

Inclusive Pedagogy in Human Nutrition, Foods, and Exercise: data and ongoing projects

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INCLUSIVE EXCELLENCE
AT VIRGINIA TECH

hhmi
Howard Hughes
Medical Institute

Description

Project 1: Increase Experiential Learning Opportunities

Project 2: Faculty development

Project 3: HNFE Recovery Allies

Challenges/Opportunities

The need for increased participation in experiential learning by underrepresented students.

- 100% of science track HNFE students do field study or other experiential learning project
- Only 1 in 65 (1.5%) of Transfer students in HNFE participated in credit-based undergraduate research.

The need for faculty development and training around inclusive pedagogy, but lack of time by faculty.

- Faculty want to include inclusive practices but need training.
- No extra time in their already busy schedules.

The interest in targeting entering students who need a second chance and want to be in a health-based discipline.

- Life circumstances-alcoholism, addiction, caregiver or partner of alcoholic or addict, petty crime, etc.
- Many may be interested in programs such as HNFE which promote health, nutrition, well-being.

Outcomes



Projects in HNFE should focus on inclusive pedagogy for First Generation Students, Transfer Students and URM



Need more information on which courses are problematic, and what type of inclusive pedagogy would benefit these groups



Assess whether training during departmental faculty meeting-based is effective to target entire faculty.



Recovery Allies are being trained and then can help in training faculty on best practices

Ongoing Data Collection and Projects

HNFE DATA

Figure 1: Analysis of Education Advisory Board (EAB) "Navigate" platform analytics for Human Nutrition, Foods, and Exercise (HNFE) Department majors as a whole (All), and as subgroups of Male, Female, First-Generation students (First Gen), Underrepresented minorities (UnderRep), and Transfer students. **Grade Point Averages (GPA) for HNFE students are higher than CALS average ($P < 0.01$; data not shown), but within HNFE were lowest for First Gen ($P < 0.05$).** Transfer and URM students have high variability year-to-year in GPA (not significant due to low N). Data and statistical analysis by Hao Wang, HHMI graduate fellow.

Figure 2: Using these same groupings, **graduation rate for First Gen and Transfer students is lowest** compared to All HNFE students (low N, significance not tested).

Figure 3: Retention of HNFE students is lower than CALS, with 30-40% transferring out of STEM majors ($P < 0.05$).

Figure 1

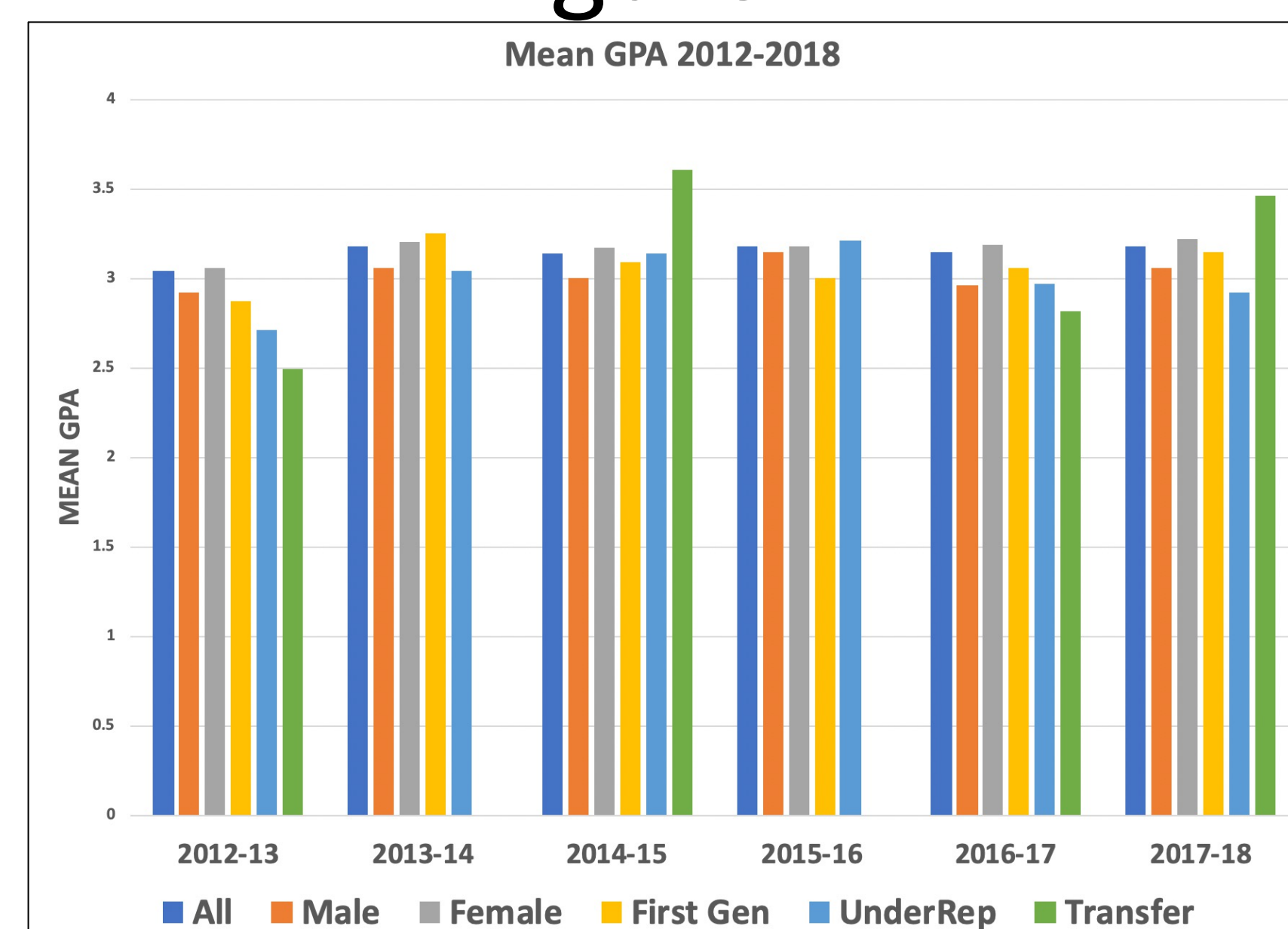


Figure 2

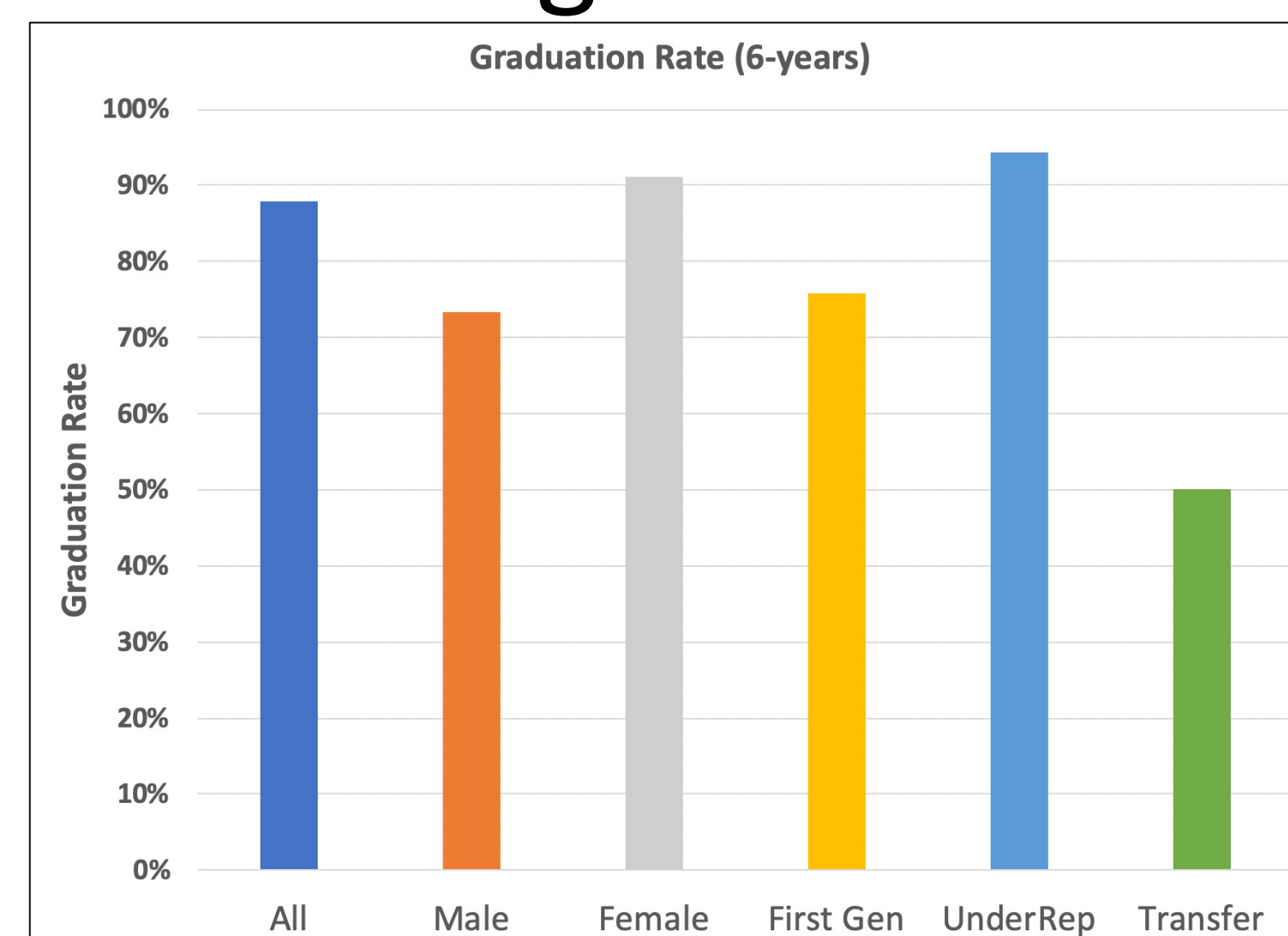
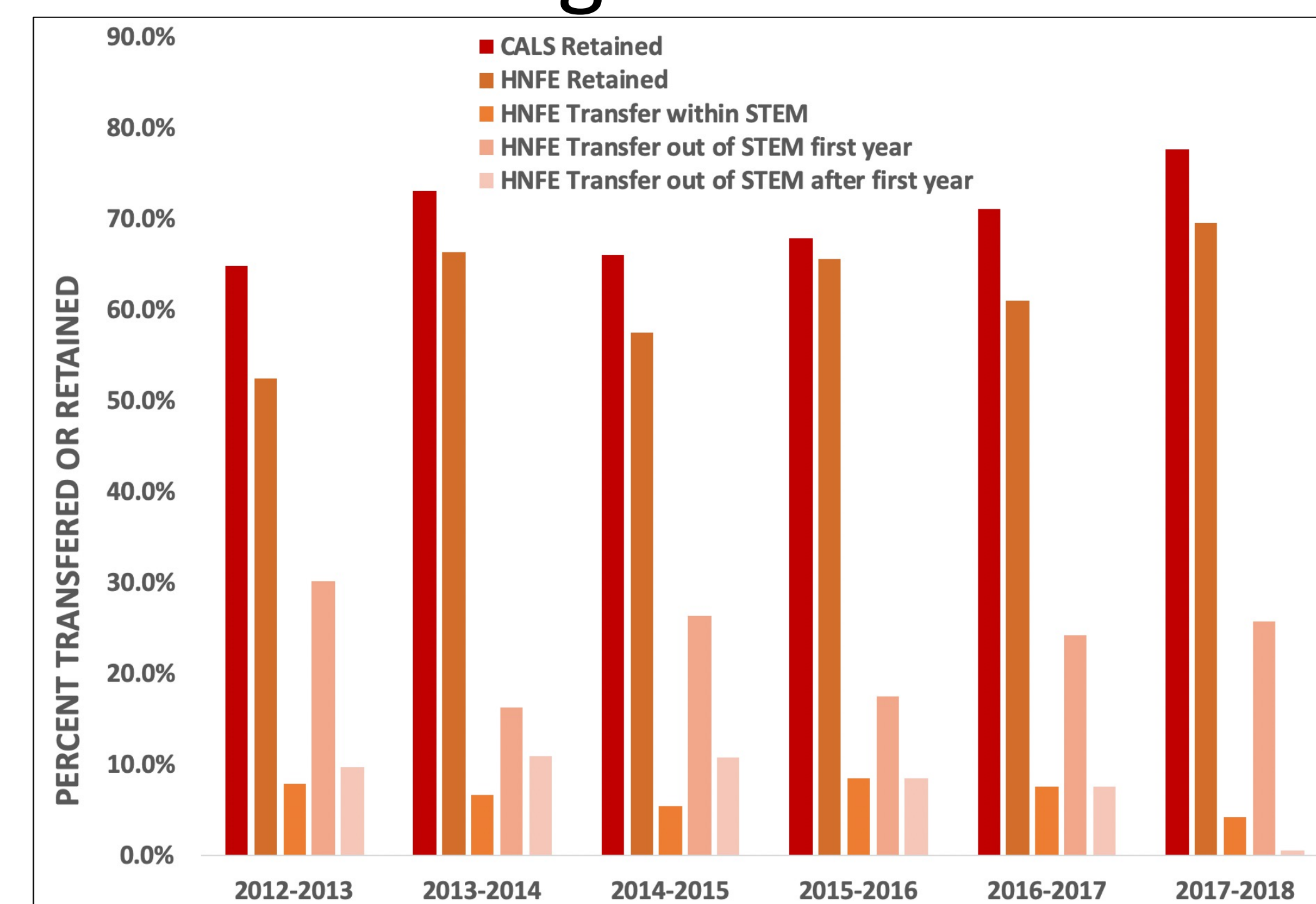


Figure 3



HNFE Projects



Figure 4: Team-building exercises in HNFE 1114

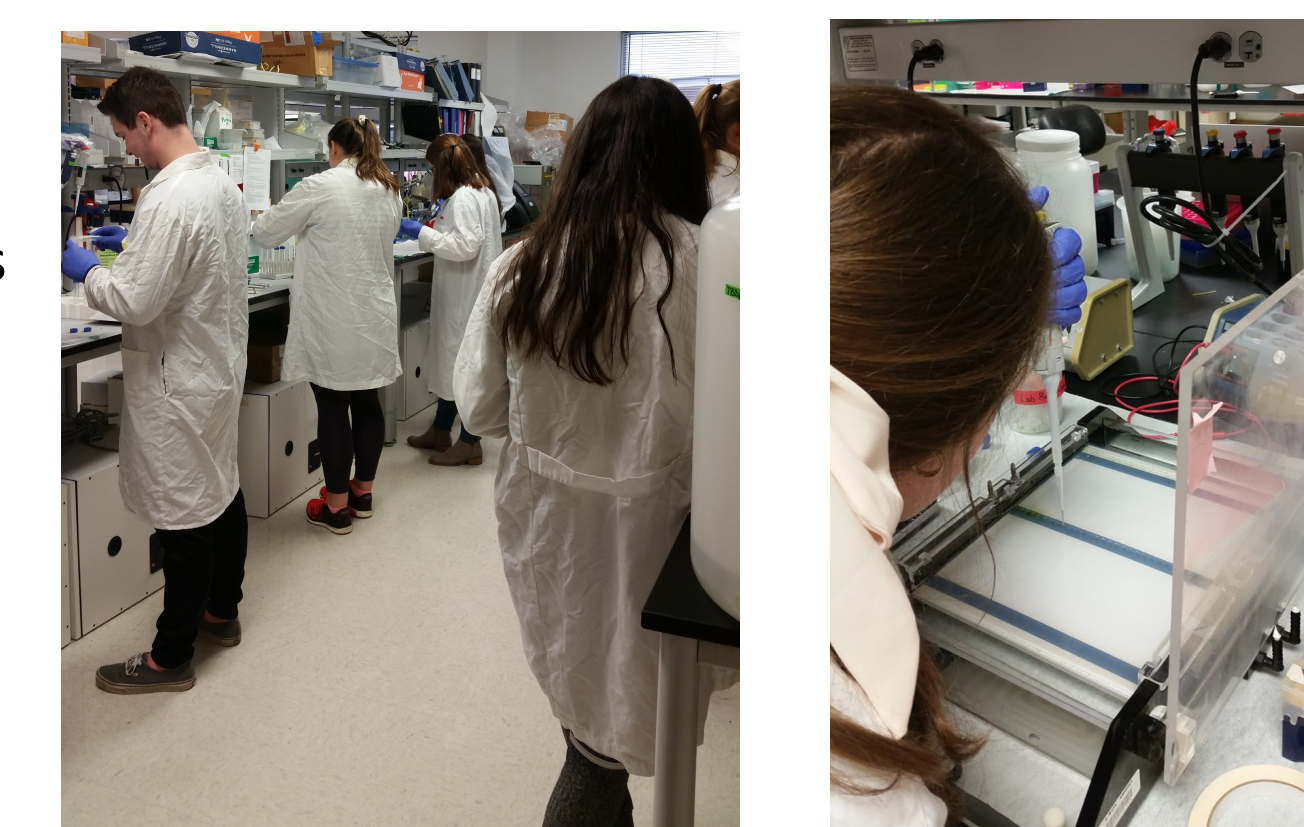


Figure 5: Students in the Metabolic Nutrition CURE



Figure 6: Students attending 2019 SE-ACSM conference

• Renee Eaton modified the content of HNFE 1114 "Transfer Orientation to Human Nutrition, Foods, and Exercise" to include team-building exercises (Figure 4) and laboratory tours. One student began participating in undergraduate research within his first semester.

• Deborah Good and Angela Anderson are starting their second year of the Metabolic Nutrition CURE.

• Deborah Good, Sasha Marine (Biochemistry) and Hannah Scheer (ALCE) were funded by Center for Excellence in Teaching and Learning to examine possible curricular changes that would improve learning outcomes in the *Biochemistry – Metabolic Nutrition* course sequence. Angela Anderson has joined the group analyzing HNFE 4025 data. Data on transfer students, and underrepresented populations can be pulled during analysis.

• Deborah Good and Donna Westfall-Rudd (Agricultural Leadership and Community Education) started a faculty/staff Lunch and Learn in 2019, and have upcoming workshops scheduled for 2020 in collaboration with Chevon Thorpe, Biochemistry. Plans are to include CALS faculty and beyond in other departments and programs.

• Student travel funding to the South East American College of Sports Medicine Conference in Greenville, SC in February 2019. Ten students attended with Dr. Angela Anderson and Renee Eaton.