Teacher Workshop: Design Integrative STEM Activities to Make Learning Relevant

Welcome to our 4th annual lab development workshop! It is all about MAKING LEARNING RELEVANT! 😊

Program Goals

(1) To bring **K-12 math & science teachers, school administrators** and **SBU faculty** together for a discussion on the current status of math and science education at both K-12 and college levels. Any challenges recognized from the discussion can lead to opportunities for networking and new partnerships between K-12 schools and SBU math & science departments and/or between K-12 schools for both short-term and long-term purposes.

(2) To provide a **hands-on experience** for K-12 math & science teachers to collaborate on lessons for integrating computer software, mathematics modeling into biology topics. Teachers will practice lab activities transferable to their classroom to provoke student interests in the STEM field.

Acknowledgement

We thank speakers for sharing their insights, and the generous support from WNY STEM Southern Tier Satellite Center, CA-BOCES, Salamanca CSD, Corning Inc. & e-NABLE.
Organizer

Dr. Zhang, Xiao-Ning
Professor of Biology, Director for Biochemistry Program, St. Bonaventure University
Cell phone: (267) 455-4043
Office phone: (716) 375-2485
Email: xzhang@sbu.edu

Program Schedule

<table>
<thead>
<tr>
<th>TIME</th>
<th>ACTIVITIES</th>
<th>LOCATION (Building# on map)</th>
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<tr>
<td><strong>July 9th (Monday)</strong></td>
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<tr>
<td>8:30AM – 9AM</td>
<td>Registration &amp; Breakfast</td>
<td>University Club (#17)</td>
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<tr>
<td>9AM – 12PM</td>
<td>Round Table Discussion</td>
<td>University Club (#17)</td>
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<tr>
<td>12PM – 1PM</td>
<td>Lunch</td>
<td>University Club (#17)</td>
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<tr>
<td>1PM – 3PM</td>
<td>Integrative Activity</td>
<td>Walsh 105, 107 &amp; G08 (#25)</td>
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<td><strong>July 10th (Tuesday)</strong></td>
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<tr>
<td>9AM – 12PM</td>
<td>In Depth Lab Development</td>
<td>Walsh 104, 107 &amp; G08 (#25)</td>
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<tr>
<td>12PM – 1PM</td>
<td>Lunch Talk</td>
<td>University Club (#17)</td>
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<td></td>
<td>Speaker: Dr. Althea Kaminske (SBU)</td>
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<tr>
<td>1PM – 3PM</td>
<td>In Depth Lab Development</td>
<td>Walsh 104 (#25)</td>
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<td><strong>July 11th (Wednesday)</strong></td>
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<td>9AM – 12PM</td>
<td>In Depth Lab Development</td>
<td>Walsh 105 &amp; 107 (#25)</td>
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<td>12PM – 1PM</td>
<td>Lunch Talk</td>
<td>University Club (#17)</td>
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<td>Speaker: Dr. Andrew Olewnik (Univ. Buffalo)</td>
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<tr>
<td>1PM – 3PM</td>
<td>In Depth Lab Development</td>
<td>Walsh 105 &amp; 107 (#25)</td>
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<td><strong>July 12th (Thursday)</strong></td>
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<tr>
<td>9AM – 10AM</td>
<td>In Depth Lab Development</td>
<td>Walsh 105 &amp; 107 (#25)</td>
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<tr>
<td>10AM – 12PM</td>
<td>Prepare lesson plans</td>
<td>Walsh 107 &amp; 104 (#25)</td>
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<tr>
<td>12PM – 1PM</td>
<td>Lunch</td>
<td>University Club (#17)</td>
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<tr>
<td>1PM – 2PM</td>
<td>Prepare lesson plans</td>
<td>Walsh 107 &amp; 104 (#25)</td>
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<tr>
<td>2PM – 3PM</td>
<td>Teacher Presentations</td>
<td>Walsh 104 (#25)</td>
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<td><strong>July 20th (Friday)</strong></td>
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<tr>
<td>10AM – 4PM</td>
<td>Field Trip</td>
<td>Corning Inc.</td>
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</tbody>
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## Participant List

### Allegany-Limestone Central School
- **Lathrop, Tonya**
- **Kinnard, Paige (Curriculum Director)**
  - Email: tlahrop@alcsny.org
  - Email: pkinnaird@alcsny.org

### Belfast Central School
- **Grottanelli, Jessica**
  - Email: jgrottanelli@belf.wnyric.org
- **Mahon, Brandi**
  - Email: Bmahon@belf.wnyric.org
- **Miller, Sandy**
  - Email: smmiller@belf.wnyric.org

### Bemus Point Central School
- **Morton, Linda**
  - Email: lmorton@bemusptcsd.org
- **Nelson, Katy**
  - Email: knelson@bemusptcsd.org
- **Yohe, Carrie (Elementary Principal)**
  - Email: cyohe@bemusptcsd.org

### Bolivar Richburg Central School
- **Dodson, Shannon (Curriculum Director)**
  - Email: shannon_dodson@caboces.org
- **Farwell, Karie**
  - Email: kfarwell@brcs.wnyric.org
- **McClellan, Carol**
  - Email: cmcclellan@brcs.wnyric.org

### Franklinville Central School
- **Cappelletti, Jennifer (HS Principal)**
  - Email: JCappelletti@tbafcs.org
- **Olrogg, Sherry**
  - Email: solrogg@tbafcs.org
- **Ossont, Jennifer**
  - Email: JOssont@tbafcs.org
- **Schifley, Susan**
  - Email: sschifley@tbafcs.org
- **Sylor, Julie**
  - Email: jsylor@tbafcs.org
- **Urmson, Amanda**
  - Email: aurmson@tbafcs.org

### Olean Central School
- **Martel, Mike (HS Vice Principal)**
  - Email: MAMartel@OLEAN.WNYRIC.ORG
- **Andera, Katie**
  - Email: kandera@OLEAN.WNYRIC.ORG
- **Freeman, Daniel**
  - Email: DFreeman@OLEAN.WNYRIC.ORG
- **Marconi, Angelina**
  - Email: amarconi@OLEAN.WNYRIC.ORG
- **Kopec, Laura**
  - Email: LKOPEC@OLEAN.WNYRIC.ORG
- **Ring, Kris**
  - Email: kring@OLEAN.WNYRIC.ORG

### Randolph Central School
- **Jensen, Maein**
  - Email: mjense@randolphcsd.org
Salamanca City CSD
Beehler, Mark (Assistant Superintendent) Email: MBeehler@salamancany.org
Brown, Marcy Email: mbrown@salamancany.org

Scio Central School
McKinley, Cristy (Director of Curriculum & Instruction) Email: CMcKinley@scio.wnyric.org

Co-Instructors (*speakers)

St. Bonaventure University
*Dr. Althea Kaminske, Assistant Professor, Department of Psychology, abauerns@sbu.edu
Dr. James Pientka, Assistant Professor, Department of Chemistry, jpientka@sbu.edu
Dr. Scott Simpson, Assistant Professor, Department of Physics, ssimpson@sbu.edu
Dr. Xiao-Ning Zhang, Professor, Director for Biochemistry, xzhang@sbu.edu

University of Buffalo
*Dr. Andrew Olewnik, School of Engineering and Applied Sciences, olewnik@buffalo.edu
Mr. James Whitlock, Associate Director of Computing Services, whitlock@buffalo.edu

e-NABLE Volunteer
Mr. Skip Meetze, retired engineer, skip.meetze@gmail.com

Student Volunteers

William Byron, Biomedical Engineering, Rochester Institute of Technology
Abdalla Beshir, Aerospace Engineering, University of Buffalo
Miguel Chang-Lee, Mechanical Engineering, University of Buffalo
Nicholas Jodush, Biochemistry major, St. Bonaventure University