**Highlights from Math Ed Faculty Panel**

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***Faculty Office Location/ Email***

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**Dr. Vandersandt-** SCP240 vandersa@tcnj.edu

***Getting to know the Math Ed Faculty***

**Dr. Cunningham** had a teacher in grade school that sent him to board everyday. That is where he was inspired to one day create a student-oriented classroom of his own, where students learned by doing. Dr. Cunningham’s research interests revolve around representations and student discourse.

**Dr. Liebars** had a good experience in high school math courses and was inspired by a math teacher that she had for three years (in high school). Dr. Liebars researches on professional development of teachers.

**Dr. Russell**, a TCNJ Alum, switched from physics to pure math. His parents are teachers and he had liked math as a student. Dr. Russell a former high school teacher says he tries to push students to actually learn math instead of just reproducing memorized material, he likes to sneak axioms and explanations into lower level classes. He is also interested in doing research on category theory.

**Dr. Safi** has always been interested in teaching, it was a high school math teacher he had who inspired him to go into math secondary ed. He enjoys teaching math because it is a challenge and he is very fascinated by the subject. Dr. Safi’s research interests are about how people develop their conceptual understanding, how the math students learn students at the elementary level helps develops their math abilities later on.

**Dr. Vandersandt** grew up in town where girls were told they shouldn’t do math. However, this discouragement didn’t stop her and 3 female peers, who learned math by teaching each other. Dr. Vadersandt studied psychology and is interested in how some people love math and others hate it. She researches on what factors lead to successful math teaching (especially in geometry).

***FAQs***

1. **How much does your success in a math content course, specifically those at higher levels, correlate with your success as a secondary math teacher?**
* TCNJ provides excellent prep in content and pedagogy
* High level courses result in high mathematical confidence
* Don’t stress over your GPA because it does not define your education success
1. **What are some ways to pursue PhD in mathematics education**

1. Teach pre-grad school

2. Enter grad school post undergrad degree

3. Some teaching experience is helpful when applying to grad school

1. **What degree do we graduate with?**
* Elementary Ed Majors graduate with a BS degree.
* Math Secondary Ed majors graduate with a BA degree.
1. **What Praxis exams are Math Education Majors required to take and when should they be taken?**

It is recommended that the test be taken between junior and senior year at the latest. The new requirement requires students to take it before student teaching!

* Preschool – Grade 3
	+ Early Childhood Content Knowledge (5022) - passing score 159
* Elementary K – 6, Special Education and Deaf Education
	+ Elementary Education Multiple Subjects (5001)

Reading and Language Arts Subtest (5002) - passing score 157

Mathematics Subtest (5003) - passing score 157

Social Studies Subtest (5004) - passing score 155

Science Subtest (5005) - passing score 159

* Mathematics Secondary Education
	+ Mathematics Content knowledge test (5161) - passing score 160
1. **What is the process of getting certified in another state?**
* Other states recognize certification in NJ
* Additional testing may be required
* Application fee and paperwork

More information can be found at http://education.pages.tcnj.edu/offices-partnerships/certification/

1. **Changes to the NJ Certification active 9/1/15**
* To gain entry to the program (to enroll in JFE) need a 2.75 GPA
* Required to have a 1600 on SAT or a 23 on ACT
* If you have not met this requirement, you need to pass Praxis Core tests (reflection of CCSS)
* Need a 3.0 to receive teaching certification
1. **Requirements to get Middle School Specialization (Only for Secondary Ed Majors)**
* Enrollment in Middle School section for JFE
* Split Student Teaching (half middle school, half high school)
* Attend a 5 lecture Colloquium Series: Best Practices in Middle School Education

For more information, visit http://msspec.pages.tcnj.edu/

1. **Why is it important to have a K-12 Understanding of Mathematics?**
* Foundation of higher-level math class comes from elementary level math
* Teachers teach people first, and content second
* Ideas about math are formed before students get to your classroom
1. **Why is it important for pre-service teachers to attend Math Ed Conferences?**
* Conferences create a math ed community and give students an opportunity to connect and collaborate with others (students, educators)
* Opportunity for professional development
* Traveling opportunities
1. **What are common challenges faced by first year teachers?**
* Getting up early is a struggle
* Confidence and arrogance
* Unexpected things can happen
* Classroom management plays a significant role in your profession
* Never match frustration with a student
* To be a good teacher, you need to realize failure is part of it and you can/ should learn from it
1. **Ways to motivate a student**
* Your motivation will direct student behavior
* Strategies for motivating students
	+ Become a role model for student interest.
	+ Get to know your students.
	+ Use a variety of student-active teaching activities. Teach by discovery & cooperative learning activities
	+ Set realistic performance goals
	+ Place appropriate emphasis on testing and grading.
	+ Be free with praise and constructive in criticism.
	+ Give students as much control over their own education as possible.
1. **Top 10 Reasons to become a teacher**

1. Experience the joy of making a difference

2. Have a vocation, not a job

3. Enjoy interpersonal interactions

4. Benefit from variety

5. Be a lifelong learner

6. Laugh every day

7. Have a high level of autonomy

8. Job security

9. Spend more time with your family

10. Enjoy lots of vacation