October 2014

**Spring 2015 Advising Newsletter  
Department of Mathematics and Statistics**

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

Registration for Spring 2015 classes will start November 4th 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 Spring 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. *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.
2. *Seat Reservations*: Some math courses, such as MAT 128, MAT 229, and MAT 326, have seat reservations to help ensure that students from different specializations and majors can take the course. At registration, a course might be listed as open, but because of seat reservations, PAWS might not let register for the course. If you experience this, please try to register for another section of the course. If none fit your schedule, please let us know by filling out the waitlist. We will do our best to see if the problem can be solved.
3. *Differential Equations.* 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, if possible, no later than the end of their sophomore year. We have reserved seats in the course for sophomore math majors (any specialization).
4. *Capstone Courses.* All senior non-education 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.   
     
   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. Other students are also encouraged to attend.   
     
   Math secondary education students take the capstone course that accompanies their student teaching experience MTT 490. This can be done in either semester, but all major requirements must be completed before student teaching and the seminar requirement above must also be fulfilled.
5. *Department Seminars*: There will be three more department seminars this semester.
   * Tuesday Oct. 28, 12:30-1:20: Dr. Michael Ochs, School of Science Colloquium in SCP 101
   * Tuesday, Nov. 11,12:30-1:20: Dr. Matt Fury ’04, Penn State-Abington. In SCP 231.
   * Friday, Nov. 21, 12:30-1:20: Dr. Jeremy Russell ’04, TCNJ. In SCP 231.
6. *New state regulations for education majors (applies to freshmen and sophomores only):* As of Sept 1, 2015, students will need to demonstrate "basic skills" using one of the approved methods (SAT min 1660, Praxis Core, ACT min 23) by the entry point (beginning of junior year; i.e., the semester before the Junior Field Experience [JFE]).  Therefore, if your combined SAT score is below 1660 or your combined ACT score is below 23, you will need to pass the Praxis Core exam before you may begin JFE.  In addition, the minimum overall GPA will be 2.75 before being permitted to take JFE.   
     
   *New state regulations for education majors graduating after September 1, 2016*: To be recommended to the State Department of Education for certification, a candidate graduating after September 1, 2016, must have obtained an overall GPA of 3.0.
7. *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.
8. *Sections of Courses*. The following list shows the currently anticipated number of sections to be offered for the upper level courses in the major. Courses in bold are courses not offered every year. An asterisk (\*) designates an Applied Mathematics Option course. 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 math/stat options for the 2015-16 academic year have not yet been decided, but will be chosen by December.

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| *Spring 2015 Semester (# of sections)* | |
| MAT 301: Number Theory (2) | MTT 390: Methods of Teaching Mathematics  II (1) |
| MAT 305: Abstract Algebra (1) | MTT 490: Student Teaching (as needed) |
| MAT 310: Real Analysis (1) |  |
| **MAT 315: Topics in Linear Algebra\* (1)** | STA 306: Applied Multivariate Analysis (1) |
| MAT 316: Probability\* (1) | **STA 318: Operations Research\* (1)** |
| MAT 320: Complex Analysis (1) | **STA 370: Topics in Statistics (Bayesian and  Computational Statistics) (1)** |
| MAT 326: Differential Equations (2) | STA 498: Capstone (1) |
| MAT 351: Geometry (1) |  |
| **MAT 451: Seminar in Algebra (GroupTheory) (1)** | |
| **MAT 453: Seminar in Applied Mathematics\* (Fourier Series, Transforms and Wavelets)** (Applied Mathematics major receive priority in enrollment) | |
| MAT 498: Capstone (2, Liberal Arts Math and Applied Math Capstones) | |

1. *Student Advisory Board and Suggestion Box.* The Student Advisory Board is composed of the six majors: Rose Costanzo, Alana Huszar, Erik Johnson, Conor Kelton, Kevin Kremenich, and Mary Jo Mikhail. These students represent all of the department’s majors and specializations and meet with the chair and associate chair twice a semester to discuss issues of concern. 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”).

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

Sincerely,

Professors Hagedorn and Liebars  
Chair and Associate Chair   
Department of Mathematics and Statistics