Course Approval Form

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

Action Requested:

- [ ] Create new course
- [ ] Inactivate existing course
- [x] Modify existing course (check all that apply)
  - [x] Title
  - [ ] Credits
  - [ ] Repeat Status
  - [ ] Grade Type
  - [ ] Prereq/coreq
  - [ ] Schedule Type
  - [ ] Restrictions
  - [x] Other: Course description

Course Level:

- [ ] Undergraduate
- [x] Graduate

College/School: College of Science
Department: School of Systems Biology
Submitted by: Diane St. Germain
Ext: 3-4263
Email: dstgerma@gmu.edu

Subject Code: BINF
Number: 701
(Do not list multiple codes or numbers. Each course proposal must have a separate form.)

Effective Term:

- [x] Fall
- [ ] Spring
- [ ] Summer

Year 2014

Title:
Current: Biochemical Systematics
Banner (30 characters max including spaces):
New: Systems Biology

Credits: (check one)

- [x] Fixed — or 3
- [ ] Variable — T o

Repeat Status: (check one)

- [x] Not Repeatable (NR)
- [ ] Repeatable within degree (RD)
- [ ] Repeatable within term (RT)

Maximum credits allowed: 3

Grade Mode: (check one)

- [x] Regular (A, B, C, etc.)
- [ ] Satisfactory/No Credit
- [ ] Special (A, B C, etc. +IP)

Schedule Type: (check one) LEC can include LAB or RCT

- [x] Lecture (LEC)
- [ ] Lab (LAB)
- [ ] Recitation (RCT)
- [ ] Internship (INT)
- [ ] Independent Study (IND)
- [ ] Seminar (SEM)
- [ ] Studio (STU)

Prerequisite(s):
No changes

Corequisite(s):
No changes

Instructional Mode:

- [x] 100% face-to-face
- [ ] Hybrid: ≤ 50% electronically delivered
- [ ] 100% electronically delivered

Restrictions Enforced by System: Major, College, Degree, Program, etc. Include Code.
n/a

Are there equivalent course(s)?

- [ ] Yes
- [x] No

If yes, please list

Catalog Copy for NEW Courses Only (Consult University Catalog for models)

Description (No more than 60 words, use verb phrases and present tense)	**Notes** (List additional information for the course)

Indicate number of contact hours: Hours of Lecture or Seminar per week: ____ Hours of Lab or Studio: ____

When Offered: (check all that apply) ☐ Fall ☐ Summer ☐ Spring

Approval Signatures

Department Approval — Date

College/School Approval — Date

If this course includes subject matter currently dealt with by any other units, 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 Graduate Courses Only

Graduate Council Member — Provost Office — Graduate Council Approval Date

For Registrar Office's Use Only: Banner_____Catalog_____

revised 11/8/11

Justification for course modification

The current title and description:

BINF 701 - Biochemical Systematics (Biochemistry) Core for Doctoral Studies in Biosciences and Bioinformatics. Credits: 3. Introduction to biochemical systems to investigate complex, multicomponent, dynamic functions of cellular systems. Such studies employ myriad conceptual and technical approaches in their application. Articles from current literature are basis of course offering. The cell's structure and function are the underlying questions of course.

The new title and description:

BINF 701 – Systems Biology. Credits: 3. Systems biology seeks to understand how a complex biological system functions. This involves the use of computational methods and models to integrate information obtained about these systems through a wide range of methods that span multiple spatial and temporal scales. Current research examples will be used to motivate and demonstrate these approaches.

Rationale: The proposed modifications provide more accurate and up-to-date description of the course content in the context of recent rapid advances in Life Sciences and the development of new field of Systems Biology. These modifications do not affect the course content and consequently its syllabus.