



CSMS scholarship exit survey

To: geoff@cs.miami.edu

Fri, May 1, 2009 at 5:17 PM

> 1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

In many ways, I really enjoy the lower level math courses. Most of the material in these courses are more applicable to my science major and the professors make it so accessible (my favorite is when my professor explained Newton's law of cooling via the example of a cow as a cylinder). The higher level math courses (especially courses dealing with abstract math) I find a bit more challenging and less useful. I understand that mathematics is more than just plugging in and getting answers from equations; in many ways it is important to know where the reasoning for these equations come from. But from a scientific perspective, most of these notions are arbitrary to the operations in my study. However, what I take from these classes are not necessarily the math concepts but the logical thinking behind them I believe will prove useful in the future.

> 2. Did your first major benefit from doing CSC/MTH? How did or benefit or not?

*see question one.

> 3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

Generally speaking, doing the MTH major helped me, as a scientist, explain things from a logical perspective. I see that whenever I present results from scientific research, those results have to be backed by some basic, fundamental reasoning. Thus, no matter how much I plug in numbers and get results, if the science behind the numbers does not make sense, then something must be wrong with my logic. I find the math classes really help me prove assertions systematically and logically.

> 4. Did you peers have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

I rather not expose my peers. Besides, the opinions I hear vary across the whole spectrum.

> 5. Did your primary advisor have any opinion about your doing CSC/MTH? What positive or negative opinions did (s)he have?

Likewise, I do not want to expose my advisor.

> 6. Did your instructors have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

This is not a gossip survey.

> 7. Has your employment/further study benefited from doing CSC/MTH? How has it benefited or not?

The major I believe has benefited my employment/further study in the future in that I realize and can now discern what is a reasonable argument. No matter where I go or who I talk to, I can apply my math reasoning to effectively get my point across.

> 8. Would you have started a CSC/MTH major if you had not received a CSMS scholarship? Why or why not?

The math was included in my program as a double major; therefore, I really had no choice. I really loved math before I came to college, now I'm a little indifferent. Whether I had received the CSMS scholarship (which I'm really grateful) or not, I still would have pursued a math double major.

> 9. Now you have finished, would you do a CSC/MTH major if you did not receive a CSMS scholarship? Why or why not?

*see previous question

> 10. Do you have any ideas how we can encourage more science students to do CSC/MTH, besides offering more scholarships?

Train more faculty, have more math classes available in different sections. Make CSC/MTH seminar more accessible to the whole university. Have faculty speak about their research. Bring alumni over to speak about career opportunities. Form clubs with a lot of exciting activities. Many things you can do.

--Thank you very much for this opportunity.



CSMS scholarship

Tue, Jun 1, 2010 at 12:58 AM

To: "geoff@cs.miami.edu" <geoff@cs.miami.edu>

From: geoff@cs.miami.edu [geoff@cs.miami.edu]
Sent: Wednesday, May 05, 2010 2:40 PM

Cc: Geoff Sutcliffe; Victor Pestien
Subject: CSMS scholarship

Hi

Congratulations on completing your Computer Science or Mathematics studies, with the support of a CSMS scholarship. In order to help us encourage and guide more students to do Computer Science or Mathematics as a second major, we will be grateful if you will reply to this email with honest answers to the following questions. Your answers will be kept anonymous, will not be used beyond the CSMS project, and will not be linked to your university records, i.e., whether you loved or hated Computer Science/Mathematics, we would like to know the truth! Just insert your answers in between the questions, as a reply to this email. Thanks!

1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

Yes I did! Doing a second major allowed a much deeper understanding that can be applied to my first major in physics.

2. Did your first major benefit from doing CSC/MTH? How did you benefit or not?

Most definitely. Mathematics is a language of physics, and computer science allows a way to express properties of physics. I can apply both to physics and both provide insight into physics that I made not have gained from a physics only course.

3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

I feel I am well-rounded in a technical sense from CSC/MTH.

4. Did your peers have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

Most thought it was really awesome!

5. Did your advisor for your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did (s)he have?

Dr. Nearing of Physics was very positive about it and thought it provided for a good background.

6. Did your instructors in your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

Overall positive and thought it was a good idea.

7. Has your employment/further study benefited from doing CSC/MTH? How has it benefited or not?

Yes! It was possible for me to complete an internship with NASA most likely because of my background in the fields of physics, math, and computer science. I am also continuing studies in Applied Physics working in the Electrical and Computer Engineering department at Rice. Doing math and cs allowed me to do something other than theoretical or experimental physics.

8. Would you have started a CSC/MTH major if you had not received a CSMS scholarship? Why or why not?

Probably not. I stayed an extra semester to complete the double majors in physics and math, and minor in computer science. I would have not had enough finances to complete all of this.

9. Now you have finished, would you do a CSC/MTH major if you did not receive a CSMS scholarship? Why or why not?

It is definitely worth it, but I probably would have had just two minors instead.

10. Do you have any ideas how we can encourage more science students to do CSC/MTH, besides offering more scholarships?

Let more professors know so that they can tell their students. If possible target advisors and have them recommend it to their students.

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CSMS scholarship

To: geoff@cs.miami.edu

Thu, May 6, 2010 at 9:50 AM

1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

I did. I really liked the programming, but some of the theory classes were very challenging

2. Did your first major benefit from doing CSC/MTH? How did you benefit or not?

It neither helped nor hurt my biology major.

3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

Yes. Aside from teaching me how to program, it taught me problem solving and logic.

4. Did your peers have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

They're surprised I didn't do it sooner.

5. Did your advisor for your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did (s)he have?

No. I started after Meeting with a biology advisor was no longer required. She was never very helpful so I didn't go to her very often.

6. Did your instructors in your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

I don't think I ever told them.

7. Has your employment/further study benefited from doing CSC/MTH? How has it benefited or not?

I don't think it was affected either way.

8. Would you have started a CSC/MTH major if you had not received a CSMS scholarship? Why or why not?

I was considering a minor in csc. I enjoyed the intro classes so much I probably would have ended up taking a major.

9. Now you have finished, would you do a CSC/MTH major if you did not receive a CSMS scholarship? Why or why not?

Absolutely. I probably would have switched sooner.

10. Do you have any ideas how we can encourage more science students to do CSC/MTH, besides offering more scholarships?

I think exposure to the projects some of the cs majors take on would interest people. And also how those projects extend to other fields.

[Quoted text hidden]



CSMS scholarship

Sun, May 9, 2010 at 5:47 PM

To: geoff@cs.miami.edu

> Subject: CSMS scholarship

> Date: Wed, 5 May 2010 14:40:13 -0400
> From: geoff@cs.miami.edu
> CC: geoff@cs.miami.edu; v.pestien@math.miami.edu

> Hi [REDACTED],

> Congratulations on completing your Computer Science or Mathematics studies,
> with the support of a CSMS scholarship. In order to help us encourage and
> guide more students to do Computer Science or Mathematics as a second major,
> we will be grateful if you will reply to this email with honest answers to
> the following questions. Your answers will be kept anonymous, will not be
> used beyond the CSMS project, and will not be linked to your university
> records, i.e., whether you loved or hated Computer Science/Mathematics, we
> would like to know the truth! Just insert your answers in between the
> questions, as a reply to this email. Thanks!

> 1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

The CSC experience was basically fun. Being able to do anything with software is very empowering.

> 2. Did your first major benefit from doing CSC/MTH? How did you benefit or not?

I think it was the other way around: CSC was much easier than it would have been had I not had MTH as my first major. Many 500-level computer science classes are basically math classes.

> 3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

I gained a greater understanding of computers and a plethora of useful skills, in particular, programming skills.

> 4. Did your peers have any opinion about your doing CSC/MTH? What positive or
> negative opinions did they have?

I managed to get one friend to almost switch her major to CSC, and my other friends were also intrigued by the things I talked about from my classes.

> 5. Did your advisor for your first major have any opinion about your doing
> CSC/MTH? What positive or negative opinions did (s)he have?

I was not aware of her opinion.

> 6. Did your instructors in your first major have any opinion about your
> doing CSC/MTH? What positive or negative opinions did they have?

I was not aware of their opinions.

> 7. Has your employment/further study benefited from doing CSC/MTH? How has
> it benefited or not?

Yes, I have many more computer skills than before.
I am becoming an independent iPhone developer.

> 8. Would you have started a CSC/MTH major if you had not received a CSMS
> scholarship? Why or why not?

No, I had enough work as it was, and would have liked to balance some of the CSC classes with other science courses.

> 9. Now you have finished, would you do a CSC/MTH major if you did not
> receive a CSMS scholarship? Why or why not?
>

I would have taken some classes in CSC, but probably not have finished the major, since I like many other things besides CSC.

> 10. Do you have any ideas how we can encourage more science students to
> do CSC/MTH, besides offering more scholarships?
>

Get somebody besides [REDACTED] to teach CSC120. He is a brilliant man, and I learned a lot from him, but he is not well suited to introducing people to programming or computers in general. He seems to have difficulty estimating and accommodating the students different mental faculties.

> Thanks for your feedback!

>

> Cheers,

>

> Geoff, for the CSMS team

>

> Geoff Sutcliffe <http://www.cs.miami.edu/~geoff>

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> ----- "My cat" is not a float. Every string should learn to swim. -----

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CSMS scholarship

Wed, May 5, 2010 at 3:00 PM

To: "geoff@cs.miami.edu" <geoff@cs.miami.edu>

Note: I got the scholarship for CSC but had to do a fair amount of MTH along the way regardless because of my MSM degree.

1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

>> I liked doing CSC for the most part. I'll need to do coding in the future so it's a nice exercise to force myself to do so. The professors were generally enjoyable and although I didn't have much time to hang around the department I got the sense that everyone was jovial and such. I thought the classes were relevant to a degree - I won't be coding in Java for the rest of my life, but I learned tons of programming concepts along the way which will transfer. I must say that the least relevant portion was the Software Engineering class I took this semester - as a scientist I doubt I will be exposed to any sort of development cycles like the ones we studied (they may exist, but so many coding projects are just done individually) so I wasn't thrilled about my experiences in the class (not to mention it's a LOT of work for a last semester class, though I guess if I were smarter I could have scheduled it earlier on).

2. Did your first major benefit from doing CSC/MTH? How did you benefit or not?

>> Yes, I would say it did benefit because whenever numerical modeling came up in meteorology classes I knew what was going on while everyone else was generally confused (which is why I'm not sure why the curriculum doesn't have more mandatory CSC). The lack of benefit was probably coding in languages which I won't use again (FORTRAN is in my future, so more C probably would have helped although I don't necessarily like C).

3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

>> I definitely benefited because I met a lot more people whom I enjoyed being around and was forced to be even more innovative than usual. I pride myself on being able to think on my feet, and a lot of my coding assignments helped to reinforce this skill. While I am generally lukewarm about my experience at UM, I'd say my involvement w/ the CSC department was probably the best part.

4. Did your peers have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

>> Everyone who heard about my choice was generally positive I suppose. If anything, I think they were jealous that I understood things that they didn't (again, there's such a negative stigma against CSC for some reason in my major - they're going to have to learn it sometime!).

5. Did your advisor for your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did (s)he have?

>> My advisor had a positive opinion I suppose - he's generally not overly emotional about these types of things. I really doubt he would push other people in the same direction for whatever reason, but oh well. My gain.

6. Did your instructors in your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

>> My instructors probably thought it was a good idea seeing that a majority of their work involves coding, but I can't say I received that much feedback.

7. Has your employment/further study benefited from doing CSC/MTH? How has it benefited or not?

>> I was able to work on a few research items that without my CSC background I would have had a MUCH harder time doing, and in the process impressed a few people and probably got better recommendations for graduate school. It was certainly all positive.

8. Would you have started a CSC/MTH major if you had not received a CSMS scholarship? Why or why not?

>> I am going to say I'd still have started my CSC major, but honestly it would have been 50/50 without the scholarship just because it would have been easy to take the minor and the lesser workload during the end of my studies. My last two semesters were very hectic and it would have been nice to have more time for research (if I took easier classes, I'd have less homework, etc.) but I think the experience was still worth it even without the money (though I certainly am grateful for the additional aid it provided me).

9. Now you have finished, would you do a CSC/MTH major if you did not receive a CSMS scholarship? Why or why not?

>> I still think I would have done the major. It's very relevant to my career plans (Ph.D. in Atmospheric Science, emphasis on climate modeling) so I think it was worth my effort.

10. Do you have any ideas how we can encourage more science students to do CSC/MTH, besides offering more scholarships?

>> Mmm, it's tough because I think people just generally assume things like that are difficult and either are talented and will pursue it naturally or dismiss it. I get the feeling that most people who got this scholarship were already in love with programming (or math theorizing) though I could be wrong. I got mixed into the program because my original idea was to get a CSC minor with the credits freed up via Calculus in high school and AP Test credits, so maybe emphasize to students in programming I/II that there's a future to be had with CSC, especially since numerical modeling is really taking off?



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CSMS scholarship

To: geoff@cs.miami.edu

Sun, May 9, 2010 at 12:50 PM

In a message dated 5/5/2010 2:40:20 P.M. Eastern Daylight Time, geoff@cs.miami.edu writes:

Hi [REDACTED],

Congratulations on completing your Computer Science or Mathematics studies, with the support of a CSMS scholarship. In order to help us encourage and guide more students to do Computer Science or Mathematics as a second major, we will be grateful if you will reply to this email with honest answers to the following questions. Your answers will be kept anonymous, will not be used beyond the CSMS project, and will not be linked to your university records, i.e., whether you loved or hated Computer Science/Mathematics, we would like to know the truth! Just insert your answers in between the questions, as a reply to this email. Thanks!

1. Did you enjoy doing CSC/MTH? What aspects did you enjoy or not?

Yes I enjoyed doing CSC/MTH. I enjoyed all the benefits that came with the program such as free tutoring and funding for my education. There really were no aspects that I felt were negative or flawed.

2. Did your first major benefit from doing CSC/MTH? How did you benefit or not?

Yes my biochemistry major benefited from my math major. I was in a better position to study the more quantitative topics in biochemistry such as enzyme kinetics. There are still many more topics that I would like to study such as DNA topology that I can only study with a strong foundation in mathematics. CSC/MTH has helped me gain the knowledge necessary to pursue such fields of study.

3. Did you benefit generally from doing CSC/MTH? How did you benefit or not?

Absolutely. CSC/MTH helped me broaden my knowledge. As a math major, I feel that my courses helped me develop my analytical skills. The more abstract courses, especially, put my reasoning skills to the test. I truly enjoyed all the courses and I am more confident in my abilities to pursue other scientific endeavors.

4. Did your peers have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

My peers felt that I was in the right program. They felt that CSC/MTH was perfect for me because the program supported my education in the two fields that most intrigue me: biochemistry and math.

5. Did your advisor for your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did (s)he have?

My biochemistry advisor also felt that I was in the right program for me. In fact, I first learned of the CSC/MTH program through my advisor. He was the one who actually recommended it to me. We even discussed some of the fields in the biological sciences where my background in math would benefit me.

6. Did your instructors in your first major have any opinion about your doing CSC/MTH? What positive or negative opinions did they have?

Most of my instructors in my first major did not know about me doing CSC/MTH. The only instructor in my first major that knew was my advisor and only had positive opinions about the program.

7. Has your employment/further study benefited from doing CSC/MTH? How has it benefited or not?

My further study involves medicine and I believe it will benefit from my math major. I feel that I am in a better position to contribute to the medical field with my background in math.

8. Would you have started a CSC/MTH major if you had not received a CSMS scholarship? Why or why not?

Yes I would still have started a math major. In fact, I did start a math major before I applied for the CSMS scholarship. I did this out of sheer interest in mathematics. I have always been fascinated by its many applications in various fields. After MTH 230, I became even more fascinated with the more abstract and theoretical fields.

9. Now you have finished, would you do a CSC/MTH major if you did not receive a CSMS scholarship? Why or why not?

Yes, I would have. I have learned so many new things that will benefit me in my future endeavors that I cannot see a reason not to do a math major. Even if my math major did not benefit me in any way in my future pursuits, I would still have done a math major for fun.

10. Do you have any ideas how we can encourage more science students to do CSC/MTH, besides offering more scholarships?

I honestly believe that if students are truly passionate about their first major and CSC/MTH, then they will not need much encouragement. The program will naturally appeal to them. The free tutoring, the informative liaisons, and the opportunity to study their first major and a CSC/MTH major should be encouragement enough. The only suggestion I would have is to try to make information about the program a little more widespread. That way, more students will be aware of the existence of this fantastic program and those who are truly interested in pursuing the double major will naturally apply.

Thanks for your feedback!

Cheers,

Geoff, for the CSMS team

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----- "My cat" is not a float. Every string should learn to swim. -----
