunities.

Volunteering at the Farm Stand, Poughkeepsie

Farm stand is a program organized by Dutchess Outreach where they hand out fresh produce to Dutchess county residents. Dutchess Outreach’s mission statement is “Dutchess Outreach acts as a catalyst for community revitalization and exists in Dutchess County as an advocate and provider of hunger and relief services in order to ensure that everyone, regardless of income, has access to fresh, healthy food, and the support they need.”
REGISTRATION FORM
Empire State Association of Two Year College Biologists (ESATYCB)
36th Annual Conference
Hosted by Dutchess Community College

Title: Looking Forward: Biology Education in the Future
Dates: April 17-19, 2020
Location: Dutchess Community College
53 Pendell Road
Poughkeepsie, NY 12601
Contact: Dr. Dinor Dhanabala (845) 431-8317, esatycbconf2020@suny dutchess.edu

Name: ____________________________ School: ____________________________
E-mail Address: ____________________________

Please check each event you plan to attend and enclose a check for the total amount.

Registration
☐ Member $75 ______
☐ Non-Member $90 ______
☐ Student $15 ______
☐ High School Teacher $35 ______

Dining
Friday, April 17, 2020
5:30 - 9:30 p.m. ☐ Dinner & Reception $0 ______

Saturday, April 18, 2020
7:30 a.m. – 8:30 a.m. ☐ Breakfast $18 ______
11:45 a.m. to 12:45 p.m. ☐ Lunch $30 ______
6:30 p.m. – 8:30 p.m. ☐ Dinner $39 ______

Sunday, April 19, 2020
8:30 a.m. – 9:30 a.m. ☐ Breakfast $18 ______
☐ Box Lunch $0 ______

2019-2020 Membership Dues (if not already paid) $15 ______

Please complete the enclosed ESATYCB membership form and submit it with your membership dues.

Contribution to Scholarship Fund ______

TOTAL: ______

For ADA accommodations, please check and specify ____________________________

If you are interested in serving on the Scholarship Committee, please check here ______

If you have any dietary restrictions, please check and specify ____________________________
Please return the registration form and a check made payable to ESATYCB to:

Dave Pindel  
Treasurer  
Corning Community College 1  
Academic Drive  
Corning, NY 14830

Accommodations:
Special conference rates are available at the Poughkeepsie Grand Hotel, NY.
40 Civic Center Plaza, Poughkeepsie, New York 12601. Cost per night: $139.00 + tax.
Reserve by March 15, 2020 for conference pricing.
Phone Reservations: (845) 485 – 5300

For special conference rates please indicate you are attending the ESATYCB Annual Conference while making your reservation. Rooms are limited so reserve yours today!
EMPIRE STATE ASSOCIATION OF TWO YEAR COLLEGE BIOLOGISTS

2019-2020 MEMBERSHIP FORM
ESATYCB Annual Dues (tax deductible) are $15.00

Please send your check, made payable to ESATYCB, to:
David Pindel, Treasurer
Science Department
Corning Community College
1 Academic Drive
Corning, NY 14830-3297

Name __________________________________________ Title ___________________________

Department __________________________________ Date ___________________________

Institution __________________________________________________________

Street Address ___________________________________________________________________________________________

City __________________________ State ______ Zip ________________

Work Phone (_____)__________ Ext. ________ Fax __________________________

E-mail ______________________________________________________________

Specific Interests:
General Biology Majors Non-majors Botany
Anatomy & Physiology Human Biology Human Sexuality Field Biology
Microbiology Parasitology Animal Behavior Biotechnology
Genetics Embryology Evolution Aquatic Biology
Ecology/Environmental Zoology Marine/Oceanography Other __ __ __ __ __ __

Check appropriate line:
Check enclosed for $15.00 for ESATYCB dues
Additional amount of $______ enclosed for Scholarship Fund
I am interested in serving on the ESATYCB Executive Board
I am willing to be the ESATYCB contact person on my campus (to distribute information)
I am also a member of NABT (National Association of Biology Teachers)

**ESATYCB distributes its fall and spring newsletters in electronic format only. However, if you wish to receive a paper copy of the newsletters, please check here ☐.**

ESATYCB also receives $1.00 from NABT for all people who are members of both organizations. Just send your NABT dues directly to them, and they will automatically send a rebate to ESATYCB.

In order to help us maintain an accurate membership database, please check your mailing label for errors and let us know. Please be certain we have your complete address.

Visit us on the web: www.esatycb.org. To access the "Members Only", enter your username (included with your 2019-2020 membership renewal letter; initially lastname.firstname) and the password Esatycl6.