

Program Change Request

Date Submitted: 04/20/18 4:08 pm

Viewing: **SC-CERG-PRSM : Personalized Medicine Graduate Certificate**

Last approved: 11/16/17 5:18 pm

Last edit: 04/20/18 4:08 pm

Changes proposed by: jbazaz

Catalog Pages
Using this Program

[Personalized Medicine Graduate Certificate](#)

In Workflow

1. Registrar-Programs:Workflow Review
2. SSB Program Chair
3. SC Curriculum Committee
4. SC Associate Dean
5. SC CAT Editor
6. Assoc Provost-Graduate
7. Registrar-Programs

Are you completing this form on someone else's behalf?

Yes

Requestor:

Name	Extension	Email
Ancha Baranova	571-334-1145	abaranov@gmu.edu

Effective Catalog: 2019-2020

Program Level: Graduate

Program Type: Certificate

Degree Type: Graduate Certificate

Title: Personalized Medicine Graduate Certificate

Registrar/OAPI Use Only – SCHEV Status: Approved

Registrar’s Office Use Only – Program Start Term

Registrar/OAPI Use Only – SCHEV Letter

Concentration(s):

Registrar/IRR Use Only – Concentration CIP Code

College/School: College of Science

Department / Academic Unit: School of Systems Biology

Jointly Owned Program?: No

Justification: **Two (2) courses to be added to the Core course selection list; one (1) course removed from the Electives course list since it is no longer offered; five (5) courses added to the electives list.**

Approval Path

1. 04/23/18 9:24 am
Rebekah Zacharias (rzachari): Approved for Registrar-Programs:Workflow Review
2. 04/23/18 7:50 pm
Iosif Vaisman (ivaisman): Approved for SSB Program Chair

History

1. Nov 16, 2017 by clmig-jwehrheim

Catalog Published Information

Total Credits Total credits: 15

Required:

Registrar's Office Use Only - Program Code:

SC-CERG-PRSM

**Registrar/IRR Use
Only – Program CIP
Code**

**Admission
Requirements:**

Admissions

University-wide admissions policies can be found in the [Graduate Admissions Policies](#) section of this catalog.

To apply for this program, please complete the [George Mason University Admissions Application](#).

Prospective students should hold an undergraduate GPA of 3.00 or current employment in clinical or translational research, diagnostics lab, or biological data analysis field.

To be considered for admission, applicants must submit the [George Mason University Admissions Application](#), all undergraduate transcript(s), three letters of recommendation, a statement of interest, and GRE general scores or MCAT scores.

**Program-Specific
Policies:**

Policies

Students may not enroll initially in any College of Science master's or doctoral program and later transfer into this certificate program.

For policies governing all graduate programs, see [AP.6 Graduate Policies](#).

Premium Tuition

This certificate charges students a differential tuition rate of \$100 per credit hour, which is added to the standard graduate tuition rate (regardless of in or out of state status).

Degree Requirements:

This certificate may be pursued on a full-or part-time basis.

Students should refer to the [Admissions & Policies](#) tab for specific policies related to this program.

Required Core Courses

Code	Course List Title	Credits
Select 9 credits from the following:		9
BIOL 562	Personalized Medicine	
BIOL 566	Cancer Genomics	
BIOL 572	Human Genetics	
or BIOL 666	Human Genetics Concepts for Health Care	
BIOL 685	Emerging Infectious Diseases	
BIOS 743	Genomics, Proteomics, and Bioinformatics	
Total Credits		9

Electives

Code	Course List Title	Credits
Select 6 credits from the following:		6
BIOL 506	Selected Topics in Microbiology	
BIOL 508	Selected Topics in Animal Biology	

Code	Title	Credits
BIOL 553	Advanced Topics in Immunology	
BIOL 566	Cancer Genomics	
BIOL 568	Advanced Topics in Molecular Genetics	
BIOL 575	Selected Topics in Genetics	
BIOL 583	General Biochemistry	
BIOL 669	Pathogenic Microbiology	
BIOL 682	Advanced Eukaryotic Cell Biology	
BIOL 685	Emerging Infectious Diseases	
BIOL 691	Current Topics in Biology 1	
BIOL 695	Seminar in Molecular, Microbial, and Cellular Biology	
BIOS 701	Systems Biology	
BIOS 741	Genomics	
BINF 630	Bioinformatics Methods	
BINF 633	Molecular Biotechnology	
BINF 733	Gene Expression Analysis	

Up to 4 credits of [BIOL 693](#) and/or [BINF 796](#). 1

Total Credits

6

1Credit for these courses may only be applied toward the certificate's electives if the research topic is relevant to personalized or translational medicine.

Plan of Study:

Additional Program Information

This information is required by the Office of Accreditation and Program Integrity.

Courses offered via distance (if applicable):

Indicate whether students are able to pursue on a: Both Full and Part-time basis

What is the primary delivery format for the program? **Face-to-Face Only**

Does any portion of this program occur off-campus? **No**

Are you working with a vendor / other collaborators to offer your program? **No**

Related Departments

Could this program prepare students for any type of professional licensure, in Virginia or elsewhere? **No**

Are you adding or removing a licensure component? **No**

Additional SCHEV & SACSCOC Information

Are you changing the total number of credits required for this program?

Are you changing the delivery format in any way (e.g adding an online option)?

Are you adding/removing a licensure option which was approved by SCHEV?

Will any portion of this program be offered at an off-campus location?

Are you adding significant new content areas to the program?

Will this program change affect any specialized accreditation?

Green Leaf Program Designation

Is this a Green Leaf program? No

Does this program cover material which crosses into another department?

No

Additional Attachments

Reviewer Comments

Additional Comments

Key: 415



Program Approval Form

For approval of new programs and deletions or modifications to an existing program.

Action Requested:

Create New (SCHEV approval required except for minors)

Inactivate Existing

Modify Existing (check **ALL** that apply)

Title (SCHEV approval required except for minors)

Concentration (Choose one): Add Delete Modify

Degree Requirements

Admission Standards/ Application Requirements

Other Changes: _____

Type (Check one):

B.A. B.S. Minor

Master's

Ph.D.

Undergraduate Certificate*

Graduate Certificate*

Bachelor's/Accelerated

Master's Other: _____

College/School: Department:

Submitted by: Ext: Email:

Effective Term: Fall **Please note:** For students to be admitted to a new degree, minor, certificate or concentration, the program must be fully approved, entered into Banner, and published in the University Catalog.

Justification: (attach separate document if necessary)

Program Title: (Required)

Title must identify subject matter. Do not include name of college/school/dept.

Concentration(s):

Admissions Standards / Application Requirements:

(Required only if different from those listed in the University Catalog)

Degree Requirements:

Consult University Catalog for models, attach separate document if necessary using track changes for modifications

Courses offered via distance:

(if applicable)

TOTAL CREDITS REQUIRED:

Existing	New/Modified
Personalized Medicine Graduate Certificate	
	See attached sheet for proposed modifications

*For Certificates Only: Indicate whether students are able to pursue on a Full-time basis Part-time basis

Approval Signatures

Department	Date	College/School	Date	Provost's Office	Date
<i>I Vaisman</i>	04-02-18	Iosif Vaisman		Required for Minors and Interdisciplinary Programs	

If this program may impact another unit or is in collaboration with another unit at Mason, the originating department must circulate this proposal for review by those units and obtain the necessary signatures prior to submission. Failure to do so will delay action on this proposal.

Unit Name	Unit Approval Name	Unit Approver's Signature	Date

For Undergraduate Programs only

Undergraduate Council Member _____ Provost Office _____ Undergraduate Council Approval Date _____

For Graduate Programs Only

Graduate Council Member _____ Provost Office _____ Graduate Council Approval Date _____

Program Proposal Submitted to the College of Science Curriculum Committee (COSCC)

The form above is processed by the Office of the University Registrar. This second page is for the COSCC's reference. Please complete the applicable portions of this page to clearly communicate what the form above is requesting.

FOR ALL PROGRAMS (required)

Program Title: **Personalized Medicine Graduate Certificate**

Date of Departmental Approval: **April 2, 2018**

FOR INACTIVATED PROGRAMS (required if inactivating a program)

- Reason for Inactivation:

FOR MODIFIED PROGRAMS (required if modifying a program)

- **Summary of the Modification:** Two (2) courses to be added to the Core course selection list; one (1) course removed from the Electives course list since it is no longer offered; five (5) courses added to the electives list
- **Text before Modification (title, degree requirements, etc.):**

Required Core Courses

Code	Course List Title	Credits
BIOL 562	Personalized Medicine	3
BIOL 572	Human Genetics	3
or BIOL 666	Human Genetics Concepts for Health Care	
BIOS 743	Genomics, Proteomics, and Bioinformatics	3
Total Credits		9

Electives:

Code	Course List Title	Credits
Select 6 credits from any of these electives:		6
BIOL 553	Advanced Topics in Immunology	
BIOL 566	Cancer Genomics	
BIOL 568	Advanced Topics in Molecular Genetics	
BIOL 575	Selected Topics in Genetics	
BIOL 669	Pathogenic Microbiology	
BIOL 682	Advanced Eukaryotic Cell Biology	
BIOL 695	Seminar in Molecular, Microbial, and Cellular Biology	
BIOS 701	Systems Biology	
BIOS 741	Genomics	
BINF 630	Bioinformatics Methods	
BINF 633	Molecular Biotechnology	
BINF 733	Gene Expression Analysis	
Up to 4 credits of BIOL 693 and/or BINF 796 . ¹		
Total Credits		6

¹ Credit for these courses may only be applied toward the certificate's elective courses if the research topic is relevant to personalized or translational medicine.

- **Text after Modification (title, degree requirements, etc.):**

Required Core Courses

Select 9 credits (3 courses) from any of the following:

Course List		
Code	Title	Credits
BIOL 562	Personalized Medicine	3
BIOL 566	Cancer Genomics	3 added
BIOL 572	Human Genetics	3
or BIOL 666	Human Genetics Concepts for Health Care	
BIOS 743	Genomics, Proteomics, and Bioinformatics	3
BIOL 685	Emerging Infectious Diseases	3 added
Total Credits		9

Electives:

Course List

Code	Title	Credits
Select 6 credits from any of these electives:		
BIOL 506	Selected Topics in Microbiology ¹	added
BIOL 508	Selected Topics in Animal Biology ¹	added
BIOL 553	Advanced Topics in Immunology	
BIOL 566	Cancer Genomics	
BIOL 568	Advanced Topics in Molecular Genetics	
BIOL 575	Selected Topics in Genetics	
BIOL 583	Biochemistry	added
BIOL 669	Pathogenic Microbiology	
BIOL 682	Advanced Eukaryotic Cell Biology	
BIOL 685	Emerging Infectious Diseases	added
BIOL 691	Current Topics in Biology ¹	added
BIOL 695	Seminar in Molecular, Microbial, and Cellular Biology	
BIOS 701	Systems Biology	
BIOS 741	Genomics	
BINF 630	Bioinformatics Methods	
BINF 633	Molecular Biotechnology	
BINF 733	Gene Expression Analysis	removed
Up to 4 credits of BIOL 693 and/or BINF 796 . ¹		
Total Credits		6

¹ Credit for these courses may only be applied toward the certificate's elective courses if the topic is relevant to personalized or translational medicine.

- **Reason for the Modification:**

The additional core courses were added to allow Certificate students admitted in fall semesters to be able to complete the program within 2 semesters (15 credits). In the current program two required core courses are only offered in alternating spring semesters – BIOL 562 and BIOS 743.

The elective courses added are to allow students to choose from a wider variety of courses that are offered under “topics” that are relevant to their fields of study.

FOR NEW PROGRAMS (required if creating a new program)

- Reason for the New Program:
 - Relationship to Existing Programs:
 - Relationship to Existing Courses:
 - Semester of Initial Offering:
 - Insert Tentative SCHEV Proposal Below
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