

Form 802, new co-terminal BS MS program, sections **BS-Biochemistry/ MS Biology for the Health Professions.**

CIP codes

26.0101, Biology/Biological Sciences, General.
26.0210, Biochemistry and Molecular Biology

Undergraduate Program

Total undergraduate program Credit hours

128

Program Descriptions

The program contains coursework in Biology, as well as content from the other sciences and mathematics that is required to support the program purpose. A core of required classes in these areas is required, and there are various technical electives that allow students to tailor to the degree to suit their career aims and interests. It also contains coursework to satisfy IIT general education requirements.

Program purpose

The objectives of the BS Biology program are to:

- Provide a basic understanding of biology
- Prepare students for
 - Careers in the life sciences
 - Entry into the graduate and professional schools in the life sciences and allied health professions.

Program benefits

This will provide students who are decent students but for one reason or another are not quite competitive for medical or other professional school additional education and training, and an additional year to get prepared.

Course requirements

See attachments

Sample curriculum

See attachments

Competitive programs

There are a number of master type programs that are available to students with BS who did not get into medical school and give them additional high-level coursework to help prepare them for a second attempt. Generally these are 1 year programs that are affiliated with medical schools (e.g. [Rosalind Franklin University's Biomedical Sciences \(MS\) program](#)). In fact our MS-Health Profession degree is a direct competitor to such programs - with the disadvantage that we are not so affiliated and our MS program are not designed to be completed in one year. However, for this co-terminal program the one

extra year timetable does make us more competitive, and since this targets our own existing students in that position (i.e. those needing extra year to be competitive med-school applicants) who can stay here, there is low barrier to transition, making this option very attractive.

Market analysis

Marketing and Advertising

This program only accepts existing IIT students, so they will simply be made aware of it in advising.

Enrollment estimates

We enroll ~10-15 students per year who are declared premeds. About half of these will not make it to med school on a 4 year track, and perhaps half of those will be good candidates for, and interested in, this program. This is 2-4 per year. With modest growth, this could realistically double within a few years, but we have not assumed such growth in the analysis below.

Retention estimates

Students who enroll are good students (GPA>3) and are expected to complete this program.

Economic analysis

This program does not cost anything, since it required NO additional resources, relying on existing BS and MS programs for all coursework etc. As such even with modest enrollments it is revenue-positive

In the required spreadsheet, tuition has been based on 3 students at the UG tuition rate at a 40% discount rate (FY2017, $\$43500 * 3 * 0.4 = \52000 , and with 4% annual increases).

Program Name - Economic Analysis							
Estimate of Expense		Academic Year 1		Academic Year 2		Academic Year 3	
Faculty		number	\$ amount	number	\$ amount	number	\$ amount
	full-time		\$0		\$0		\$0
	Part-time		\$0		\$0		\$0
Staff			\$0		\$0		\$0
Course development			\$0		\$0		\$0
Market Survey			\$0		\$0		\$0
Advertizing			\$0		\$0		\$0
Miscellaneous			\$0		\$0		\$0
Total			\$0		\$0		\$0
Notes							
Revenues*			\$52,200		\$54,288		\$56,460
Estimate of Profit			\$52,200		\$54,288		\$56,460
*Revenues are based on tuition income.							

Graduate Program

1) Program overview

a) Objectives

The objectives of the MS-Health Professions program are to:

- Deliver a graduate level understanding of biology as applied to the biomedical field
- Prepare students for entry into the health sciences field, including medical and other life sciences professional schools.

2) Program justification

a) Why the program is needed

We have some students who are decent students but do not make it into medical school for one reason or another. With additional effort, they could become competitive applicants, and we can deliver this education in the MS-health professions program. By integration these into a co-terminal we make this more feasible, and so may both better serve these students, and capture some of the market.

b) Relationship to other programs

This combines two existing programs, a BS and an MS

c) Estimated student numbers

~3 per year. It seem that with modest effort his could easily double in the near term

3) Program resources

a) Personnel needed

None

b) Facilities needed

None

4) Program description

a) Degree requirements

1. *Minimum credit hours*

32

2. *Thesis requirement*

No

3. *Project course*

No

4. *Project report*

No

5. *Comprehensive exam*

Yes – Biology MS program profex

6. *Thesis defense*

No

7. *Required courses*

BIOL402, 515, 526, 527, 530, 542, 544, 595 (22 ch)

8. *Elective options*

10 ch of electives are required, of which 4 or more must be at the 500 level or above, and 6 at the 400 level or above

Any BIOL class is eligible, with the proviso that BIO595 may only be taken one additional time

b) *Admission criteria*

GPA > 3.0

c) *Timeline*

Students are eligible to apply for admission after having completed 60 ch at the undergraduate level. This is generally in the first semester of third year. They are generally admitted in the second semester of third year. This program is designed to be completed in 5 years.

5) *Shared courses*

a) *Required*

BIOL402, BIOL544, BIOL530

b) *Electives*

None

c) *Substitutions, exceptions and restrictions*

Substitutions must be approved by both the co-terminal program advisor and the chief health profession advisor.