**Department of Mathematics, UW-Madison 3+1+1 program (VISP-MA) basics**

**Introduction**
The University of Wisconsin–Madison (regionally known as UW–Madison, or simply Madison) is a public research university in Madison, Wisconsin. Founded when Wisconsin achieved statehood in 1848, UW-Madison is the official state university of Wisconsin, and the flagship campus of the University of Wisconsin System.

The UW is one of America's Public Ivy universities. It enjoys high reputation and strong tradition in academics, research, and college sports. It enjoys association with 25 Nobel laureates, 2 Fields medalists and 38 Pulitzer Prizes among alumni, faculty and researchers. It was also ranked No. 3 in the country in 2012 in terms of research expenditures, with more than $1.1 billion garnered in that year. Additionally, as of November 2018, the current CEOs of 14 Fortune 500 companies have attended UW–Madison. This records put UW-Madison No. 1 in the United States in its production of CEOs of  Fortune 500.

The UW-Madison mathematics sits under the College of Letter and Science, the largest college of the university. The mathematics department plays a central role in educating and foster training of students at all different levels throughout the college. It has very strong research tradition, and holds high levels of academics throughout the history. It has affiliation with 2 Fields medalist, 4 National Academy of Science Fellows. Among current and retired professors, the department has at least 12 SIAM (Society of Industrial and Applied Mathematics) fellows, 27 AMS (America Mathematics Society) fellows, … The recent graduate students, upon finishing the PhD went ahead to hold prestigious postdoc/researcher positions at Harvard, Princeton, MIT, Stanford, UC-Berkeley, CalTech, NYU, CMU, UCLA, Cambridge, Imperial College London, among many others. Some of them went on to become faculty members at UC-Berkeley, UC-Santa Barbara, University of Minnesota, Purdue University, UW-Madison, SUNY-Stony-Brook, and etc. A large number of graduate students also opt to work in industry upon graduation, and a lot of them successfully develop their career in big tech companies such as Google, Facebook, Banks, or consulting firms such as McKinsey and The Boston, or financial institutes on Wall Street.

The VISP-MA (Visiting International Student Program + MAster) is a program that was initiated in 2013 by the mathematics department, and was then introduced to departments across the campus. The aim is to bridge the gap between traditional undergraduate learning experience such as class-taking-and-homework-solving, and the graduate school experience that is more research-orienting-and-exploring, so that the top and near top students who are interested in graduate study have the access to a typical graduate students life, before fully determined. This is especially helpful for students from countries that have significant culture differences. The UW-Madison mathematics department also uses this channel to recruit students who demonstrate strong math background for the PhD program. Faculty members at UW-Madison also are engaged in advising, providing sources, and recommending students to top graduate schools across the country.

**Basics**

VISP+MA, as the name indicates, is a combination of two programs. The recruited students are expected to finish their first three years of studies in their home institutions, and spend the forth and fifth year at UW. By the end of forth year, they will be awarded bachelor degree from the home institution, and by the end of fifth year (the end of the program), they will be awarded master degree from UW. In contrast to the standard four-year-BS + two-year-MA program, this curriculum is designed so that the students can obtain their master degrees one year earlier.

**Requirements**

Academically, in the first year of studies, the students enrolled in the program are expected to take 4-6 courses a semester, with a minimum of 3 math courses. If the student wants to take more than one non-math courses, VISP-MA director or Graduate Director’s approval is required. The credits students gain from UW-Madison are transferable to their home institutes to ease the obtaining of a bachelor degree at their home institutes. The department lists all courses to be chosen in the following website:

    <https://www.math.wisc.edu/graduate_foundations_advanced_studies>

When we offer new math courses, you can also take them. Course description is at the following page

<https://www.math.wisc.edu/all-courses>

In the Spring semester of the first year at UW-Madison, the students are giving the option (not mandatory) to apply to our Master Program (MA part of VISP-MA). The admission is automatic if the GPA during the Fall semester at UW-Madison is 3 or above (out of 4). For students whose GPA is lower than 3, the committee will review the process and grant conditional admission (to be specified for particular cases). The standard UW-Madison master program consists a two year training, requiring at least 30 math credits. The students are expected to finish 3-5 courses with at least 2 of them in advanced Math(listed in above webpage of MA program) (I don’t understand this… per semester???). The advantage of combining VISP and MA program is that the credits gained during VISP would count toward the Master Program requirement, saving the students one year of training.

**Academic Adviser:** Each student will also be assigned an academic advisor. This is typically a faculty member from the department, with world-class research in one or multiple sub-disciplines of mathematics. The advisor is available to help students throughout the program. This includes, but is not limited to helping with making decisions on course-selection, career-development, research-wise orientation, etc. The math department is willing to build an informal, harmonic and interactive environment so that the students proceed naturally and enjoyably. For consistency, it is typical that the VISP adviser continue being the MA adviser in the second year.

**Remark**
1. For students enrolled in VISP+MA program, the expectation is that the students stay in UW-Madison for two years graduating with the master degree here. However, the student can also choose to leave anytime during the studies. Historically, the program welcomes strong students to UW-Madison, and they are able to obtain offers from highly-reputable PhD programs across the country within one year. In this case, the department encourages the students making wise decision, and maybe pursuing PhD degree directly without bridging through our master program.
2. If the student fails to obtain GPA that is higher than or equal to 3 during the first year at UW-Madison, the admission to the master program is not guaranteed. Though rare, it has happened in history, and the department urges the students to not take the admission to master program for granted.  In special cases, student can also opt to stay for one year or one semester only for the experience of studying-abroad. The department recognize and permit such situations, and looks after it in a case by case manner.

**Q&A**
Q: Why our VISP-MA?
A: The department intends to be objective for answering this question. Here is the list of answers from former and current VISP-MA students themselves.

1. Your two years at UW-Madison gives you much stronger math background and broader view of math (including applied math and probability) and another field (if you want), which gives you a big advantage in applying for a PhD program in math or math related area(e.g. Statistics, Computer Science, Data Science, and Operation Research, etc), or a more practical Master program.
2. If you prefers to find a job in industry, you can take 4-8 non-math classes (in addition to the math requirement and subject to approval of VISP-MA director/Graduate Director). A strong master degree with knowledge at your job search fields will give you a leg up in job search.  Doing some intern work would be better.
3. Madison is a safe and interesting place to explore different culture. Although Madison is not a big city, it has international flavor because UW-Madison has a lot of international students and faculty. Some students like Madison so much they just stay here to find a job or build their own business.
4. Our tuition is certainly more expensive than that of your home institution, but is still among the most affordable ones in US top universities.
All in all, the department does not believe this is a program that fits everyone. The students should make the decision based on his/her own situation. The department tries hard to make the experience worthwhile, and from historical data, the former and current students in the program are generically happy with their investment.

A little warning: our VISP-MA is a serious program in line with our reputation. Don’t expect to just show up to get the degree. You need to work hard to earn the grades and degree. You also need to be willing to adjust to new environment and culture. It will be an excellent experience only if you are willing to be open minded.

Q: Non-Academic life?

A: The city and the university have international flavor, and is a safe and wonderful place to explore different cultures. Besides Chinese and American, you will also get a lot of chance to interact with people from different countries (if you like). It will open your mind to different thoughts. More is on

   <https://visp.wisc.edu/thematic-math/>

Q: How to Apply?

A: Through your school at the beginning of the Spring Semester of your 3rd year in school.  Your school will collect all applications and filter first through your academic record and in some cases interview, and then recommend to us.  Our Math Department and your School coordinator of this program will work together to decide the admission.  Besides academic requirement, we also require TOEFL 80 or more.

Q: Cost?

A: Roughly speaking, $50K ($38K tuition) for the first year and $40K($28K tuition) for the second year, including tuition and living expense.