

Korey Sorge

From: Sarah Milton
Sent: Thursday, November 16, 2023 1:55 PM
To: Korey Sorge
Cc: William Brooks; Yuan Wang; Xiao-Dong Zhang
Subject: Re: BS in Math Proposal

Good afternoon Korey - The Department Of Biological Sciences approves your program changes. We will likely gain a few students into the Biology electives from the math track, rather than lose students to the Mathematical Biology program.

Best,
Sarah

Dr. Sarah L. Milton
Professor and Chair
Department of Biological Sciences
FAU

From: Korey Sorge <ksorge@fau.edu>
Sent: Thursday, November 16, 2023 10:18 AM
To: Sarah Milton <smilton@fau.edu>
Cc: William Brooks <wbrooks@fau.edu>; Yuan Wang <YWANG@fau.edu>; Xiao-Dong Zhang <xzhang@fau.edu>
Subject: BS in Math Proposal

Hi Sarah...

I was reaching out to see if the Biology department had any comment on the proposed BS in Math changes. As you know, part of this overhaul was the creation of two courses (MAP 2483 – Mathematics for Biological Sciences 1 and MAP 2484 – Mathematics for Biological Sciences 2) that you have expressed support for in prior emails. These were recently accepted at the last UUPC meeting.

That prior support email did not make a comment about the proposed changes in the ***program***, and this was a sticking point at UUPC.

Math has put a lot of work in to supplement and address the problems that UUPC had with their prior proposal and would like to send it up again. Their most recent proposal is attached, but I can make a few points about it here.

- 3 of the 4 concentrations proposed are essentially very similar to the existing BS program in Math. The concentration in “Mathematical Biology” is likely the only concentration at issue.
- It has some substantial overlap with Biology in coursework, with courses such as
 - PCB 3063 – Genetics,
 - PCB 4043 – Principles of Ecology,
 - IDS 4139 - Artificial Intelligence Applications in Biology,
 - PSB 4810 – Neuro of Learning and Memory, and
 - PCB 4832C – Neurophysiology.

These are not all required, but are listed as a mix of requirements and options in the program.

- It feels like an innovative approach to collecting data for motivating a future degree program. The rest of us in the college may want to see how this plays out for our own cases in the future.

- It was developed with input from external graduate programs and industry to shift credit load from typical course progressions to a more relevant career development.

A support statement from Biology would very helpful in getting this proposal through UUPC. Anything that can be done to expedite the process would likely be much appreciated by Math.

Thanks!

Korey

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Korey D Sorge

Scientist

Florida Atlantic University

Department of Physics

777 Glades Rd

Boca Raton, FL 33431

ksorge@fau.edu

<https://fau.webex.com/meet/ksorge>

Subject: RE: Statistics and Data Sci Concentration

From: Hari Kalva <hkalva@fau.edu>

Date: 10/27/2023, 12:53 PM

To: Yuan Wang <YWANG@fau.edu>

CC: Stephen Locke <lockes@fau.edu>

Hi Yuan, we do not have any objections to the proposed Statistics and Data Science Concentration.

-----Original Message-----

From: Yuan Wang <YWANG@fau.edu>

Sent: Tuesday, October 10, 2023 9:14 AM

To: Hari Kalva <hkalva@fau.edu>

Cc: Stephen Locke <lockes@fau.edu>

Subject: Statistics and Data Sci Concentration

Hello Hari,

We are revising our BS degree in Math, adding concentrations to the program. Here is the proposal for the Statistics and Data Science Concentration. Please let us know if there are questions or concerns.

Thank you very much.

Yuan

Subject: RE: B.S. in Mathematics (BS) – Cryptography Track (draft ver 1)
From: Hari Kalva <hkalva@fau.edu>
Date: 9/14/2023, 10:17 AM
To: Shi Bai <sbai@fau.edu>
CC: Hanqi Zhuang <zhuang@fau.edu>, Yuan Wang <YWANG@fau.edu>

Hi Shi, looks good. We will support your track proposal. In terms of electives, we don't regularly offer.

CIS 4213 Cyber Physical System Security (COP 3530)
CAP 4623 Trustworthy Artificial Intelligence (COP 3014, MAD 2104)

-----Original Message-----

From: Shi Bai <sbai@fau.edu>
Sent: Wednesday, September 13, 2023 2:14 PM
To: Hari Kalva <hkalva@fau.edu>
Cc: Hanqi Zhuang <zhuang@fau.edu>; Yuan Wang <YWANG@fau.edu>
Subject: Re: B.S. in Mathematics (BS) – Cryptography Track (draft ver 1)

Dear Hari, Hanqi,

I hope everything is going well. Thanks for the suggestions/comments on the earlier draft of the cryptography track. We have updated the draft version with some slight changes.

We learned that there is a Python version of the COP2220/COP3014 sequence, but we decided to keep the C version as the student may find them useful in cryptography research/algorithms.

Just a quick summary of the current status, we have 3 "Required" CS courses:

COP 2220. Programming 1
COP 3014. Programming 2
COP 3530. Data Structures and Algorithm Analysis

And 3 "Elective" ones from CS (we gave a list of example courses in the 3rd page of the draft).

We are also planning to develop two new courses as electives for this track:

Cryptography of Blockchain
Post-quantum Cryptography

We are planning to move on and bring this to the senate meetings as soon as we can.

Could you please let us know if you have any comments/suggestions and if EECS could support this effort. Thanks!

Cheers,
Shi

From: Shi Bai <sbai@fau.edu>
Sent: Friday, July 7, 2023 11:33 AM
To: Hanqi Zhuang
Cc: Yuan Wang; Hari Kalva
Subject: Re: B.S. in Mathematics (BS) – Cryptography Track (draft ver 1)

Thanks Hanqi.

OK, we will then replace CAP 4612 by CAP 4770 in the "Elective" course.

Cheers,
Shi

From: Hanqi Zhuang <zhuang@fau.edu>
Sent: Friday, July 7, 2023 11:19 AM
To: Shi Bai
Cc: Yuan Wang; Hari Kalva
Subject: Re: B.S. in Mathematics (BS) – Cryptography Track (draft ver 1)

Dear Shi,

This is a very good program. I think that EECS fully supports this effort. We offer Programming 1, 2 and Data Structures every term. We also offer COP 3540, COP 4045, COT 4420, CDA 4321, CAP 4613, CAP 4630 and COT 4400 regularly. We no longer offer CAP 4612. Instead, we offer regular Data Mining and Machine Learning CAP 4770, which students shall be fine with after taking programming 2 and/or data structures.

Hari may have better idea on other courses in the elective list.

Best,
Hanqi

From: Shi Bai <sbai@fau.edu>
Sent: Friday, July 7, 2023 11:00 AM
To: Hanqi Zhuang <zhuang@fau.edu>
Cc: Yuan Wang <YWANG@fau.edu>
Subject: B.S. in Mathematics (BS) – Cryptography Track (draft ver 1)

Dear Hanqi,

I hope everything is going well. This is Shi Bai from mathematics.

Our department is revising our BS program in Mathematics, to include several tracks/concentrations. The purpose is to make the program more diverse/accessible to the students to improve their graduation rate. One such track is in Cryptography.

Please find the very first draft of the proposal attached. This is just a prelim version, but we hope to communicate with CS at an earlier stage.

In particular, for the CS courses in this track, we have 3 "Required" courses:

COP 2220. Programming 1
COP 3014. Programming 2
COP 3530. Data Structures and Algorithm Analysis

And 3 "Elective" ones from CS. The overall credit for our BS program is 61 credits.

A few questions:

1) we are hoping the above 3 "Required" courses pave a common prerequisite, so the students can choose CS electives more flexibly.

2) we tried to include most course in crypto from CS on Page 3 (Track Electives). Please let us know if anything is missed.

Please also let us know if you have any other comments/suggestions. Thanks!

Cheers,
Shi

Supporting letter from the Department of
Biological Department

Subject: Re: Mathematical Biology concentration in BS Math
From: William Brooks <wbrooks@fau.edu>
Date: 10/13/2023, 8:35 AM
To: Sarah Milton <smilton@fau.edu>, Yuan Wang <YWANG@fau.edu>
CC: Stephen Locke <lockes@fau.edu>, Evonne Rezler <erezler@fau.edu>, William Brooks <wbrooks@fau.edu>

The Biology Undergraduate Programs Committee, along with Sarah, supports these courses!!

Please let us know if you need more formal verification.

W. Randy Brooks, PhD

Professor of Biology

Chair, FAU Biology Undergraduate & MS Graduate Program Committees

Boca Raton, FL 33431, Phone: 561-297-3888, Email: wbrooks@fau.edu

<http://biology.fau.edu/directory/brooks/index.php>

<http://biology.fau.edu/academics/graduate/ms-programs.php>

Sent from my Z Fold 4

From: Sarah Milton
Sent: Friday, October 13, 2023 3:03 AM
To: Yuan Wang
Cc: William Brooks; Stephen Locke; Evonne Rezler
Subject: Re: Mathematical Biology concentration in BS Math

Biology supports these courses for our students. We will need to add them to our curriculum so that they meet our students PoS. Randy?

Sarah Milton

> On Oct 13, 2023, at 12:44 AM, Yuan Wang <YWANG@fau.edu> wrote:

>

> Dear Sarah,

>

> I hope you are doing well. We are now revising our BS program in Math by building in a few concentrations, and one of them is the Mathematical Biology concentration, where two new courses of Mathematics for Biological Sciences 1 and 2 are added to replace the traditional Calculus sequence. Our colleagues Necibe and Francis have had some fruitful discussions with you. Thank you very much for all your suggestions and feedback.

>

> We are now finalizing our proposal of program change. Please see the attached documents in this email. It would be very helpful if we could get a consent from your department. Please let me know if there are any questions or concerns. We'd be happy to address any issues from you.

>

> Many thanks!

> Yuan

> <BioMath-Concentration.pdf>

> <CourseProposal-Bio-Math-One.pdf>

Supporting Letter from Dept of
Curriculum and Instruction, College of
Education on replacing MAA4200 with
MAS 3156

Subject: RE: MAA 4200

From: Robyn Klein <rklein@fau.edu>

Date: 9/14/2023, 10:09 AM

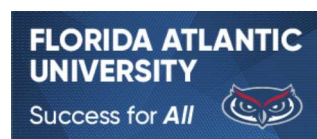
To: Joseph Furner <jfurner@fau.edu>, Stephen Locke <lockes@fau.edu>, Yuan Wang <YWANG@fau.edu>

Good Morning,

Thank you so much for keeping us in the loop. Since MAS 4200 is a required course for our Math Education majors, we can put in the program change to replace that course with MAS 3156.

Thanks again!

Robyn Klein, Ed.D.
Senior Instructor
Director of Undergraduate Programs
Department of Curriculum and Instruction
College of Education
Florida Atlantic University
(561)297-3877
rklein@fau.edu



From: Joseph Furner <jfurner@fau.edu>
Sent: Wednesday, September 13, 2023 8:12 PM
To: Stephen Locke <lockes@fau.edu>; Yuan Wang <YWANG@fau.edu>
Cc: Robyn Klein <rklein@fau.edu>
Subject: RE: MAA 4200

Thank you Stephen for writing and letting us know. I will forward this to Robyn Klein who is in charge of the Secondary Programs in our department so she can make the change and remove that class on the program sheet. Thanks for writing. I do hope all is well. Many blessings! Have a great semester and academic year!

Pax in terra, pax in caelo, pax vobiscum,

Joseph M. Furner

Joseph M. Furner, Ph.D.
Professor of Mathematics Education and Curriculum and Instruction
Florida Atlantic University
College of Education
Department of Curriculum and Instruction
John D. MacArthur Campus
5353 Parkside Drive, EC 207D
Jupiter, Florida 33458



"If two negatives make a positive
how come two wrongs don't
make a right?"



From: Stephen Locke <lockes@fau.edu>
Sent: Wednesday, September 13, 2023 4:25 PM
To: Joseph Furner <jfurner@fau.edu>; Yuan Wang <YWANG@fau.edu>
Subject: MAA 4200

Joe,

We are in the process of renovating our baccalaureate program, and one side effect will be the phasing out of MAA 4200, Modern Analysis. Our students will probably take MAS 3156, Vector Calculus, for most of our concentrations. This course will not have as many proofs as MAA 4200, and is already in place. We ran both MAA 4200 and MAS 3156 in Spring 2023.

I know that students following the BA in Math Education probably take MAA 4200, and thus phasing out MAA 4200 affects your department. We hope this is not too much of a problem. The prerequisites for Vector Calculus are MAC 2313 Calculus 3 with Analytic Geometry and MAS 2103 Matrix Theory, which I assume

your students will already have. So the transition should be easy.

Stephen