Mathematics Department
Four Year plan, Classroom to Career

1A. Freshman Year, Mathematics Department

☐ Academic Advising
Use your academic adviser and the peer advising program to explore Mathematics and other potential majors, minors, programs and courses, given your interest.

☐ Dream Job
What is your "dream job" after graduation? What are you passionate about? Talk to your faculty adviser and other mentors. As a Mathematics major, how can you use your time at Fairfield to prepare for it through class work, internships, volunteer activities, summer jobs, leadership positions with clubs and organizations, and other relevant out of class experiences.

☐ The skills of mathematicians are crucial to many business, nonprofit, and government operations so that graduates who have majored in mathematics are employed in a wide range of professional fields. Many have made their careers in the insurance industry, beginning as actuaries. Teaching is a popular option, with a number of students seeking secondary school opportunities. Mathematicians are, of course, much in demand for computer-related work where their analytic skills are highly prized.

☐ Tutoring Appointments
The Mathematics Center, located in the Bannow Science Center (BNW129A), is a place where students can get free tutoring for statistics and first year calculus courses. In order to make the most of your tutoring session, please read through your class notes beforehand, bring your text book and come prepared with specific questions. This will help you and your tutor identify what to focus on most.

1B. Freshman Year, University wide

☐ Hear From The Experts
Attend lectures on campus and hear from professionals and experts in your field of interest. Start with the Open VISIONS Forum and look for other events listed in the university calendar. In choosing FYE events to attend, include those most related to career interests.

☐ Seek Out As Many Experiences As Possible
Not sure of a career path? Use extracurricular activities to help you expand, or narrow, your choices.

☐ The Core: Start Exploring
Talk to your faculty adviser about how to choose core courses that will encourage you to explore new areas and supplement your areas of interest and career goals.

☐ Showcase Your Material
Start collecting materials you put in a portfolio to market yourself and help show your experience. Create a blog or e-portfolio to both present the work (newspaper stories, poetry, well-crafted essays, videos) and to offer reflections on them. Contact CAS Associate Dean Aaron Perkus for help in creating an e-portfolio.
Discover your passion!
Take chances on different classes and majors. Find faculty members who can guide your journey here. Get plugged in and, along the way, discover what you are passionate about.

Summer Jobs
Work with your faculty adviser to discuss options for a summer job that could give you experience and add content to your resume.

Campus Clubs and Student Organizations
Invest your time in activities that give you experience in your field of interest and put you in touch with students who might have similar career interests.

Study Abroad

Work, Work, Work
Look for a relevant job on or off campus to gain work experience. Consider volunteer opportunities, often tied to your academic interest, to give you experience and provide information on potential careers, especially with non-profit organizations. Look for summer internships and jobs so you can apply classroom lessons to the professional world.

Living and Learning
Make plans for sophomore year to team up and network with other students who share your career interests.

Lead On
Look for chances to begin building your leadership skills. Take advantage of New Student Programs that bridge the classroom with the residence halls. Network with students in your residence hall who are enrolled in the same Cornerstone classes and participate in the First Year Experience (FYE) program. This will help you to make friends who share your passions and interests.

Preparing for graduate school, early
A large percentage of Fairfield students further their academic careers after four years at Fairfield. Fairfield’s pre-law program has a full-four year agenda of recommended activities. For freshman year, interested students should concentrate on attaining high grades in your University Core classes; develop good study habits; attend St. Robert Bellarmine Society Events; and follow the Pre-Law website for events and tips on applying to law school. Talk to your academic adviser about preparing for graduate school options.

Ask A Librarian
The DiMenna-Nyselius Library has resources to help you to discover, begin and manage your career. If you would like assistance in using any of these resources, contact a librarian.
Start Career Planning. Now
Make an appointment with the Career Planning Center (CPC) to meet with staff, talk about your goals and aspirations, and how to best utilize your next four years of college. Read about jobs in which you might be interested. Attend Career Fairs and ask employers what they are looking for in new hires. Look at the CPC's online Career Planning Advisor Videos and Research Tools.
2A. Sophomore Year, Mathematics Department

- **Faculty advising**
  Use your faculty adviser and peer advising to choose the best courses, given your interest. Be prepared for your annual meetings.

- **Mathematics Center**
  Located in the Bannow Science Center (BNW129A), The Center is a place where students can get free tutoring for statistics and first year calculus courses. In order to make the most of your tutoring session, please read through your class notes beforehand, bring your text book and come prepared with specific questions. This will help you and your tutor identify what to focus on most.

  Interested in a paid position to tutor other students? Contact the department chair for details.

- **Internships**
  Talk to your faculty adviser and start planning now for potential internships as a senior. Think about "trying out" a career, gaining work experience, marketable skills, potential mentors and a competitive edge. Look for potential matches between an internship with your career.

- **Keep Dreaming**
  What happens after Fairfield? What would be your "dream job" – and how do you get there? Talk to your adviser. Mathematicians are, of course, much in demand for computer-related work where their analytic skills are highly prized. Survey information indicates that the majority of Fairfield graduates take their interest in mathematics to a higher level. Graduates of recent years have earned advanced degrees from such institutions as Cornell, State University of New York at Stony Brook, Rensselaer Polytechnic Institute, and New York University.

- **Honors Programs**
  Qualified Mathematics students participate in the Honors Program at Fairfield University and, for students with an exceptional academic record of achievement, the opportunity to be elected to the country's premier honor society, Phi Beta Kappa.

- **Line Up References**
  Start to look for 3+ professors in Mathematics and elsewhere who might serve as professional references for you. Discuss your future plans with them and ask for guidance. Stay in touch with them so they can speak about your successes in an informed way.

2B. Sophomore year, University wide

- **Hear From The Best**
  Look for lectures on campus when professionals in your field come to speak and often meet with students

- **Career Readiness**
  Want to get a jumpstart on your future? Sophomore Success is a series of casual dinners developed to help you figure out such questions as: Facebook, LinkedIn and Twitter – do they

- **Yes, employers look at GPA**
  Keep your eye on the goal of academic excellence.

- **Leadership Skills**
  Consider a leadership role with a student club or organization to help give you leadership and management experience.

- **Service Learning Courses**
  Look for Fairfield courses that give you a chance to interact with the off-campus community, gain experience, and maybe pick up a resume credit.

- **The Study Abroad Fair**
  The Study Abroad Fair will give you tips to use in finalizing any travel plans for junior year. Talk to faculty and other students on how the experience could help further your career goals.

- **Build A Portfolio**
  Consider creating a blog or e-portfolio to collect materials that you can use to promote yourself in the future. [Build a blog.](#)

- **Relevant Summer Job**
  Talk to faculty and Career Planning to increase your chances of securing a summertime job (after sophomore year) that is related to your career goal, can give you some experience, and serve as a credit on your resume. Use Facebook and LinkedIn to present yourself to the world in a professional manner.

- **Career Planning**
  Don't wait! Make another appointment with a Career Planning Center counselor. Consider taking a "self-assessment inventory" test to help you get a better handle on where your strengths might be directing you. Update your resume. Look for workshops that can sharpen skills in writing resumes, networking, and mock interviewing. Register with Experience, Fairfield's online recruiting system, and get familiar with how it works. Students can search for jobs, internships, information on career fairs, and submit resumes to jobs and internships of interest.

- **More Career Planning**
  Attend Career Fairs and ask employers what they are looking for in new hires. Make an appointment with the Career Planning Center to meet with staff and talk about your goals and aspirations. Look at their online Career Planning Advisor Videos. Look at the Research Tools for Careers.
3A. Junior Year, Mathematics Department

☐ **Options After Fairfield**
How can you best use your remaining courses and free electives to both round out your education and prepare for a career? How about graduate work? The majority of Fairfield graduates take their interest in mathematics to a higher level. Graduates of recent years have earned advanced degrees from such institutions as Cornell, State University of New York at Stony Brook, Rensselaer Polytechnic Institute, and New York University. Mathematics majors are not limited in their choice of postgraduate careers. Their studies prepare them to be analytical, reflective, and understanding of the fundamental values in any enterprise.

☐ **Research Projects**
Talk to favorite professors about possible supervised research projects you might do in your area of interest, in the summer or during the school year. On-campus summer housing may be available.

REU Program

The Research Experiences for Undergraduates (REU) programs are opportunities for undergraduate students nationwide to participate in original and advanced research, working closely with faculty mentors as well as with a selected student cohort. Available at a select number of educational institutions around the country, these summer programs are funded at least in part by the National Science Foundation. Fairfield’s Mathematics and Computer Science REU Program will bring together talented undergraduates from both inside and outside the University to work with Fairfield faculty mentors over the Summers 2011, 2012, and 2013 on original mathematics and computing research projects. Contact Dr. Shawn Rafalski

☐ **Independent Studies**
Interested in a research area but there is no course offered in the catalog? Talk to a faculty member or department chair about a possible independent study

☐ **CAS Awards**
Mathematics has department awards for outstanding students every spring; they are honored at the College of Arts and Sciences award night in April. Attend the event and look for projects that might earn you this honor. With your faculty adviser, gain experience in entering such a competition and learn how to effectively package and present your work-and yourself. Non-seniors are often singled out for their great work.

☐ **Internships**
In senior year, Mathematics majors have access to a developing range of internships with public and private agencies available to all Fairfield students in good academic standing. As a senior mathematics major you may have an opportunity to serve an internship in a public or private agency where you will get career-related experience under supervision. You can earn credit for these experiences during the academic year or during the summer, provided that you complete an academic component specified by your academic advisor. Insurance companies are particularly interested in summer interns. Think about "trying out" a career, gaining work experience, marketable skills, potential mentors and a competitive edge. Look for potential matches between an internship with your career. Remember that summer jobs, not for credit, can be just as useful in gaining experience and building a resume.
References
Look for three professors, in and out of the department, who can speak about your successes in an informed way.

3B. Junior Year, University wide

- Shadowing
  Fairfield is expanding its program for students to shadow alumni, where the student can take an inside look at a career, get an overview of a company or industry, explore individual career options and goals, and receive advice from a professional. Students in biology and psychology are among those who benefitted in the past. Contact Alumni Relations.

- Study Abroad
  Use a Study Abroad trip to gain a cross-cultural perspective, move toward becoming a global citizen, and think more broadly about your studies and career possibilities.

- Resumes
  Continue to polish and hone your resume. What’s missing? How can you use your remaining time at Fairfield most effectively?

- Working with professors
  Talk to your academic adviser and other professors in your department about what else you can do to build on classroom learning.

- Leadership
  Gain management experience - and give something back - by taking a leadership position in a campus club or student organizations.

- Networking
  Begin networking by connecting with Alumni Career Services and its Fairfield Alumni Network (FAN) program. Look for relevant information in the Alumni Career Webinar Series, focusing on such issues as the job search and professional development. Look at the Fairfield Alumni groups on LinkedIn and join those that are relevant. Look at the Jobs Board and Internship Board.

- RCade workshops
  These free, mini-courses can strengthen technical and computer skills. These days, to compete, you must be proficient in Excel, PowerPoint and Word, plus programs you might need for specialized jobs such as Photoshop and InDesign. Beyond RCade, how can you use any final elective courses to gain additional skills needed for your dream job?

- Summer Jobs and Internships
  Work with your professors to help find relevant summer jobs and internships that can give you more experience and add a credit to your resume.
Service Learning
To learn about paying careers with non-profit organizations, make room on your four-year course schedule for a Service Learning course.

Civic Engagement
As you add to your resume, what other opportunities can you choose to give you applied experience and civic engagement beyond the classroom? They might include summer jobs, internships, leadership roles in campus clubs, or mentoring other students. Work to become a leader and an explorer, through engagement with the broader community.

Hit The Library
The DiMenna-Nyselius Library has a large array of resources to help you to discover, begin and manage your career: If you would like assistance in using any of these resources, please contact a librarian.

Hear from the professionals
Attend lectures on campus when professionals in your field come to speak and often meet students. Start with the Open VISIONS Forum and other events at the Quick Center.

Leadership
Gain management experience - and give something back - by taking a leadership position in a campus club or student organization.

Your Portfolio
Consider creating a blog or e-portfolio to collect materials that you can use to promote yourself in the future. (Build a blog.)

Volunteer Opportunities
Look for a relevant job on campus to gain work experience. Consider volunteer opportunities, often tied to your academic interest, to give your experience and provide information on potential careers, especially with non-profit organizations.

Career Planning Counselor
Have a counselor review your updated resume to develop it further and add your summer activities. Upload your resume on Experience for summer internships. Practice interviewing techniques with Counselors and take advantage of Mock Interview opportunities with real employers. Attend workshops. Participate in the Career Fair so you can see what it is like, begin meeting employers and researching who you might want to work for.
4A. Senior Year, Mathematics Department

☐ **Capstone Courses/ Independent Study**
Use the Capstone Course to integrate what you have learned and reflect upon how you have grown at Fairfield and where your path will lead you next. The course also is usually a chance to also sharpen research skills, strengthen any Portfolio, and make fresh connections among courses and experiences.

☐ **Research**
Start to narrow your interests and look for ways to use classwork, internships, summer work and potential independent studies to further your interest.

☐ **Service Learning Associates**
Housed in the Office of Service Learning, the Service Learning Associates (SLA) program engages 8 to 10 undergraduates each semester as student leaders to their peers in service-learning courses. Each Associate works intensively with one professor to support a service-learning course which aligns with the Associate's academic background and interests. The Associates meet regularly with both faculty and fellow Associates throughout the semester and attend professional development trainings facilitated by the Office of Service Learning. Contact Danielle Corea, Program Coordinator.

☐ **Final Internship**
As a senior mathematics major you may have an opportunity to serve an internship in a public or private agency where you will get career-related experience under supervision. You can earn credit for these experiences during the academic year or during the summer, provided that you complete an academic component specified by your academic advisor. Insurance companies are particularly interested in summer interns. Talk to your professors or the department chair for details.

☐ **Line Up References**
Finalize 3+ professors from Mathematics and elsewhere who might serve as professional references for you. Discuss your future plans with them and ask for guidance.

☐ **Grad School?**
The majority of Fairfield graduates take their interest in mathematics to a higher level. Graduates of recent years have earned advanced degrees from such institutions as Cornell, State University of New York at Stony Brook, Rensselaer Polytechnic Institute, and New York University.

4B. Senior Year, University wide

☐ **Final Work With Career Planning**
Fine-tune your resume by adding summer jobs and senior classes. Hone your interviewing techniques. Read the Experience calendar daily. Network with alumni through the Fairfield Alumni Network (FAN). Attend the fall and spring Career Fairs. Update your resume on Experience. Apply for specific jobs by uploading your resume to that job description. Participate in real interviews. Look at the employment information and online job board.
Learn While Doing
Look for learning opportunities where you also gain useful experience. They might include internships, Service Learning courses, volunteer positions, and campus leadership roles. Become a leader of a campus organization or club and gain management experience.

Preparing for law school and graduate programs
About half of CAS students further their academic careers after four years at Fairfield. Fairfield’s pre-law program has a full-four year agenda of recommended activities. For senior year, the program encourages interested students, in the summer before senior year, to narrow the list of law schools in which you are interested. Work on your personal statement and application. Line up your letters of recommendation from faculty members and others. Have your application and supporting materials ready by late summer of your Senior year and apply as early as possible. If you were unable to take the LSAT in June of your junior year, plan to take the October exam in the fall of your Senior year. Apply as soon as possible after getting your scores. Attend St. Robert Bellarmine Pre-Law Society Events. Let the Pre-Law Advisor know of your progress in getting accepted. Other students will be anxious to learn from your experience!

Research
Look for opportunities to publicly present your research at academic conferences or on-campus poster sessions.

Capstone? Internship?
How can you most effectively tie together what you have learned? Your final courses allow you to reflect upon how you have grown at Fairfield and where your path will lead you next.

Role Models
Look for lectures on campus when professionals in your field come to speak and often meet students. Start with the Open Visions Forum.

Technical Skills
Attend workshops (sponsored by RCADE and others) to strengthen technical and computer skills. How can you use your remaining courses to gain additional skills needed for your dream job?

Non-Profit Sector
Look for a relevant job on campus to gain work experience. Consider volunteer opportunities, often tied to your academic interest, to give your experience and provide information on potential careers, especially with non-profit organizations.

Library Help
The DiMenna-Nyselius Library has a large array of resources to help you to discover, begin and manage your career: If you would like assistance in using any of these resources, please contact a librarian.

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Alumni Network (FAN). Attend the fall and spring Career Fairs. Update your resume on Experience. Apply for specific jobs by uploading your resume to that job description. Participate in real interviews. Look at the employment information and online job board.

- **View Your Contacts As A Network**
  Do you have faculty references lined up? How about classmates who can help inform you about jobs they hear about. Network!