Binghamton University-SUNY, Binghamton, NY

Carnegie classification: RU/H: Research Universities (high research activity)
Undergraduate enrollment

- Head count: 13,412 undergraduates (and 3,283 graduate students)
- FTE: ~15,000
- % Residential: 60% of undergraduates live on campus
- % Commuter: commuters are mainly students away from home living off campus
- Degrees offered: BA, BS, MA, MS, MBA, MPA, MAT, PhD, EdD
- Institutional structure: five schools (Arts & Sciences, Engineering, Management, Education, Nursing, Public Affairs, adding Pharmacy)
- Undergraduate profile: full-time four year, more selective, first-year retention 90%, 6-yr graduation rate 80%

Following the header, please include **very brief summaries** of:

Expectations for what your team hopes to accomplish while at the Institute
Three tasks are outlined below that would advance Binghamton University's implementation of its new STEM Freshman Research Immersion (FRI) program, in which substantial numbers of freshmen will take courses providing them with real research experience. 1) refine Research Methods (freshman fall) course to improve quantitative reasoning of freshmen and demonstration of that via students' team wiki management and team project poster session at the end of the course. 2) Refine Research Stream courses (freshman spring and sophomore fall) to improve real research experience of freshmen-sophomores with demonstration via the students' research portfolio and team research poster session at the end of the two semester sequence. 3) Develop a parallel Summer Research Immersion (SRI) program that combines the Research Methods and Research Streams courses into an intensive (full-time) summer program

A few words to describe your institution's present work with project-based learning initiatives, programs, etc.
This year Binghamton via the Provost's Office implemented a university-wide STEM Freshman Research Immersion (FRI) program modeled after the FRI at the University of Texas-Austin (UTA). Our team represents four research streams being developed, each of which will work with 60 students per year: Neuroscience, Smart Energy (Chemistry-Physics-Materials Science) Image-&-Acoustic-Signals-Analysis (Computer Science & Electrical Engineering) and Biogeochemistry.

Aspects of curricular change, assessment, evaluation, etc. with which you would like assistance
We emphasize teamwork and collaboration with our undergraduates. Specifically, we are looking for more ways to develop students' teamwork skills earlier and better. Many of our students say they had poor experiences with academic teams in high school and so are resistant to teamwork.

What you might like to discuss with other institutional teams
In fostering student teamwork, discussion of what should be covered in a first semester research methods course (and how), as well as how to assess core concepts and core skills across different research/project-based courses.

Areas of expertise that your team could share with other Institute teams (e.g., faculty development programs, process for adoption of institution-wide learning outcomes, assessment strategies, etc.)
Faculty development for teaching a research course with 25-30 students, assessment of such courses, implementation of freshman research program (Binghamton is part of a multi-FRI consortium).