March 2014

Spring 2014 Advising Newsletter
Department of Mathematics and Statistics

Dear Majors and Minors in the Department of Mathematics and Statistics,

Registration for Fall 2014 classes will take place April 1-11 and advising will begin shortly. We cannot emphasize enough the importance of meeting with your advisor to discuss your academic plans, progress, and career goals. To encourage you to meet with your advisor, every non-graduating student (so seniors graduating this Fall aren't eligible, sorry!) who meets with their advisor will be entered to win a **$25 gift card** from the bookstore. To enter the raffle, please pick up an entry form when you meet with you advisor. Fill out the information and drop the form into the box in the department office. We'll draw and announce the winner once registration is over. Your advisors should be contacting you to arrange a time to meet, but you can also reach out to your advisor to schedule an appointment. Good luck in the drawing!

Here are a number of general department announcements that you should be aware of:

1. *Student Advisory Board and Suggestion Box.* The Student Advisory Board is composed of the seven majors: Rose Costanzo, Alana Huszar, Evan Levy, Ryan Manheimer, Mary Jo Mikhail, Matthew Rusay, and Beth Sweeney. These students represent all of the department's majors and specializations and meet with the co-chairs twice a semester to discuss issues of concern. Our next meeting will be next Tuesday, March, 25th. Suggestions can be sent to the Student Advisory Board at mathsab@tcnj.edu. We also have a suggestion box in the department office (a green box labeled "Suggestion Box").

2. *Waiting Lists.* The Department will again have a waiting list for all closed classes. Once your registration time opens up, if a class is closed, you should fill out the Google wait list form (the link is at the top right of our web site). As students change courses, and spots open up in closed classes, the Department will fill the spots with students from the wait-list. The wait list should be used only when there is a closed section that you need to enroll in and there is no open section that fits your schedule.

3. *Differential Equations.* All students in the Applied Mathematics specialization, and all students considering switching to the Applied Mathematics specialization should take MAT 326: Differential Equations as early as possible in their college career. It should be taken no later than the end of their sophomore year. We have reserved some seats in the course for applied math students and sophomore math majors (any specialization).

4. *Capstone Courses.* All senior Mathematics and Statistics majors are required to complete a capstone course (MAT/STA 498). These courses are only offered in the Spring semester. When planning your fall schedule, you should ensure that your schedule will allow you to take the capstone course in the spring. Also, students who expect to graduate in Fall 2015 will need to

take the capstone course in the Spring 2015 semester. Education students take the capstone course that accompanies their student teaching experience which can be done in either semester. Please make sure that you have completed the necessary prerequisites for the capstone. Remember that one of the prerequisites for the capstone is to attend four seminar/colloquium presentations in your junior and senior years prior to taking the capstone course. Students currently enrolled in a capstone will be giving presentations at the end of this semester. Other students, especially juniors, are encouraged to attend.

5. *Departmental Honors.* We would like to encourage more of our majors to consider earning departmental honors. Departmental honors are awarded by our department at graduation and appear on one's transcript. They are independent of the College's Honors Program, and the Latin honors (*summa cum laude*, …) awarded at graduation. To earn departmental honors, students must have a 3.5 GPA in mathematics and statistics courses and complete the following:
    - A student must engage in independent research during their junior or senior year. The student should successfully complete an Independent Research 493 course during a semester they spend on-campus, and prepare a paper which will be due the middle of their last (graduating) term. A presentation (which we envision being a 40 minute talk, perhaps during a lunch period) will be given in the two week period following the submission of the paper. The members of the student's Honors Committee will be present, and be given ample opportunity to ask the students questions about their research to gauge their level of understanding.

    We expect that there will be two Honors presentations near the end of this semester. Students considering departmental honors should attend these presentations.

6. *Applied Mathematics Options and 400-level requirement.* The Applied Math Options for the 2014-15 academic year are indicated by an asterisk below. Applied Mathematics majors should also remember that they must take a 400-level Applied Math Option course and at this time, these courses are only offered in the spring semester.

7. *Sections of Courses.* The following list shows the currently anticipated number of sections to be offered for the upper level courses in the major. The list of all regular offerings can be found on the course offering page of our web site: http://mathstat.pages.tcnj.edu/information-for-students/courses-2/courses/

    The courses listed in bold are courses that were not offered during the current 2013-14 year or are being offered in a new semester. Please take advantage of the opportunity to take them! Descriptions can be found at the end of this newsletter.

Fall 2014 Semester (# of sections)	*Spring 2015 Semester (# of sections)*
MAT 301: Number Theory (1)	MAT 301: Number Theory (2)
MAT 305: Abstract Algebra (2)	MAT 305: Abstract Algebra (1)
MAT 310: Real Analysis (1)	**MAT 310: Real Analysis (1)**
MAT 316: Probability* (2)	**MAT 315: Topics in Linear Algebra* (1)**

MAT 326: Differential Equations (2)	MAT 316: Probability* (2)
MAT 330: Mathematical Biology* (1)	MAT 320: Complex Analysis (1)
MAT 351: Geometry (1)	MAT 326: Differential Equations (2)
MAT 370: Topics in Mathematics (Combinatorics) (1)	MAT 351: Geometry (1)
MAT 452: Topology (1)	**MAT 451: Seminar in Algebra (Group Theory) (1)**
	MAT 453: Seminar in Analysis* (Fourier Series) (1)
	MAT 498: Capstone (2, Liberal Arts Math and Applied Math Capstones)
MTT 380: Methods of Teaching Mathematics I (1)	MTT 390: Methods of Teaching Mathematics II (1)
MTT 490: Student Teaching (as needed)	MTT 490: Student Teaching (as needed)
STA 305: Regression Analysis (2)	**STA 306: Applied Multivariate Analysis (1)**
STA 304: Sampling and Nonparametric Statistics (1)	**STA 318: Operations Research* (1)**
STA 410/ MAT 318: Mathematical Statistics (1)	**STA 370: Topics in Statistics (Bayesian and Computational Statistics) (1)**
	STA 498: Capstone (1)

We wish you a successful registration session. Please write or see us if you have any questions!

Sincerely,

Professors Hagedorn and Liebars
Co-Chairs of the Department of Mathematics and Statistics