## Cover Sheet: Request 12958

## Any UG and MS BIO Combined Degree

## Info

| Process | Degree\|New|Combined|12CR |
| :--- | :--- |
| Status | Pending at PV - Associate Provost for Academic and Faculty Affairs |
| Submitter | Candice Vogtle cvogtle@ufl.edu |
| Created | $8 / 22 / 2018$ 9:04:06 AM |
| Updated | $4 / 12 / 2019$ 12:54:25 PM |
| Description of <br> request | The field of Biostatistics faces a shortage of domestic students. At UF, it could be possible to <br> partly address this problem by encouraging students (domestic or international) from <br> undergraduate programs at UF to complete a bachelors followed by an MS in Biostatistics. |

Actions

| Step | Status | Group | User | Comment | Updated |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Department | Approved | PHHP - Biostatistics 313601001 | Babette Brumback |  | 8/22/2018 |
| BIO Combined MS Supporting Documents.pdf |  |  |  |  | 8/22/2018 |
| College | Approved | PHHP and the College of Medicine, Integrated Programs | Candice Vogtle | Approved on behalf of Dr. Stephanie Hanson. | 8/27/2018 |
| BIO Combined MS Catalog Copy.pdf |  |  |  |  | 8/27/2018 |
| AP for Undergraduate Affairs | Approved | PV - Associate Provost for Undergraduate Affairs | Angela Lindner |  | 9/27/2018 |
| No document changes |  |  |  |  |  |
| AP for Academic and Faculty Affairs | Conditionall Approved | PV - Associate Provost for Academic and Faculty Affairs | Christopher Hass | as per our email discussions, please amend the proposal so that it is "for select majors meeting the prerequisites" instead of any undergraduate majors. | 10/4/2018 |
| No document changes |  |  |  |  |  |
| AP for Undergraduate Affairs | Approved | PV - Associate Provost for Undergraduate Affairs | Angela Lindner |  | 4/12/2019 |
| No document changes |  |  |  |  |  |
| AP for <br> Academic and <br> Faculty Affairs | Pending | PV - Associate Provost for Academic and Faculty Affairs |  |  | 4/12/2019 |
| No document changes |  |  |  |  |  |
| Graduate School Notified |  |  |  |  |  |
| No document changes |  |  |  |  |  |
| University Curriculum Committee Notified |  |  |  |  |  |
| No document cha Office of the Registrar | hanges |  |  |  |  |



## Degree|New|Combined for request 12958

## Info

Request: Any UG and MS BIO Combined Degree
Description of request: The field of Biostatistics faces a shortage of domestic students. At UF, it could be possible to partly address this problem by encouraging students (domestic or international) from undergraduate programs at UF to complete a bachelors followed by an MS in Biostatistics.
Submitter: Candice Vogtle cvogtle@ufl.edu
Created: 11/20/2018 3:22:35 PM
Form version: 3

## Responses

Department Name (Undergraduate Degree Program) Any department meeting the required prerequisites
College Name (Undergraduate Degree Program) Any collegermeeting the required prerequisites Major Name (Undergraduate Degree Program) Any major meeting the required prerequisites Major Code (Undergraduate Degree Program) Any
Department Name (Graduate Degree Program) Biostatistics
College Name (Graduate Degree Program) Public Health and Health Professions
Major Name (Graduate Degree Program) MS in Biostatistics
Major Code (Graduate Degree Program) BIS
Effective Term Earliest Available
Effective Year Earliest Available
Double-Counted Credits 12
Double-counted Credit Justification N/A
Rationale for Proposed Combined Degree Program The field of Biostatistics faces a shortage of domestic students. At UF, it could be possible to partly address this problem by encouraging students (domestic or international) from undergraduate programs at UF to complete a bachelors followed by an MS in Biostatistics. The bachelor's degree could be from any major provided that the listed prerequisites for the MS in Biostatistics program are met. It could be attractive to students to complete a bachelors and MS in 5 years instead of the typical 6 years.

Impacts on Other Programs This could partially impact Statistics and Mathematics as prerequisites from their departments are required for admission into our program. The prerequisites are STA 2023, MAC 2311, MAC 2312, MAC2313 and either MAS 3114 or MAS 4105 . We have emails from each program confirming that they are supportive of our combined degree program. Also, our MS students take an epidemiology course (PHC 6001) and the number of students in that course would increase by the number of students admitted into our program via the combined degree program.

# UF 

## Combined Bachelors/MS Degree Program

The Biostatistics Bachelors/MS program allows qualified students to earn a Bachelor's degree from any degree program at UF and a Master's of Science degree in Biostatistics with 12 credit hours of graduate coursework counting toward both degrees. This allows the Master's degree to be attained within one year (two semesters, 24 credits). The Master's of Science degree in Biostatistics is designed to facilitate students' development of a strong theoretical foundation in biostatistics and of a broadbased understanding of biostatistical methods.

Interested students should meet with the Graduate Coordinator in the Department of Biostatistics before applying. Applications should be processed in the spring semester of the junior year, prior to April 15.

## Requirements

Admission Criteria:
Must have at least junior status
3.2 UF GPA

Minimum combined (verbal + quantitative) GRE score of 300
Completion of 5 prerequisites with a GPA of 3.3 or better: STA 2023, MAC 2311, MAC 2312, MAC 2313, and either MAS 3114 or MAS 4105

## Recommended

Completion of STA 4321 and STA 4322 with a GPA of 3.3 or better
Competitive quantitative GRE score

## More Information

In the senior year, students will take PHC 6050c Biostatistical Methods I, PHC 6051 Biostatistical Methods II, PHC 6092 Introduction to Biostatistical Theory, and PHC 6001 Principles of Epidemiology in Public Health. These four 3-credit courses will be counted towards both the undergraduate and the graduate degrees.

Upon completion of the undergraduate degree portion, students will be able to complete the MS program in two semesters (12 credits each).

Biostatistics: Bachelors/MS
Admission Criteria: Junior status; 3.2 UF GPA; Minimum combined (verbal + quantitative) GRE score of 300; Completion of the following 5 prerequisites with a GPA of 3.3 or better: STA 2023, MAC 2311, MAC 2312, MAC 2313, and either MAS 3114 or MAS 4105.
Contact: 352.294.5926; Email kcason@ufl.edu Overlapping credits: 12
Additional Information

College of Public Health and Health Professions
College of Medicine
Department of Biostatistics

PO Box 117450
Gainesville, FL 32610
352-294-5909
352-294-5931 Fax
www.biostat.ufl.edu

## PHHP Curriculum Committee

December 5, 2016
Dear PHHP Curriculum Committee:
Biostatistics is requesting permission to create a new combined degree program, consisting of any bachelor's degree from UF provided the listed prerequisites are met, and the Biostatistics MS degree. Please see the attached documents. I would be more than happy to address any questions or concerns. Thanks in advance for your time.

Sincerely,


Babette Brumback
Professor and Associate Chair for Education
Department of Biostatistics
College of Public Health and Health Professions
College of Medicine
University of Florida
Gainesville, FL 32611

## LETTERS OF SUPPORT FROM STATISTICS, EPIDEMIOLOGY, and MATHEMATICS

$\qquad$
From: Brett Presnell [presnell@ufl.edu](mailto:presnell@ufl.edu)
Sent: Tuesday, November 29, 2016 5:29 PM
To: BRUMBACK,BABETTE
Cc: Athienitis,Demetris; Qiu,Peihua
Subject: Re: Combined Degree

A few additional students will not be noticeable STA 4321, STA 4322, and especially STA 2023. You should be aware that STA 4321 requires MAC 2313 (Calculus 3) with a C or better as a prerequisite.

BRUMBACK,BABETTE [brumback@PHHP.UFL.EDU](mailto:brumback@PHHP.UFL.EDU) writes:

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> Hi Brett,
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$>$
$>$ I have worked with Stephanie Hanson and she has guided me on how to
$>$ create a combined degree. We are going to create a flexible one,
$>$ which allows any bachelor's degree provided the prerequisites are
$>$ there, and an MS in Biostatistics. We are allowing sharing of exactly
$>12$ credits, which facilitates the approval process. The proposed
$>$ program is summarized in the two attachments. One prerequisite is STA
$>2023$, and then we are recommending STA 4321 and 4322. We are not
> allowed to propose prerequisites that are not already in place for our
$>$ regular MS. We expect a maximum of 1-2 students per year will pursue
$>$ the combined degree. This would mean that the excess burden for you in 2023, 4321, and
4322 would
be very slight. But Stephanie said we'll need an email from you stating that this is okay with
you.
$>$
$>$ l'd be happy to answer any questions or address concerns.
$>$
> Many thanks,
$>$
> Babette
$>$
$>$
$>$
> Babette Brumback
$>$
> Professor and Associate Chair
$>$
> Department of Biostatistics
$>$
> PO Box 117450
$>$
> University of Florida
$>$
> Gainesville, FL 32611
$>$
> Office: 5244 CTRB
$>$
> Phone: 352-294-5909
$>$
> Fax: 352-294-5931
$>$
> brumback@ufl.edu


From: Cottler, Linda B
Sent: Sunday, December 04, 2016 10:26 PM
To: BRUMBACK,BABETTE
Subject: RE: Biostatistics Combined Degree program
We are okay with this. thanks for asking.
Linda B. Cottler, PhD, MPH
Associate Dean for Research
College of Public Health and Health Professions
Dean's Professor and Chair-Department of Epidemiology
College of Public Health and Health Professions and
College of Medicine
University of Florida
2004 Mowry Drive
PO Box 100231
Gainesville, FL 32611
352-273-5468
epidemiology.phhp.ufl.edu
@LCottler
The Department is recruiting! For more information, please email me.

From: BRUMBACK,BABETTE
Sent: Tuesday, November 29, 2016 11:08 AM
To: Cottler, Linda B
Subject: Biostatistics Combined Degree program
Hi Linda,
Biostatistics would like to create a new combined degree, for students from UF with any bachelor's degree provided they have the prerequisites (see attached), and our MS program. The program is summarized in the attachments. As part of the combined degree, students will be taking PHC 6001
Principles of Epi in their senior year. We anticipate fewer than 1-2 students a year in the combined
degree program, and so the extra burden on PHC 6001 would be slight. Plus they would probably be
taking it online. Stephanie Hanson said we will need an email from you indicating that this would be
okay, if in fact it is okay.
I'd be happy to answer any questions or address concerns.
Many thanks,
Babette
Babette Brumback
Professor and Associate Chair
Department of Biostatistics
PO Box 117450
University of Florida
Gainesville, FL 32611
Office: 5244 CTRB
Phone: 352-294-5909
Fax: 352-294-5931
brumback@ufl.edu

MATHEMATICS
From: Knudson,Kevin P
Sent: Monday, December 05, 2016 11:33 AM
To: BRUMBACK,BABETTE; Cenzer,Douglas A
Subject: RE: Biostatistics combined degree program
Sure, that's fine. I was just curious if you really wanted the more theoretical version. Sounds like you do,
though.
k
From: BRUMBACK,BABETTE
Sent: Monday, December 05, 2016 11:28 AM
To: Knudson,Kevin P ; Cenzer,Douglas A
Subject: RE: Biostatistics combined degree program
Dear Kevin,
Many thanks for your email. I think we would prefer the students to have MAS4105, but that we would
accept MAS 3114 for the MS degree (but ideally not for the PhD degree). Would it be okay with you if
we kept the prerequisites as they are and then maybe bent them for excellent applicants who have MAS
3114 instead of 4105?
Our MS degree involves understanding and making mathematical arguments, and linear algebra
underlies a lot of statistics. That's why we would ideally like the theoretical version.

Best wishes,
Babette
Babette Brumback
Professor and Associate Chair
Department of Biostatistics
PO Box 117450
University of Florida
Gainesville, FL 32611
Office: 5244 CTRB
Phone: 352-294-5909
Fax: 352-294-5931
brumback@ufl.edu
From: Knudson, Kevin P
Sent: Monday, December 05, 2016 10:59 AM
To: BRUMBACK,BABETTE; Cenzer,Douglas A
Subject: RE: Biostatistics combined degree program
Dear Babette,
Sorry for not responding to this last week. This looks fine to us, but I do have one question: is MAS4105
really the linear algebra course you want to require, or would MAS 3114, Computational Linear Algebra,
be sufficient? We are ok with either, of course, but we have a bit more slack in MAS 3114.
Best,
Kevin

## From: BRUMBACK,BABETTE

Sent: Monday, December 05, 2016 9:44 AM
To: Cenzer,Douglas A [cenzer@ufl.edu](mailto:cenzer@ufl.edu); Knudson,Kevin P [kknudson@ufl.edu](mailto:kknudson@ufl.edu)
Subject: Biostatistics combined degree program
Dear Drs. Knudson and Cenzer:
Biostatistics would like to create a new combined degree program, for any bachelor's degree with
prerequisites as in the attached documents, and our Biostatistics MS. The proposed program is summarized in the two attachments. Four of our prerequisites are MAC 2311, MAC 2312, MAC 2313, and MAS 4105. We expect a maximum of 1-2 students per year in the combined
degree program. Therefore the additional burden in your classes is expected to be really low. Nevertheless, our Associate Dean has advised that we'll need an email from you stating that this is okay,
if in fact it is okay.
I'd be happy to answer any questions or address concerns, by email or phone.
Many thanks,
Babette

Babette Brumback
Professor and Associate Chair
Department of Biostatistics
PO Box 117450
University of Florida
Gainesville, FL 32611
Office: 5244 CTRB
Phone: 352-294-5909
Fax: 352-294-5931
brumback@ufl.edu
From: BRUMBACK,BABETTE
Sent: Tuesday, November 29, 2016 11:05 AM
To: Knudson, Kevin P
Subject: Biostatistics combined degree program
Dear Dr. Knudson,
Biostatistics would like to create a new combined degree program, for any bachelor's degree with
prerequisites as in the attached documents, and our Biostatistics MS. The proposed program is summarized in the two attachments. Four of our prerequisites are MAC 2311, MAC
2312, MAC 2313, and MAS 4105. We expect a maximum of 1-2 students per year in the combined
degree program. Therefore the additional burden in your classes is expected to be really low. Nevertheless, our Associate Dean has advised that we'll need an email from you stating that this is okay.
I'd be happy to answer any questions or address concerns, by email or phone.
Many thanks,
Babette
Babette Brumback
Professor and Associate Chair
Department of Biostatistics
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University of Florida
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