

NISTS 2021

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Research Spotlight

Engineering Community College Transfer: Examining the Influence of Pre-Transfer Programs on Transfer from Students' Perspectives

Matriculation Trends and Issues, Transition Programs and Services

Navigating vertical transfer in a highly sequenced discipline, like engineering, is cumbersome and sometimes discouraging. Early integration transfer advising programs can help to ease the transfer experience. In this research spotlight session, we will compare experiences of vertical transfer students who participated in an engineering-specific early integration advising program with transfer students who did not participate in the program. We highlight several themes and provide recommendations for designing discipline-specific early integration transfer advising programs.

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Hannah Glisson, *Graduate Research Assistant, Virginia Tech Network for Engineering Transfer Students (VT-NETS)*

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Virginia Tech

*Engineering Community
College Transfer:
Examining the Influence
of Pre-Transfer Programs
on Transfer from
Students' Perspectives*

Virginia Tech - Network for Engineering Transfer
Students (VT-NETS) Grant Project
Department of Engineering Education

Introductions



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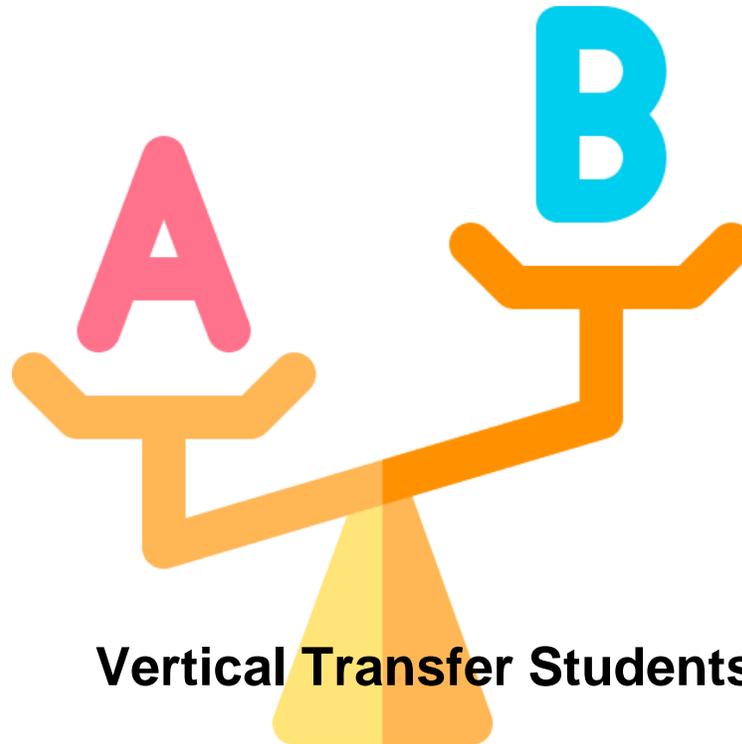
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Purpose

**Students in
Pre-Transfer Programs
(VT-NETS)**

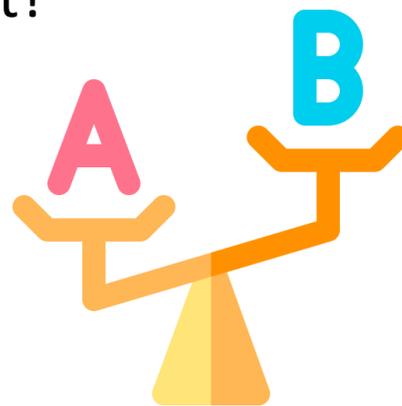


**Students not in
Pre-Transfer Programs
(Non-NETS)**

Vertical Transfer Students

Research Questions

- How does participation in an early integration transfer program influence students' experiences of the transfer of coursework process?
- How do students' experiences who participate in an early integration transfer program compare with experiences of students who do not?



Virginia Tech Network for Engineering Transfer Students (VT-NETS)

National Science Foundation Grant

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Enhance community college to bachelor's degree pathways in engineering via collaborations between community colleges and universities

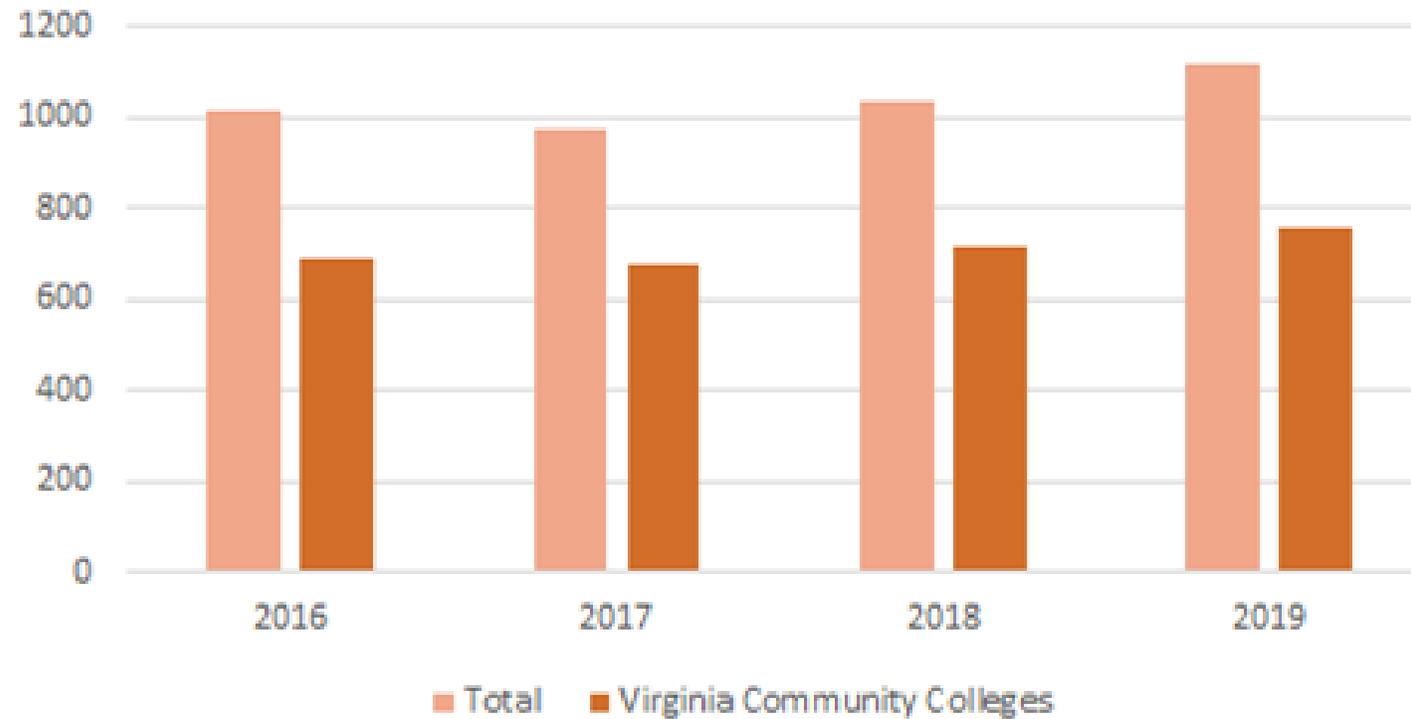
Improve educational equity through broadened participation in engineering

104 total student participants in 3 cohorts



Transfer at Virginia Tech

Historic Transfer Class at VT



Guaranteed Admissions Agreement

College of Engineering and Virginia Community College System

1. Completed a transferable engineering or science Associate Degree¹ in May of the year they plan on beginning at Virginia Tech
 - a. Applicants not completing associates degree until summer may not be guaranteed a spot in the fall class of the same year; such students are guaranteed admission, but may be deferred admission to a later term, dependent on course availability per program.
2. Achieved a cumulative grade point average of not less than 3.2 (in a 4.0 system) on Associates Degree, as determined by the Virginia Tech Undergraduate Admissions Office²

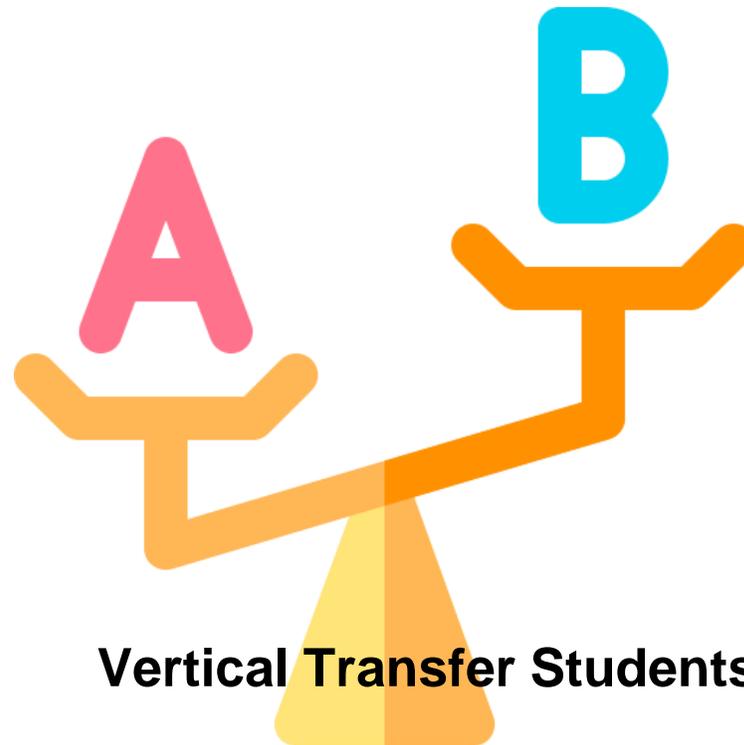
¹ Degree must be Associate of Engineering or Associate of Science with a concentration in Engineering. Degree must be transferrable, not an Associate of Applied Science.

² All course grades on the VCCS transcript, including repeated classes, are included in the calculation of the overall GPA prior to degree being conferred.



Purpose

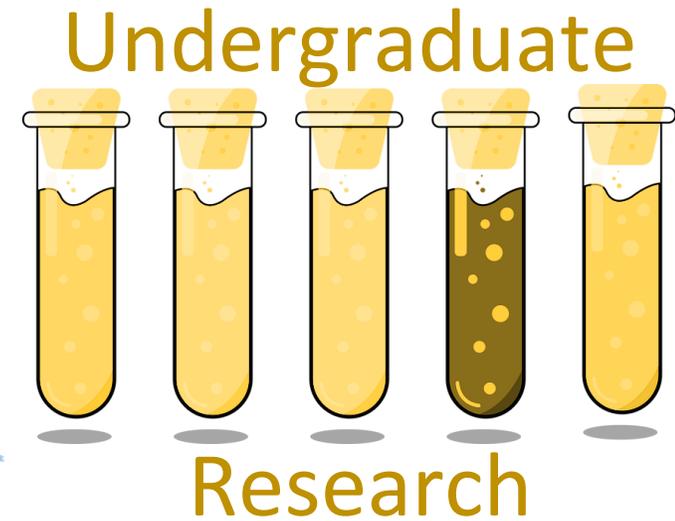
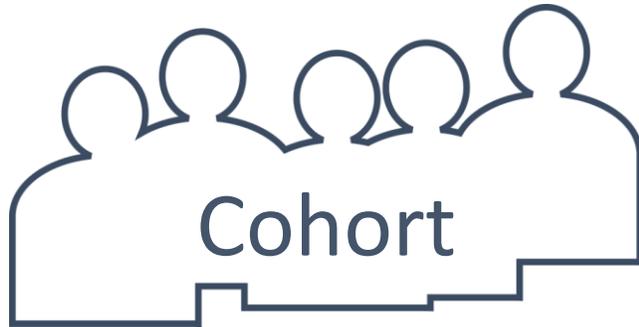
**Students in
Pre-Transfer Programs
(VT-NETS)**
6 of 14 interviewees post-transfer



**Students not in
Pre-Transfer Programs
(Non-NETS)**
13 of interviewees post-transfer

Vertical Transfer Students

Early Integration Transfer Strategies



University Visits



Data and Methods



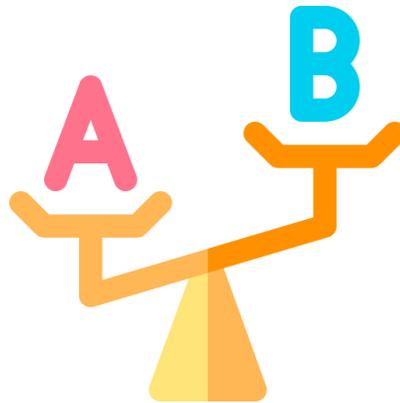
Interview protocol explored five primary areas of the transfer of coursework process:

1. how students receive **information on transfer of coursework** prior to transfer,
2. the role of **academic faculty/advisors** in the course transfer process,
3. the application of **transfer articulation agreements** in practice,
4. perceptions of **academic preparedness** for incoming transfer students,
5. how **transfer of courses** and variation across academic programs influence transfer student success.

Responses

- Thematic review across each group.
- Similarities or differences between two groups.
- Representative student quote.

VT-NETS



Non-NETS



Why Community College?

Students in both groups viewed community college as an alternate path to Virginia Tech.

VT-NETS

Well, my high school experience was, I **wasn't the kind of student that would be getting AP credits or trying that hard**. So I didn't really care much about school until I went to community college and I realized that I really needed to grind down and get good stuff and learn so I can get a job.

Non-NETS

So, in high school I didn't really do the best and I wanted to go to Virginia Tech. I **applied to Virginia Tech, but I got turned down**. So I decided to just go to NOVA.

Did you transfer using the articulation agreement?

Neither group could say with confidence if they used the agreement or what it entailed.

VT-NETS

Actually, that's a good question. **I think I did** as far as I'm concerned. Yeah, that's the thing, I think I didn't because I didn't have the associate's at the time. Like I said, I technically got it in May.

Non-NETS

I believe so. I don't think I ever signed anything about it. I just applied and then I had all the stuff checked off for it so I assumed it was guaranteed.

Would you recommend to other students to transfer via the articulation agreement?

Despite uncertainty about the articulation agreement, both groups would recommend it to others.

VT-NETS

I would think so. At least I feel like it should be a default place to be. But as far as I guess the most secure way to get there, not just being guaranteed in, but it'll save you a bit more money and a few other things. I think it should be a default.

Non-NETS

Yes. 110%. Do the guaranteed admissions, if you can. Yes, yes. Do it. It makes life so much easier. Especially moving to Virginia Tech. There's so many factors that you have to consider when you move down here.

Who helped you at Community College?

VT-NETS participants were more likely to seek help from their advisors, while Non-NETS transfer students felt they had no support or relied on older students.

VT-NETS

[VT-NETS Advisor] understood what people needed. She made spreadsheets for all of us, in terms of here's the track you want to do. Here's the prereqs you need. And **she was professional on a whole different level. So she definitely became a default for, should I take this class? Should I drop this and make this other decision? Giving me the confidence to move some things around**, as I needed to, so that I could still get to VT on time with enough credits, and also not be trapped with one professor or a bad class here or there. **If I was on my own, I don't think it would have even been a competition.**

Non-NETS

Nobody

I had knew some **people who were a year ahead of me** who were still going through the process, but no one who had completed the process. So I had some idea of the transfer process, but not directly from the community college.

Who did you contact at Virginia Tech?

VT-NETS participants had many more contacts within the university during their time at community college.

VT-NETS

Because I was in VT NETS, I feel like **I had a lot more contact**. I came up here like two, two times before, and one of them was signing my agreement with them, and it was a clearly laid out contract that if you do well in these classes, you get in. I kind of knew I was in, but some of my classmates who say, weren't in this program, I know it was a little bit more stressful for them.

Non-NETS

I had a couple of friends that went here, so I visited campus probably once or twice, but I **never really talked to an advisor until I enrolled**.

I did two campus visits. Essentially I did one when I originally decided I wanted to come here as a freshman and then I did the transfer preview day.

What can college do to help students transfer in engineering?

VT-NETS participants already had access to the kinds of information non-NETS students desired.

VT-NETS

I would say that something that would be kind of a **motivation** thing, is if somebody from Tech came down and was like, these are the **opportunities** you're going to have if you work hard, and end up making it here, kind of thing.

Non-NETS

Like the universities, like in publications and in advertisements, advertising the fact that transferring is a good option for students, especially to people still in high school. It's like, "Yeah, there's the university," and for a lot of people that's a good track, but there's also a really good **option of going to community college** and figuring stuff out first, and I feel like a lot of high school students don't know that. I think they get bombarded with a lot of four year institution information but they don't know that they could go one place and then transfer another place. It's something that people sort of find out as they're working through or once they get to the end of their fourth year and they're like, "Oh, yeah. Maybe I should have done that."

Access to 'Insider' Knowledge

VT-NETS advisor had 'insider' knowledge of VT that was harder for non-NETS students to find.

VT-NETS

[VT-NETS Advisor] understood what people needed. She made spreadsheets for all of us, in terms of here's the track you want to do. Here's the prereqs you need. And **she was professional on a whole different level. So she definitely became a default for, should I take this class? Should I drop this and make this other decision? Giving me the confidence to move some things around**, as I needed to, so that I could still get to VT on time with enough credits, and also not be trapped with one professor or a bad class here or there. **If I was on my own, I don't think it would have even been a competition.**

Non-NETS

When I was trying to get here, basically students that go to that [community] college basically kind of fed into [other university]. . . and all the advisors only know [other university]. **They have no idea how to get into Tech. So I had to figure that out all by myself.**

The head of the engineering department . . . once he'd know you because I mean, there weren't a lot of us there, maybe 50 of us total. So, he'd know what school you wanted to go into. And then sometimes be like, "Are you taking the right courses?" And he'd be like, "No, don't take that course. **You need to take this course because it's not going to be offered next semester because then you're going to get pushed back, so take this, drop that.**"

Deeper Knowledge of How Credits Transfer

Generally, VT-NETS students had more Transfer Student Capital with coursework than non-NETS transfer students.

VT-NETS

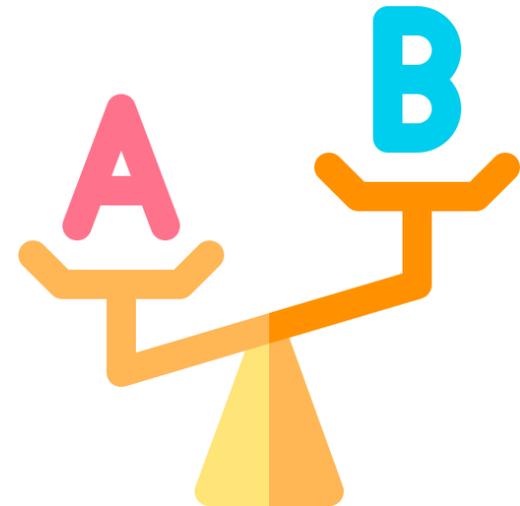
I was taking classes over the summer as I transferred over too, so the problem with that is that some of it, it's prerequisites to other classes. So towards August, Virginia Tech put a hold on my account saying, "You can't take this class, you haven't met the requirements of taking the prerequisite" **so I had to make some calls to tell them that I've sent my transcript and I need you to re enroll me to these classes**, because I actually got dropped from a lot of classes.

Non-NETS

So, that, it's a problem because every credit you transfer, the maximum credit you can transfer is half of the credit, the Virginia Tech program, right? So, if you have 123 credit, you might have **less credit transfer** if you are doing computer science than doing computer engineering.

Results

- Confusion around transfer policies.
- Pre-transfer advising in VT-NETS improved students' knowledge and understanding of coursework transfer and allowed students to look beyond transfer to life at VT.
- Faculty involved in VT-NETS at community colleges gain “insider” knowledge to better support students with transfer of coursework process.



Recommendations



- Monthly meetings geared specifically to engineering transfer.
- CC advisor education and involvement
- Website clear & comprehensive
- Students are not clear of GAA intent/process/purpose
- Offer summer opportunities to fall transfer students
- Virtual University visits with live Q&A





*Engineering Community
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