



Women in Science and Engineering



2022 ANNUAL SUMMARY

Women in Science and
Engineering (WiSE)

suwise.syr.edu
[@TheSUwise](https://www.instagram.com/TheSUwise)

Link Hall 267B

Since 1999, Syracuse University's Women in Science and Engineering (WiSE) has proudly supported the recruitment, persistence, and advancement of women in STEM (science, technology, engineering, and mathematics).

Led by women faculty and professional staff, WiSE serves a total of 19 STEM departments at the University. Our diverse programming and events offer women in STEM a wide variety of networking and learning opportunities, as well as support, encouragement, and inspiration. Through evidenced-based strategies and an active community of mentors and peers, we help women students, postdoctoral fellows, and faculty achieve their professional goals. For more about our mission and history, please visit the WiSE website's About page at: <https://suwise.syr.edu>



CELEBRATING 22 YEARS



Chancellor Syverud and Dr. Ruth Chen were greeted by WiSE faculty and students.

On April 1, 2022, WiSE celebrated 22 years at Syracuse University with great excitement. Almost two hundred students, faculty and staff gathered in a room with beautiful pink, purple and orange posters, banners, and balloons. Syracuse University's Women in Science and Engineering (WiSE) has proudly supported the recruitment, persistence, and advancement of women in STEM, and it was time to celebrate all that has been accomplished.

The event received enthusiastic support from Chancellor Kent Syverud, Provost Gretchen Ritter, Deans of the Colleges of Arts and Sciences, Engineering and Computer Sciences, Falk College of Sports and Human Dynamics and Schools of Education and

Information Studies. The Office of Research and the Graduate School along with all STEM Departments provided not only financial support but participated in the celebration.

The highlight of the celebration included the remarks from the Chancellor and the Provost and a keynote from Dr. Virginia Valian, Distinguished Professor of Psychology, Hunter College. A special feature of the program was two panels, focusing on the Past, Present and Future from the perspective of graduate and undergraduate WiSE alumna and current students. The panelists included remarkable group of Syracuse University's finest, who appreciated the WiSE experience at Syracuse and now extend the legacy in their professional and community work.



Graduate Student and Alumni Panel Led by Dr. Laura Lautz



Provost Ritter with Drs. Marchetti and Artuso

It was wonderful to bring back two WiSE faculty colleagues, Dr. M. Cristina Marchetti, University of California Santa Barbara and one of the original WiSE members, and Dr. Laura Lautz, National Science Foundation for this event. Dr. Marchetti provided insight into the face of Science and Engineering at Syracuse in the early years and beyond. The event also included presentation on the Past, Present and Future of WiSE from Dr. Shobha Bhatia, WiSE Co-Founder, and Co-Director. The traditional WiSE Tea was introduced by Dr. Kate Lewis, Biology Chair and WiSE Co-Director. The Norma Slepecky Undergraduate Research award ceremony was also a part of the event. Many WiSE women faculty participated in making this event so successful.

PROGRAMS OFFERED

WiSE provides programs and support for women in STEM at all stages in their academic and professional careers. The following chart provides an overview of WiSE offerings during 2022. We believe in the importance of peer and near-peer mentoring, and as a result, many of our participants are invited to attend events planned primarily for a different group.



For Undergraduate Students

WiSE Women of Color in STEM (WWoCS)
and Career Preparation Program (WWoCS-CPP)

WWoCS Meetups with Mentors (New!)

Norma Slepecky Undergraduate Research Prize
and Memorial Lecture

Summer Research Support



For Graduate Students

WiSE Future Professionals Program (WiSE-FPP)
and Peer Chats

Scientific Writing Workshops



For Postdocs

Professional Development Opportunities

Virtual Coffee Breaks

Peer Writing Group



For Faculty

Professional Development Opportunities

Junior Faculty Lunch

Faculty-2-Faculty Peer Mentoring Opportunities

Leadership Development Grants

ANOTHER YEAR OF EXPANSION



Dr. Virginia Valian Presenting at Celebration

Another busy year with over 80 valuable networking and developmental offerings. **The array of programs again increased** with the addition of informal mentoring groups for undergraduates in the WWoCS called “Meetups with Mentors” and events centered on the Celebration. The keynote speaker Dr. Virginia Valian, who is an expert in gender equity, met with groups of WiSE students, faculty and chairs providing insights into strategies for success at different career stages. We began preparation for a new first-year student persistence initiative called Welcome to WiSE where women in STEM connect to faculty, STEM resources and peer support.

Highlights - For Undergraduate Students

- WiSE successfully piloted and now established a new sub-program as part of WiSE Women of Color in STEM. The offering, named the **Career Preparation Program** (WWoCS-CPP), was launched in the fall of 2020 and designed for sophomores and juniors. Modeled after the long-standing WiSE Future Professionals Program (WiSE-FPP) for women in STEM graduate students, participants must complete five program credits and submit a portfolio (to receive the program's certificate, digital badge, and small stipend). This fall, we conducted a qualitative data analysis using the anonymized reflection statements from completed portfolios. The inaugural two years were heavily impacted by the pandemic but despite the challenges gains were reported. Associates described personal growth in self-assurance, motivation, network building, and knowledge about becoming involved in research. Participants also increased their sense of belonging in STEM, sense of identity as scientists, engineers or researchers, and professional skill sets. WiSE faculty leadership are developing new innovative features to further enhance the student experience and outcomes based on the feedback we received.
- WiSE launched a new addition to the WiSE Women of Color in STEM program called "Meetups with Mentors." Undergraduate students meet with graduate women facilitators/mentors to discuss a variety of topics relevant to them and provide support to one another.



Participants at the WWoCS Ropes Challenge, Fall Welcome Event and Spring 2022 Social

- This year, the Norma Slepecky Undergraduate Research Prize ceremony was held during the WiSE 22-Year Celebration. The WiSE faculty chair of the Norma Slepecky Prize was Dr. Heather Coleman, Associate Professor and Assistant Chair of the Department of Biology. The prize was awarded to Amber Vandepoele for her work titled *Maximizing the Value of Evidence Through the Phylogenetic Differential Separation of Environmental Samples*. She conducted her research in the Forensics and National Security Sciences Institute under Dr. Michael Marciano.
- WiSE supported **Summer Research** for five undergraduates through collaborations with the Louis Stokes Alliance for Minority Participation (LSAMP), Syracuse Office of Undergraduate Research and Creative Engagement (The SOURCE), and other programs. WiSE "tops up" awards from others, so students have sufficient funds to conduct fulltime research on campus.



Slepecky Award Ceremony 2022

Highlights - For Graduate Students

- WiSE-FPP AY 2021-2022 **enrolled** 55 Associates. Once again, more graduate students were nominated by faculty to participate in the program than there were slots available.
- **Peer Chats** were added to WiSE-FPP events in fall 2021 and continued through 2022. Modeled after the successful WiSE Postdocs Virtual Coffee Breaks current and former WiSE-FPP Associates serve as facilitators. These are important to peer mentoring and community building.
- WiSE again, in collaboration with the Graduate Student Organization (GSO), delivered two well-attended **Scientific Writing Workshops** with Dr. Elizabeth Paley of Duke University. *"Revision strategies introduced in the workshop were very helpful!"*
- WiSE worked with **Hendricks Chapel and Dean Brian Konkol** to offer **Reflection, Renewal, and Our New Normal**. The informative and impactful presentation and discussion helped all to consider the ways to renew after the stress of the pandemic and accept the new way of working and thinking post-pandemic. Students learned to think about how we live by design and not by default.
- WiSE recruited **more portfolio reviewers** than in previous years (42 total). These faculty and professional staff members volunteered their time to review WiSE-FPP and WWoCS-CPP Associates' documents and provide helpful feedback. We and the students are thankful.

"When attending WiSE-FPP peer chats, it has made me feel more understood as a woman in STEM. Hearing experiences from women across disciplines yet like my own has aided me in feeling a bit less alone in some of the difficulties that come with being a woman in STEM (e.g., power dynamics, imposter syndrome)."

"Collectively, the WiSE-FPP programs have opened my eyes to the number of resources available on campus that I was previously unaware of as well as showing me a community of support and likeness that I can turn to when needed."

"This program really opened new windows for me in terms of planning my future career, how to pursue that, and importance of connections and networking!"

-From WiSE-FPP portfolio reflections and evaluations

Highlights - For Postdocs

- WiSE Postdocs continued **Virtual Coffee Breaks**. These informal events provided women postdocs with networking and peer mentoring opportunities—building new and lasting, supportive relationships. With peer support, six of our postdocs secured their "dream positions" in the academy and industry.
- WiSE worked closely with the **Ombuds Office** to collaborate/pilot a program for developing interpersonal communication skills for tough conversations.



Participants at the WiSE Postdocs Citrus Social on November 14, 2021

Highlights - For Faculty

- **WiSE Leadership Development Grants** for women STEM faculty were awarded again in 2022. Grants were given for individual coaching and/or leadership development training. One participant said, *"I am very fortunate to have received the grant during the Spring 2022 semester. The activities completed to date have and will contribute to my ongoing success. I look forward to continuing to learn and grow in my leadership position."*
- The Leadership Development group offered a peer mentoring opportunity for those applying for grants for AY23. Prior recipients mentored those interested in developing their leadership skills.
- WiSE continued its **collaborative approach** led by a dedicated team of faculty advisors and professional staff. See list at right.

Highlights - Outreach

- This year, WiSE was invited to participate in six campus welcome back fairs.
- Our website and social media presence has shown great promise under our graduate assistant Ellen Connuck. We now have a LinkedIn Alumni group. Check us out at suwise.syr.edu or on Facebook, Twitter, YouTube. LinkedIn and Instagram. Handle is @TheSUwise.
- Sharon Alestalo, Program Director, read short stories about women in science to third graders at the Citizenship and Science Academy of Syracuse. She also asked students to "draw a scientist." To her surprise many students drew women or gender-neutral scientists. Always curious about the evidence, a 2018 [science.org](https://www.sciencemag.org) article reported that a study based on 20,860 drawings over 50 years found that more children are drawing women than ever before. Progress!



WiSE Leadership and Staff

(AY 22 and AY 23 included)

Faculty Co-Directors

Dr. Shobha Bhatia (AY99 -AY23)
Dr. Katharine Lewis (AY18 – AY23)

WWoCS and WWoCS-CPP

Dr. Dawn Johnson (lead AY15-AY23),
Dr. Shikha Nangia, and Dr. Ruth Phillips
Graduate Mentors:

Jasmine Gomez, Sucheta Lahiri, and Elizabeth Oguntade

Norma Slepecky Undergraduate Research Prize and Lecture

Dr. Heather Coleman (Chair AY22-AY23), Dr. Shobha Bhatia, Dr. Katharine Lewis, and Sharon Alestalo

General Undergraduate Programs

Dr. Katie Cadwell (lead AY22-AY23)
Dr. Katie Becklin and Dr. Moira McDermott

WiSE-FPP

Dr. Sucheta Soundarajan (lead AY21-AY23,
Dr. Heidi Hehnly, Dr. B. Jakubiak and Dr. Laura Machia

Peer Chat Facilitators:

Alona Kulesha, Lauren Mayse, Subhasree Sengupta,
Emily Watts, and Julia Zeh

Postdoc Mentoring

Dr. Jessica MacDonald (lead AY23) Dr. Samantha England, Dr. Carla Frare, and Dr. Paula Sanematsu

Faculty Mentoring

Dr. Julie Hasenwinkel (lead AY20–AY23) and
Dr. Latha Ramalingam

Faculty Leadership Development

Dr. Eleanor Maine (lead AY20-AY23),
Dr. Qinru Qiu, and Dr. Jennifer Ross

Professional Staff

Sharon Alestalo (Program Director AY09-AY23)
Amanda Latreille (Assistant Director (AY20 -AY23)

Student Assistants

Graduate Program Assistant: Ellen Connuck
Undergraduate Program Assistants:
Viktoria Jakubikova, Kate Kemnitz,
and Candice Ogbu

In December 2022 after over three years of excellent support to students and postdocs, we said goodbye to Amanda Latreille. Faculty Affairs is the fortunate recipient of her many talents. We wish her well on her new journey at Syracuse University.

IMPACTFUL AND VALUED

The following is a closer look at WWoCS and WiSE-FPP and the programs' evaluation highlights for the 2021-2022 (AY22) academic year. The findings illustrate significant, positive student impact and consistently valued programming, as well as strong alignment with the overall mission and goals of WiSE.

WWoCS

Percentage of AY22 survey respondents indicating increased knowledge, confidence, and/or skills because of attending events was **100%**.

- Event topics: Resources for Success, My Research Experience, Identity and Belonging in STEM, Personal Statement, Career Panel, Assignment Mindfulness, Conversation with Faculty on Setting Career goals.
- Percentage of survey respondents indicating:
 - **90%** felt supported in their pursuit of a STEM career.
 - **85%** increased Their sense of belonging in STEM.

Percentage of survey respondents rating WWoCS events as above average or excellent was **100%**.

Above findings taken from WWoCS anonymous event surveys in 2021-2022.

Of the AY22 pilot cohort of WWoCS-CPP Associates, **13 (of the 19 or 68%)** completed the program and earned a certificate and digital badge (WWoCS-CPP is a one-year program).

- Requirements: 5 program credits and portfolio submission (for faculty/professional staff review).
- In their reflection statements, participants described their improvements and experiences through words like confidence, helpful, opportunity, guidance, career goals, new skills, strengthening networking skills and bonding with likeminded women.

WWoCS-CPP Associates selected for 2022-2023: **25**



WiSE-FPP Associates Group Picture

As a first-generation student pursuing a PhD, this panel helped me learn more about the world of academia that I had not known (i.e., salaries and responsibilities at R1 vs teaching institutions).

I appreciated the space the panelists had to answer questions authentically and honestly. Very helpful.

-Feedback from FPP Early Careers in Academia Event

WiSE-FPP

Percentage of survey respondents indicating increased knowledge, confidence, and/or skills because of attending events was **97%**.

- Event topics: Fall Welcome, Visual Communication, Dr. Rebecca Wachs, Postdoc Life, Women in Motion, Resume Workshop, Early Careers in Academia, Portfolio Reviewer Panel, and Peer Chats

90% of survey respondents rated WiSE-FPP events as above average or excellent.

Above findings taken from WiSE-FPP anonymous event surveys 2021-2022.

Of the 2020-2022 cohort of WiSE-FPP Associates, **21 (of the 25 or 84%)** completed both years earning a certificate and digital badge. (WiSE-FPP is a two-year program). Each year we have a combined cohort of first year and second year students.

- Requirements: 5 program credits and portfolio submission (for faculty/professional staff review) each year.

WiSE-FPP Associates (first and second years) selected for 2021-2022: **55**



The number of women faculty in STEM in 1997 totaled 18 in 10 core STEM departments of the Colleges of Arts and Sciences and Engineering and Computer Science (WiSE data). These core departments plus the iSchool saw a doubling of their numbers during the SUAdvance project, an NSF ADVANCE Institutional Transformation grant that WiSE initiated and remained heavily involved in from 2010-2017. In 2022, there are over 225 women STEM faculty in the 19 departments WiSE serves (WiSE data). STEM women faculty in the WiSE served departments have been awarded nearly \$75 million in research funds in the last five years according to the Office of Research. These grant funds have steadily increased annually during this time except in AY20 when COVID restrictions were at their highest.

The picture above is a group shot of women in STEM from the 22-Year Celebration.

The graphic below is from the 22-Year Celebration in 2022.

