Graduate School
UNIVERSITY OF COLORADO
DENVER | ANSCHUTZ MEDICAL CAMPUS

Master’s Program in
BIOMEDICAL SCIENCES & BIOTECHNOLOGY

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CURRICULUM OVERVIEW AND RECOMMENDED COURSE FLOW

  BSBT- General (BSBT- GEN)

  BSBT- Microbiology & Immunology (BSBT- MIM)

  BSBT- Bioinformatics in Microbiology & Immunology (BSBT- MIB)

  BSBT- Structural Biology and Biochemistry (BSBT- SBB)
Master’s Program in Biomedical Sciences and Biotechnology

INTRODUCTION AND GENERAL INFORMATION

Student Handbook
The purpose of the BSBT Student Handbook is to acquaint students with the policies and procedures of the Graduate School at the University of Colorado Denver|Anschutz Medical Campus and to provide resources and guidance for students in pursuit of a Master of Science degree in Biomedical Sciences & Biotechnology. Students are required to read the contents of the Handbook carefully and to send to the Program Administrator by the latest on the first day of classes an email confirming that they have done so. The policies, procedures, and guidelines contained in this Handbook are subject to change and may be affected by policy changes within the University of Colorado Denver|Anschutz Medical Campus or Graduate School.

Program Features and Goals:
As of Fall 2019, the Biomedical Sciences and Biotechnology Program Master’s Program has three program plans: The Professional Sciences Master’s Program, BSBT-GENERAL; a Microbiology and Structural Biology research plan, BSBT-MIM; and a Structural Biology research plan, BSBT-SBB. As of Fall 2020 an additional research plan, i.e. Bioinformatics in immunology and Microbiology (MIB) has become available. Only the BSBT-GENERAL Program is recognized by the National Professional Science Master's Association as a Professional Sciences Master’s Program. To earn this recognition, programs must demonstrate a) that the majority of their courses are STEM courses, b) that the program requires participation in Plus-Courses, i.e. courses that are related to science, but not science courses themselves (for example courses on regulatory affairs or bio-entrepreneurship) c) that they have an advisory board with members from industry and d) that they require as a capstone an experimental learning experience, such as an internship. The internship can be pursued in various settings, including academic research in a variety of disciplines, research in biotech companies to regulatory affairs, intellectual property protection and more. The BSBT-MIM, BSBT-SBB and BSBT-MIB program plans are research focused and require extensive research in these very disciplines.

All four BSBT program plans provide a strong preparation for jobs in industry and can also serve as valuable stepping-stones for entering a Biomedical Sciences PhD Program or Professional Programs such as Medical School, Dental School or a School of Pharmacy.
Program Administration:

Program Director:  Inge Wefes, PhD
Inge.Wefes@cuanschutz.edu
(303) 724-7368

Program Administrator: Patricia Goggans
Patricia.Goggans@cuanschutz.edu
(303) 724-5878

Dr. Wefes and Patricia Goggans have oversight about all program plans, but will on a daily basis be primarily engaged with BSBT-GENERAL.

Associate Program Director (BSBT-MIM): Kelly Doran, PhD
Kelly.Doran@cuanschutz.edu
(303) 724-3539

Program Administrator: –TBD
Patricia Goggans
patricia.goggans@cuanschutz.edu
(303) 724 5878

Associate Program Director (BSBT-SBB): Mair Churchill, PhD
Mair.churchill@cuanschutz.edu
(303) 724-3670

Program Administrators: Patricia Goggans and Maia Evans
Maia.Evans@cuanschutz.edu
(303) 724-3102

Associate Program Director (BSBT-MIB): Laurent Gapin, PhD
Laurent.Gapin@cuanschutz.edu
(303) 724-8667

Program Administrators: Patricia Goggans
Patricia.Goggans@cuanschutz.edu
(303) 724 5878

The curricula of the four BSBT Program Plans are posted at the end of this document.
BSBT DEGREE REQUIREMENTS

Credit Hour Requirements

All BSBT program plans require 38 credits for graduation. The successful completion of a course is defined as a letter grade of 'B-' or better, However, an overall GPA of 3.0 will have to be maintained each semester for a student to be in good academic standing. Depending on a student's background, significant additional study time outside the classroom should be allotted for each course. Students who do not achieve a GPA of 3.0 after the required number of credits have been earned will have to enroll in additional courses to raise their GPAs to the required level for graduation.

Course Loads and Expectations

The BSBT GENERAL Program allows full-time and part-time enrollment. For the MIM and SBB program plans, students are expected to discuss with the Associate Program Directors how the expected research engagement can be coordinated with other work commitments. To remain eligible for financial aid, enrollment for a minimum of five (5) credits in the Fall and Spring semesters is required. Before registering for classes each term, it is strongly recommended that students confirm their enrollment plans with the Program Director/Associate Program Directors. This way, they can also learn about additional opportunities that might be valuable for their career plans, but that have not yet been officially published. In addition, the BSBT Programs requires that students attend the semester program meetings and meet at least once per semester with the Program Director to discuss their career aspirations and the best path to reach these goals. Individual program plans will communicate with their students directly.

TRANSFER AND RESIDENT CREDITS:

Transfer Credits are defined as credit earned at another accredited institution, (not any of the three sister universities of the University of Colorado) either in the United States or abroad. Resident Credits are credits earned as a non-degree student within the University of Colorado System (Boulder, Colorado Springs or Denver |Anschutz). With approval of the BSBT Program Director or Associate Directors, a maximum of 12 credits or 40% of the total required grades for graduation can be transferred or adopted into a new graduate program, provided these credits have not been used before for the completion of another program. Not all resident courses will be accepted to the program, and students are always encouraged to discuss with the Program Director the kind of courses and the maximum number of credits that can be transferred.

Transfer and Resident Course Requirements:

All courses accepted for transfer/adoption must:

- Be graduate level (5000 and above)
- Have a letter grade courses in which the grading is either satisfactory/unsatisfactory or pass/fail are not accepted
- Have a grade of “B” or better
- Have been completed at an accredited college or university
- Be reviewed, evaluated, and approved by the Program Director or Associate
Directors

- Be transferred prior to the semester of graduation
- All courses accepted for transfer or resident course adoption may not have been credited for graduation in any undergraduate or graduate degree program master’s degree.
- Once a student has matriculated for any BSBT program plan, the student may not complete coursework at a different institution to be transferred and applied toward BSBT degree requirements.
- Credit cannot be transferred until the student has established a satisfactory record of at least one term of enrollment at CU Denver and earned a minimum GPA of 3.0.
- To process the transfer or adoption of credits, the student must download and complete the Request for Transfer of Credit From on the Graduate School Student Resources page, and submit the form and the syllabus of the transfer or resident courses to the Program Administrator. The Program Director will evaluate the course regarding its compatibility with the mission and goals of the degree requirements of the BSBT Program and approve the transfer or adoption of the credits.

GRADUATION

Time Requirements for the BSBT Degree
BSBT Master’s students, whether enrolled full time or part time, have five years from matriculation (the start of coursework) to complete all degree requirements, including the completion of the internship/research experience. For students who fail to complete the program requirements the program Director might suggest to the Graduate Schools the student’s suspension from the program. Students are strongly encouraged to discuss with the Program Director/ Associate Director early if they foresee any needs for a time extension.

Course and Grade Requirements for Graduation
To satisfy graduation requirements, all courses must have been passed with a grade of “B-“ or better. A cumulative grade point average of 3.0 or higher is required for graduation.

Course Evaluations
Students are required to complete course evaluations on time and without persistent encouragement by the faculty.

Graduation Procedures
Students who wish to earn a Master’s degree must first be approved as candidates. As soon as a student submits to the Program Administrator a Request for Examination Form related the internship or thesis presentation, the student also has to submit to the Program Administrator an Application for Admission to Candidacy and to the Registrar’s Office an Application for Graduation. Deadlines for all graduation requirements as well as all forms are located on the Graduate School’s Student Resources page. http://www.ucdenver.edu/academics/colleges/Graduate-
The Program Director/Associate Program Directors must approve all documents before they are submitted to the Graduate School for final approval. An approved application certifies that a student’s work is satisfactory, that the courses listed in the Application for Candidacy meet the requirements of both the BSBT Program and the Graduate School, and that the student is approved as a candidate for the degree. The Program Administrator is available to assist students with these documents and requirements.

Graduation Dates and Commencement
There are three graduation opportunities each calendar year, i.e. upon the completion of the Spring semester, the Summer semester or the Fall semester. Please refer to the Graduate School's Student Services website for exact deadlines and graduation application materials. BSBT graduates are invited to participate in the Graduate School Commencement, which is held at the completion of each Fall and Spring semester.

BSBT ACADEMIC POLICIES

General Rules
Courses are graded along the following letter-grades A, A-, B+, B, B-, C+, C, C-, D+, D, D-, or F. A grade of “B-” or higher is required for successful completion of each course. To maintain satisfactory academic progress, advance to candidacy and earn a graduate degree, students are required to maintain at least a grade of “B” average (a 3.0 GPA), in all work attempted while enrolled in the graduate program. All grades received will appear on the student’s transcript and be included in the overall GPA calculation. Transfer and Resident Courses are not included in the cumulative GPA.

Incomplete Work
For courses such as the internship of thesis work that can stretch over more than one semester, the course directors will assign a grade if “In progress” (IP). This IP will be converted in the official letter grade once the work is completed. In selected cases, based on circumstances that are not under a student’s control, a course grade can be posted as “incomplete (I)”, provided the majority of the required work has already been completed. The student is expected to complete the remaining work in the following semester. If the course director does not post the final grade after one year, an “I” grade is automatically changed to an “F”. Incomplete (I) grades are not awarded for poor academic performance or as a way of extending assignment deadlines.

Course Withdrawal Policy
After the add/drop date posted for each semester (after the 10th day for Fall and Spring semesters, and after the 5th day of the Summer semester), enrolled students will have to earn a grade for each course. Discontinuing enrollment in a course after the add/drop date will result in a withdrawal, and a “W” grade will be posted on the student’s transcript for that course. In all cases, a withdrawal form will have to be used to request the withdrawal. Just not attending class anymore is not considered an official withdrawal!
Withdrawal from Anschutz Medical Campus Courses
Students must adhere to the withdrawal policy of the department/program offering the course, which can generally be identified by the course prefix. IDPT and BSBT courses are offered by the Graduate School. If a withdrawal is permitted, the student must first complete the Course Withdrawal Form, which requires signatures of the course instructor, the Program Director, and the Dean of the Graduate School. Please note that students are not eligible for a tuition refund if they withdraw after the add/drop period. Note: Unless there are circumstances that are completely out of a student’s control, a student can enroll in a course no more than two times, regardless of if the student failed the course or withdrew from the course.

Withdrawal from Denver, Boulder and Colorado Springs Campus Courses:
Students enrolled in a course offered at the downtown Denver Campus, will adhere to the posted add/drop and withdrawal dates of that campus. Please consult the campus’ academic calendar for the exact dates. A withdrawal from a Denver Campus course must be completed via UCD Access. Please see the Program Administrator when considering a withdrawal from a Colorado Springs or Boulder Campus course offering (assuming the student had permission to enroll in such a course to begin with).

Note: Before withdrawing from a course, regardless on which campus the course is offered, the student is required to inform the Program Director/ Associate Directors of this intent. This request for information is not meant to interfere with the intention of withdrawal; however, sometimes other opportunities exist that can help a student succeed. Please also keep in mind that course withdrawal can impact your financial aid!

International Students
International students should discuss the possibility of a course withdrawal with the Program Director and an advisor in the Office of International Affairs, as withdrawing from a class may impact full-time status and risks violating visa guidelines and requirements.

Academic Standing
Students must receive a “B-“ or above in all coursework in order for the course to be considered toward degree completion. At the same time, students will have to maintain a minimum overall GPA of 3.0 to be in “Good” academic standing.

When a student’s cumulative GPA falls below 3.0, the Graduate School will notify the student and the Program Director that the student has been placed on academic probation. The student must obtain a GPA of at least 3.0 or greater during each semester on probation. In addition, the student will have two (2) semesters, if enrolled as a full-time student, or four (4) semesters if part time, in which to raise his/her cumulative GPA to at least a 3.0. If a student on probation does not obtain a GPA of at least 3.0 during each semester while on probation, he/she will be subject to dismissal upon recommendation of the Program Director and the concurrence of the Dean of the Graduate School.
BSBT POLICY FOR ACADEMIC APPEALS AND GRIEVANCES

BSBT Grievances
If a student has a grievance with a faculty member, staff, or fellow student, the student should immediately report the grievance to the Program Director, Associate Program Director or both. Such a grievance can include (but is not limited to): perceived harassment, discrimination, unfair and/or disrespectful treatment, and unprofessional behavior. If further escalation is required, the grievance will be reported to the Office of Equity or the Dean of the Graduate School for resolution.

Academic Appeals and Grievances
All BSBT Program Plans adheres to the Appeals Process that has been developed and implemented by the Graduate School. Those procedures address student appeals and grievances arising from issues such as grading decisions, course suspension, program termination or denial of progression based on unsatisfactory academic performance. In all cases, students’ first action should be to discuss the issue with the Program Director or Associate Directors, or both. They will serve as the students advocates, but depending on the specific circumstances, there is no guarantee that the final resolve will meet the students’ expectations. If the issue cannot be resolved on the Program level, the student might want to reach out to the Dean of Students in Graduate School.

Graduate School Academic Honor Code and BSBT Honor Statement
Students are expected to adhere to the highest standards of personal integrity and professional ethics and to the CU Denver Graduate School Academic Honor and Conduct Code. It is imperative that every BSBT student carefully reviews the Graduate School's Student Academic Honor and Conduct Code, as students are responsible for adhering to these policies. For more information see: http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx

BSBT ACADEMIC AND PROFESSIONAL INTEGRITY POLICIES

The University of Colorado Denver|Anschutz Medical Campus is an academic and professional community. As members of this community and as future leaders in biotechnology and health professions, all BSBT students are expected to take personal responsibility for understanding and observing the following policies:

Cell Phones, Tablets and Computer Usage
Cell phones should be turned off during classes or scheduled laboratory sessions. The use of tablets, computers, and other electronic devices in the classroom, laboratory, and small group settings must be for academic purposes only. Students should not use cell phones for personal text messaging in the classroom or laboratory settings. The Program does not provide any electronic devices for classroom use.
Consensual Relationships Policy

- Consensual relationships between students and faculty are not allowed.
- Consensual relationships between students and staff members who are in a position of authority or who have access to student or testing information are not permitted.

Please review the University of Colorado’s Administrative Policy 5015 for details.
http://www.cu.edu/ope/aps/5015

Sexual Harassment

- Sexual harassment is unacceptable behavior and will not be tolerated. Sexual harassment includes unwanted sexual advances, requests for sexual favors, and other intimidating verbal or written communications or physical conduct of a sexual nature.
- No one will receive unfavorable treatment for presenting a complaint of sexual harassment. All complaints will be considered confidential to the extent possible. Only those individuals determined to be involved in the complaint or its resolution will have information concerning the complaint. All complaints of harassment may be reported to the Program Administrator, the Program Director, or the campus sexual harassment officer (please review CU Administrative Policy Statement 5014 for a detailed statement).
- Any individual violating the policy against sexual harassment may be subject to disciplinary action, including dismissal from the program. Failure by anyone vested with the responsibility to report allegations of sexual harassment is considered a violation of this policy. It is the intent of this policy to comply with the requirements under Title VII of the 1964 Civil Rights Act and Title IX of the 1972 Education Amendments, as well as other applicable statutory laws and regulations of the State of Colorado.

Diversity

The University of Colorado Master of Science in Biomedical Sciences and Biotechnology Program recognizes, values, and affirms that diversity contributes richness to the college and enhances the quality of education.

- The Biomedical Sciences and Biotechnology Program is committed to equal opportunity, including opportunities for individuals with disabilities. The BSBT Program does not discriminate on the basis of gender, age, sexual orientation, race, religion, gender identity, or country of origin.
- It is the policy of the BSBT Program that no student or employee shall be excluded from participating in, be denied the benefits of, or be subjected to discrimination in any activity related to the BSBT Program with respect to the program requirements.
- The BSBT Program is committed to providing an academic environment in which everyone is treated with courtesy, respect, and dignity.
- Commitment to the principles of nondiscrimination includes the federally protected classes of age, gender, sex, race, color, creed, national origin, religion, ancestry, marital status, ethnicity, disability, sexual orientation, or status as a
protected veteran.

Graduate School Honor Code and BSBT Honor Statement
Students are expected to follow the Graduate School Academic Honor and Conduct Code and the BSBT Honor Statement at all times, including during exams. Although it is not possible to list every situation that violates the AMC Academic Honor Code, the following examples will provide a reference point:

- **Academic Honesty:** Students should adhere to the highest standards of academic honesty and integrity. Foregoing these standards includes issues related to plagiarism (including the undocumented use of internet and web-based information), cheating, illegitimate possession and/or use of examinations, violation of the ethical standards for conducting research and falsification of official records, and illegal or unauthorized use of University resources.

- **Professional Conduct:** Examples of unprofessional conduct include misrepresentation of effort, credentials, or achievement in either an academic or professional setting, as well as any other conduct unbefitting a professional or biomedical researcher. Professional conduct also includes adhering to the agreements a group sets for itself regarding groups work and individual contributions to such work. It is recommended that the agreement is shared in an email to all group members, and it is understood that further participation to these rules count as agreement to the rules. Violations of individual group members, for example not trying to perform at the highest level, should be shared with the course director and, if necessary, with the Program Director. If a resolution cannot be found, the non-compliant student might be removed from the group and will have to present outside the group. However, because the teamwork is a part of the learning/training process, the student will have to accept a grade reduction for the performance independently of the assigned team work.

- The University of Colorado Denver|Anschutz Medical Campus is an alcohol-, drug-, and tobacco-free campus.

- **Respect for the Rights and Property of Others:** Students shall ALWAYS conduct themselves in a professional manner that recognizes the rights, personality, and property of others.

Graduate School Honor Code,
A student will be notified in writing if a breach of the Graduate School Honor Code or BSBT professional expectations is perceived. The student has an opportunity to gather information in order to properly respond to the allegation. He/she will then meet with the Program Director and those directly impacted by the infraction. If further escalation is required, the infraction will be reported to the Dean of the Graduate School or his representative. The Graduate School will then abide by the following procedures:

1. Normally, disciplinary action will not be taken against the alleged violator until the Honor and Conduct Committee (a committee generally consisting of four faculty members and two student representatives) and the Dean have reviewed the case and arrived at a decision. However, if the alleged violation threatens the welfare or safety of others or is against the law, appropriate action will be taken immediately.
2. The Dean of the Graduate School or his representative will review the information submitted concerning the alleged violation. If there is no admission of wrongdoing, the case will be referred to the Honor and Conduct Committee for a hearing. Legal counsel will not be present for either the student or the University parties. The hearing will adhere to the following minimum guidelines:
   a. Adequate notice to all concerned parties.
   b. An opportunity provided for the student accused of the violation to be heard and to question the person alleging the violation.
   c. A detailed confidential record of the proceedings.
3. Following its deliberations, the Honor and Conduct Committee will submit its findings and recommendations to the Dean. The Dean will make a decision on the case in a timely manner and will communicate the decision to the student and to the appropriate faculty members, including the Program Administrator and Program Director of the BSBT Program.

Faculty Academic Principles, Professional Rights, and Responsibilities
Faculty at the University of Colorado Denver|Anschutz Medical Campus are guided by the University of Colorado Faculty Academic Principles, Professional Rights, and Responsibilities. If a student has a valid concern about a faculty member's violation of these responsibilities, we encourage the student to report the matter to the BSBT Program Director.

CAMPUS LOGISTICS AND REQUIREMENTS

Email Policy
The BSBT Program abides by the Graduate School's Student Email Policy. It is important for students to review the policy and abide by the guidelines. As the Graduate School's Student Email Policy states, email is the official means of communication for the Graduate School. This holds true for the BSBT Program, and students are responsible for reviewing emails frequently. Not reading email does not absolve a student from the responsibilities associated with communication sent to his/her official email address. Students are expected to check their ucdenver.edu or cuanschutz.edu email address on a frequent and consistent basis in order to stay current with University communications. Students have the responsibility to recognize that certain communications may be time sensitive. “I didn’t check my email,” error in forwarding email, or email returned to the University with “Mailbox Full” or “User Unknown” are not acceptable excuses for missing University communication sent via email.

Parking
Parking passes are required for all permit-only lots on the University of Colorado Anschutz Medical Campus. Permits for the Denver Campus and the Anschutz Medical Campus are different and cannot be used interchangeably. Additional information can be found at http://www.ucdenver.edu/about/departments/FacilitiesManagement/ParkingMaps/Pages/ParkingMaps.aspx
RTD (Regional Transportation District) Passes
The RTD College Pass is available to all active (enrolled) degree-seeking students. The pass is supported by a mandatory student user fee. The RTD College Pass includes all regular fixed route services, including bus (local, express, regional), light rail (including A-Line to the airport), Call-n-Ride, and skyRide service. Services NOT included in the RTD College Pass program are: Access-a-Ride, BroncosRide, RockiesRide and other special event services.

The fee will be assessed for any term in which the degree-seeking student enrolls for academic credit at the Anschutz Medical Campus. Waivers out of the College Pass Program will be allowed only for individual students who meet specific criteria that are outlined in the Fee Waiver Application form, which can be located on the Student Assistance Office webpage http://www.ucdenver.edu/anschutz/studentresources/student-assistance/student-resources/Pages/Parking-Transportation.aspx.
Waiver criteria include:

- Students whose capstone/internship projects take them to hospitals or locations/buildings outside of the RTD service area must pay the per-term fee.
- In the event that a degree-seeking student is not enrolled in a particular term, per RTD regulations, the fee and associated transit services cannot be ‘opted into’ for that particular term.
- Non-degree seeking students are not eligible for the RTD College Pass.

Degree-seeking students new to campus
For degree seeking students new to the University, the College Pass will not be available until students complete the orientation and receive their AMC ID Badges. For new students, the College Pass will be distributed by the Badging/Security Office during matriculation. Students will be scheduled for Anschutz Campus ID photos, and the RTD College Pass ID will be prepared and distributed at the same time.

Continuing students
For continuing students (those enrolled as degree seeking in an AMC degree program), the College Pass will be available before the beginning of the next term. For continuing students, the RTD College Pass will be distributed by the Student Assistance Office in Room 3123 of Ed II North. As always, announcements will be sent via email with instructions for picking up the College Pass ID sticker.

Badges and Access
The Program Administrator will arrange a date and time for new students to visit the badging office to receive their AMC ID badges. Badges give students access to necessary areas after hours and on weekends.

If a badge is lost, stolen, damaged, or is malfunctioning, please contact the Security Badging Office immediately. The Security Badging Office is located on the 1st floor of the Fitzsimons Building. Additional contact and badging information can be found on the Security Badging website.

Colorado Residency
Colorado residency and access to in-state tuition benefits is determined by the Registrar’s Office at the Anschutz Medical Campus. An individual must have been
domiciled in Colorado for one calendar year before he/she can petition to receive in-state tuition benefits. For information on how to establish domicile in the state of Colorado, please see the website for the Office of the Registrar.
http://www.ucdenver.edu/anschutz/studentresources/Registrar/StudentServices/Pages/Residency.aspx.
Once a student has established domicile in the state of Colorado, the student must complete a Petition for Residency and submit the petition to the Registrar's Office.

**Academic Calendars**
The BSBT Program will adhere to the Calendar of the Anschutz Office of the Graduate School, which is published by the Graduate School and located on the Graduate School's Student Services website:
http://www.ucdenver.edu/academics/colleges/Graduate-School/current/Pages/resources.aspx. Please note that BSBT – GENERAL is a dual-campus program and students will enroll in courses on the Denver Campus and the Anschutz Medical Campus. The Denver Campus currently operates on a different academic calendar and classes often start one week earlier than on the Anschutz Campus. Students must follow the course calendar based on the campus location for the specific course. Note: the Free Shuttle between both campuses leaves 10 minutes past the hour in front of the Fitzsimons Building on the Anschutz Campus and the Lawrence Street Building on the Denver Campus.

**Course Registration**
All students will use the UCD portal(http: www.ucdenver.edu/ucdaccess) to add, drop, and/or withdraw from courses each semester. Only the student may alter his/her own academic schedule, and is responsible for all registration functions.
The start of registration for each semester, in general, is as follows:
- Fall Semester: First Monday in August
- Spring Semester: First Monday in December
- Summer Semester: Second Monday in May

The last day for students to add/drop courses, in general, is as follows:
- Fall Semester: Friday of the second week of classes
- Spring Semester: Friday of the second week of classes
- Summer Semester: Friday of the first week of classes

To access registration functions, login to the UCDAccess portal. Please be sure to consult the Academic Calendar of the Anschutz Office of the Graduate School for exact dates each academic year.

If a student needs to add a course after the add/drop deadline has passed, the student must complete the Student Registration Form and obtain a signature of permission from the faculty member directing the respective course(s). Please send the form to the BSBT Program Administrator who will pass it on to the Registrar. Please be aware that a late fee will be assessed.
ENROLLMENT DEFERMENT and RE-ADMISSION

Enrollment Deferment
Students who were accepted to the program and wish to defer enrollment must contact the BSBT Program Administrator. If the accepted student wishes to enroll the following academic year, then completion of Part 1 of the University of Colorado Denver graduate application for the BSBT Program is required for the subsequent academic year, as well as the $50 application fee.

Readmission of Former and Suspended Students
Former Students:
Students who have been admitted to the BSBT program have five calendar years to complete the curriculum requirements. Occasionally, students will experience events that interrupt their course of study for one or more semesters. If a student leaves the program for more than one calendar year or three semesters, including the summer, the student must contact the BSBT Program Administrator to determine his/her eligibility to continue in the program. If continuation is recommended, the student is required to submit Part I of the University of Colorado Denver graduate application for the BSBT Program, as well as the $50 application fee.

Suspended Students:
A suspended student is eligible to apply for readmission to the program no sooner than one full calendar year (3 semesters, including the summer) following suspension from the BSBT Program. Part 1 of the University of Colorado Denver application must be completed, and the $50 application fee must be paid. A Statement of Purpose must also be submitted with the application. Students are expected to consult with the Program Administrator about the requirements for this documentation. Readmission to the program is at the discretion of the Program Director and/or the admissions committee.

STUDENT PRIVACY

The Family Educational Rights and Privacy Act (FERPA) (20 U.S.C. § 1232g; 34 CFR Part 99) is a Federal law that protects the privacy of student education records. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives students certain rights with respect to their educational records, such as:

- Students have the right to inspect and review their education records maintained by the school.
- Students have the right to request the correction of records if they believe them to be inaccurate or misleading. If the school decides not to amend the record, the student has the right to a formal hearing.
- Generally, schools must have written permission from the student in order to release any information from a student's education record. Schools may disclose, without consent, "directory" information such as a student's name, address, telephone number, date and place of birth, honors and awards, and dates of attendance; however, schools must tell students about directory information and allow students a
reasonable amount of time to request that the school not disclose directory information about them. Students who wish to request the prevention of this disclosure may complete the Request to Prevent Disclosure of Directory Information. Please submit this form to the BSBT Program Administrator, who will in turn submit it to the Registrar's Office.

PROFESSIONALISM

The BSBT Program exists in a health professional school, including classrooms, laboratories and small group settings. Therefore, students are expected to dress and conduct themselves in a professional manner at all times.

Dress Code in the Classroom and Small Group settings:
Clean casual attire is welcome. Students in the classroom and in small groups should dress professionally, demonstrating respect for fellow students and faculty.

Dress Code in Laboratory:
Closed-toe shoes are mandatory in the laboratory environment per Department of Environmental Health and Safety requirements.

Children in Class
Children are permitted in class only with the written permission of the Course Director and the Instructor of the specific class. Students are requested to make sure that the child does not interfere with or distract from the class procedures. For nursing needs, the location of lactation rooms is listed here: https://www.cu.edu/docs/cu-denveranschutz-campus-lactation-rooms

Salutation
Not all campus members are comfortable being addressed by their first name. If in doubt, students are encouraged to err on the more formal side. Clues for the preferred salutation are how people introduce themselves: If they introduce themselves with their first name only, they are normally comfortable to be addressed this way. If they close emails with no name (just their email signature) or Dr. xxx, then they often prefer a more formal salutation.

Time Management
While faculty will try to be mindful of the fact that many Master’s students also have to earn a living while enrolled in the graduate program, program meetings with all students or meeting times with the Program Director or Course Directors can collide with a student’s work schedule. In some cases, it might be necessary that a student takes a little time off from work to meet the academic requirements.

BSBT Student Academic and Professional Integrity Policy Infractions
It is expected that students will observe the policies listed above. If a student is not adhering to these policies, the infraction(s) will be reported to the Program Director. The student will meet with the Program Director to gain an understanding of the issue and develop a resolution. If the student and the Program director cannot reach an agreement, the issue will be forwarded to the Dean of the Graduate School or the office of Equity, depending on the specific case.
## PROFESSIONAL SCIENCE MASTER'S PROGRAM
### BIOMEDICAL SCIENCES & BIOTECHNOLOGY
#### (BSBT-GEN)

2020/2021 Curriculum:
**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall I</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| BSBT 6072 – 6075 | BSBT 6072: Foundations in Biochemistry  
                      BSBT 6073: Foundations in Molecular Biology  
                      BSBT 6074: Foundations in Cell Biology  
                      BSBT 6075: Foundations in Genetics  
                      August 17 – October 30, 2020 (Monday through Friday 8-10AM) | Fall 1.5 cr./each |
| BSBT 6065      | RCR Case Studies  
                      Wednesdays: 6:00 pm to 8:00 pm | 1 cr./ Fall   |
| Elective       |                                                                              | 2 cr.         |

| **Spring I**   |                                                                              |               |
|                | BSBT 6067: Statistics for the Biomedical Sciences                          | 2 cr./ Spring |
|                | BSBT 6071: R Programming                                                    | 1 cr./ Spring |
|                | BIOL 5125: Molecular Biology Laboratory (Denver Campus)                    | 3 cr./ Spring |
|                | BIOL 5024: Introduction to Biotechnology (Denver Campus)                   | 3 cr./ Spring |
| Elective       |                                                                              | 2 cr.         |

| **Fall II**    |                                                                              |               |
|                | ENGL 5175: Writing in the Sciences (Denver Campus)                          | 3 cr./Fall/ Spring |
|                | PHSC 7330: Development of Drugs and Biologics (only in even years)          | 3 cr./ Fall     |
|                | BSBT 6802: The Regulatory Environment of Life Science  
                      **Not offered in Fall 2020**                                       | 3 cr./ Fall     |
| Elective       |                                                                              | 3 cr.          |
| Elective       |                                                                              | 1 cr.          |

| **Spring II**  |                                                                              |               |
|                | BSBT 6061: Project Management  
                      **Offered remotely in Fall 2020, Thursdays 1-5 PM. Please register with Pat ASAP.**  
                      ISMG 6450: Project Management  
                      **Due to COVID and alternative course will be recognized in Fall 2020 as well: Thursdays: 6:30 to 9:15 PM** | 2 cr.          |
|                | BSBT 6801: Biomedical Entrepreneurship                                        | 3 cr./ SP      |
|                | BSBT 6939: Internship; Discuss with Program Director!                         | 3 – 6 cr. all  |
## ELECTIVE COURSES:

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Stem Disciplines: (While likely, it is not guaranteed that the courses are always offered in the semester indicated)</th>
<th>Credits/ Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSBT 6110</td>
<td>Intro to Biocomputing</td>
<td>3/ Fall</td>
</tr>
<tr>
<td>BSBT 6111</td>
<td>Intro to Biomedical Data Practices</td>
<td>1/ Fall</td>
</tr>
<tr>
<td>BIOL 6764</td>
<td>Biological Data Analysis</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>BIOS 6310</td>
<td>Practical Clinical Informatics</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>MOLB 7900</td>
<td>Practical Computational Biology for Biologists: Python</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>MOLB 7910</td>
<td>Practical Computational Biology for Biologist: R</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>BSBT 6939-</td>
<td>Internship with focus in bioinformatics – Discuss with Certificate Program Director!</td>
<td>3-6/ Summer.</td>
</tr>
<tr>
<td>Section 002</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Core Topics A:

November 2 - November 19, 2020 M-F 8-10 AM

<table>
<thead>
<tr>
<th>Stem Disciplines:</th>
<th>Credits/ Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Discovering Protein Function and Structure</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Microbiology in Biomedical Research</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Inflammation</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Evolutionary Genetics and Genomics</td>
<td>2/ Fall</td>
</tr>
</tbody>
</table>

### Core Topics B:

November 20 - December 11, 2020 (no classes Nov. 25, 26, 27) M-F 8-10 AM

<table>
<thead>
<tr>
<th>Stem Disciplines:</th>
<th>Credits/ Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stem Cell Biology to Regenerative Medicine</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Gene Regulation and RNA Biology in Disease</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>The Microbiome in Health and Medicine</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Principles of Cancer Biology</td>
<td>2/ Fall</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stem Disciplines:</th>
<th>Credits/ Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction to Laboratory Animal Research</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Population and Evolutionary Genetics</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Cancer Biology Mini-Course</td>
<td>1/ Spring</td>
</tr>
<tr>
<td>Histo-Physiology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Clinical Outcomes and Applications</td>
<td>3/ Fall</td>
</tr>
<tr>
<td>Stem Cells and Development</td>
<td>4/ Spring</td>
</tr>
<tr>
<td>Environmental Epidemiology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Epidemiology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Advanced Genome Analysis</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>Survey of Human Genetics</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Hands-On Proteomics Workshop</td>
<td>1/ Spring</td>
</tr>
<tr>
<td>Tissue Biology and Disease Mechanisms</td>
<td>3/ Fall</td>
</tr>
<tr>
<td>Overview of Immunology</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Fundamentals of Neurobiology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Biological Basis of Psychiatric and Neurological Disorders</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Developmental Neurobiology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Pharmacology, Physiology &amp; Chemistry of Cannabis</td>
<td>3/ Fall</td>
</tr>
<tr>
<td>Cannabis Therapeutics: Emphasis in Neurology and Mental Health</td>
<td>2/ Fall</td>
</tr>
<tr>
<td>Cannabis Therapeutics: Emphasis in Pain, Oncology Supportive Care, and At-Risk Populations</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>Legal and Regulatory Issues of Cannabis</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>Nanotechnology and Drug Delivery</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>Pharmaceutical Biotechnology</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Biophysics and Spectroscopy</td>
<td>3/ Spring</td>
</tr>
<tr>
<td>Neuro-Toxicology</td>
<td>2/ Spring</td>
</tr>
<tr>
<td>Principles and Strategies of Effective Teaching</td>
<td>1/ Spring</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------</td>
</tr>
<tr>
<td>BSBT 6063</td>
<td>Speaking and Presenting for Scientists and Educators - Delivering Effective Scientific and Educational Presentations</td>
</tr>
<tr>
<td>ENTP 6848</td>
<td>Leadership in New Ventures</td>
</tr>
<tr>
<td>MKTG 4700</td>
<td>Personal Selling and Sales Management</td>
</tr>
<tr>
<td>ENTP 6834</td>
<td>Lean Marketing (online)</td>
</tr>
<tr>
<td>ENTP 6020</td>
<td>Bus Model Development &amp; Plan</td>
</tr>
</tbody>
</table>

38 credits are required for graduation in all BSBT- Program Plans, and graduate students must maintain an overall GPA of at least 3.0 (“B”). Courses with the grade of “C” are not accepted for graduation.

Please note:
- The courses listed in “blue” are electives for BSBT-GEN students and required or elective courses for the Biomedical Data Science Graduate Certificate Program (https://www.ucdenver.edu/offices/office-of-information-technology/ticr-high-performance-computing/biomedical-data-science-graduate-certificate-program). Students who are interested in earning this Certificate will have to first talk to the BSBT and Graduate Certificate Program Director and also fill in the form: http://www.ucdenver.edu/academics/colleges/Graduate-School/Documents/GSOCTFORMS/Intent-to-Complete-Graduate-Certificate.pdf
- Note, students do not have to start the Master’s and the Certificate Program at the same time, but the Certificate will have to be completed by the latest at the time the Master’s is earned.
- Courses are not guaranteed to always be offered, or offered in the indicated semester. Faculty availability might require changes. Students are encouraged to check the course availability before planning their semester schedule.
- The courses IDPT 7810 “Core Topics in Biomedical Sciences” will be recognized as electives for graduation for all BSBT-GEN students, but some courses allow only a limited number of students to enroll and might give preference to PhD students. Please check with course directors.
- Please check with course directors for courses that have restricted enrollment, i.e. might request the prior fulfillment of some pre-requirements
- It is the students’ responsibility to verify before enrollment in any elective courses that they fulfill the pre-requirements that are posted or inquire with the course director which pre-requirements apply.

BSBT GENERAL Co-curricular Requirements!
- For BSBT-GEN students, as part of their graduation requirements, it is mandatory that students,  
  a) attend all program meetings,  
  b) meet with the Program Director at least once per semester in person, and  
  c) participate in at least one career development workshop per semester and document the attendance in a form that is available from the Program Administrator.  
  d) Starting with the 2019/20 cohort, students will also have to document that they conducted at least one informational interview with a person who holds a job that might also be a possible career path for the student.
# BIOMEDICAL SCIENCES & BIOTECHNOLOGY
## Program Plan: Microbiology & Immunology (BSBT-MIM)

### 2020/2021 Curriculum:
**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall I</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| BSBT 6072 – 6075 | BSBT 6072: Foundations in Biochemistry  
BSBT 6073: Foundations in Molecular Biology  
BSBT 6074: Foundations in Cell Biology  
BSBT 6075: Foundations in Genetics | 1.5 cr./each |
| BSBT 6065     | RCR Case Studies  
*Wednesdays: 6:00 pm to 8:00 pm* | 1 cr. / Fall |
| IDPT 7810-002 | Microbiology in Biomedical Research | 2 cr. / Fall |
| IMMU 7630     | Overview in Immunology | 2 cr. / Fall |
| Elective      | Enrollment also possible in Fall II | 2 cr. |

<table>
<thead>
<tr>
<th><strong>Spring I</strong></th>
<th></th>
<th></th>
</tr>
</thead>
</table>
| MICB 7703     | Molecular Mechanisms of Bacterial Disease  
*Plus* | 3 cr. Spr. |
| MICB 7701     | Molecular Virology and Pathogenesis  
*OR* | 3 cr. Spr. |
| IMMU 7662     | Immunology (6 cr.) | 6 cr. Spr. |
| BSBT 6064     | Scientific Writing | 1 cr. / Spr. |
| BSBT 6070     | Laboratory Research Mini- Rotations  
(Discuss with Program Plan Director!) | 3 cr. / Spr. |

<table>
<thead>
<tr>
<th><strong>Fall II</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSBT 6061</td>
<td>Project Management</td>
<td>2 cr. Spr./F</td>
</tr>
</tbody>
</table>
| BSBT 6069     | Laboratory Research Microbiology or Immunology  
(*Credits can vary from 3-6*) | 3- 6 cr. |
| Elective      |                                                                             | 2 cr.   |

<table>
<thead>
<tr>
<th><strong>Spring II</strong></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Elective</td>
<td>If not enrolled in Fall I</td>
<td>2 cr.</td>
</tr>
<tr>
<td>BSBT 6071</td>
<td>R Programming</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BSBT 6067</td>
<td>Statistics for the Biomedical Sciences</td>
<td>2 cr.</td>
</tr>
</tbody>
</table>
| BSBT 6069     | Laboratory Research Microbiology or Immunology  
(*Credits can vary from 3-6*) | 3- 6 cr. |

BSBT-MIM electives can be chosen from the list of electives that is posted for BSBT-GEN.
## BIOMEDICAL SCIENCES & BIOTECHNOLOGY
### Program Plan: Bioinformatics in Microbiology & Immunology (BSBT-MIB)

### 2020/2021 Curriculum:
**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSBT 6071</td>
<td>R-Programming</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BSBT 6070</td>
<td>Lab Rotations</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BSBT XXXX</td>
<td>NEW COURSE: SEMINAR/JC</td>
<td>1 cr.</td>
</tr>
<tr>
<td>Elective</td>
<td>Bioinformatics</td>
<td>2-3 cr.</td>
</tr>
<tr>
<td>BSBT 6061</td>
<td>Project Management</td>
<td>2 cr.</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective or required Bioinformatics</td>
<td>2-3 cr.</td>
</tr>
<tr>
<td>BIOS 6621</td>
<td>Statistical Consulting</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BSBT 6066</td>
<td>Micro or Imm. Thesis Research</td>
<td>3 cr.</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective or required Bioinformatics</td>
<td>2-3 cr.</td>
</tr>
<tr>
<td>BSBT 6065</td>
<td>Case Studies: RCR</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BSBT 6061</td>
<td>Project Management</td>
<td>2 cr.</td>
</tr>
<tr>
<td>Elective</td>
<td>Elective or required Bioinformatics</td>
<td>2-3 cr.</td>
</tr>
<tr>
<td>BSBT 6064</td>
<td>Scientific Writing</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BSBT 6066</td>
<td>BSBT 6066 Micro or Imm. Thesis Research</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

**Electives in Bioinformatics for BSBT-MIB**

For further discussion, please contact Dr. Laurent Gapin, Lauren.Gapin@cuanschutz.edu

- Big Data BSBT 6110 Introduction to Biocomputing
- Big Data BSBT 6111 Introduction to Biomedical Data Science
<table>
<thead>
<tr>
<th>Subject</th>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Data</td>
<td>CPBS 7660/BIOS</td>
<td>Analysis of Genomics Data Using R and Bioconductor</td>
</tr>
<tr>
<td>Big Data</td>
<td>IDPT 7810</td>
<td>Practical Biological Data Analysis with R/R</td>
</tr>
<tr>
<td>Big Data</td>
<td>MOLB 7620</td>
<td>Advanced Genome Analysis</td>
</tr>
<tr>
<td>Big Data</td>
<td>MOLB 7950</td>
<td>Practical computational biology for biologists: Python</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 7659</td>
<td>Statistical Methods in Genomics</td>
</tr>
<tr>
<td>Informatics</td>
<td>CPBS 7711</td>
<td>Methods and Tools in Biomedical Informatics</td>
</tr>
<tr>
<td>Informatics</td>
<td>CPBS 7712</td>
<td>Research Methods in Biomedical Informatics</td>
</tr>
<tr>
<td>Informatics</td>
<td>CSCI 7000</td>
<td>Bioinformatics and Genomics</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 6623</td>
<td>Advanced Data Analysis</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 6641</td>
<td>Intro to R Programming (2cr)</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 6640</td>
<td>R for Data Science (2 cr.)</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 6644</td>
<td>Practical Data Wrangling (2 cr. online)</td>
</tr>
<tr>
<td>Statistics</td>
<td>BIOS 7719</td>
<td>Information Visualization (3 cr.)</td>
</tr>
</tbody>
</table>
### BIOMEDICAL SCIENCES & BIOTECHNOLOGY
Program Plan: Structural Biology & Biochemistry (BSBT-SBB)

#### 2020/2021 Curriculum:
**REQUIRED COURSES**

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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BSBT 6073: Foundations in Molecular Biology  
BSBT 6074: Foundations in Cell Biology  
BSBT 6075: Foundations in Genetics  
August 17 – October 30, 2020 *(Monday through Friday 8-10AM)* | Fall 1.5 cr./each |
| BSBT 6065    | RCR Case Studies  
*Wednesdays: 6:00 pm to 8:00 pm* | 1 cr./Fall |
| BSBT 6076    | Research Explorations; Choose Fall I *OR* Spring. I | 1 cr. |
| STBB 7660    | Structure Seminar | 1 cr. |
| IDPT 7810    | Core Topics A: Structural Biology | 2 cr. |
| IDPT 7810    | *OR* Research  (2 cr.) *OR* Elective (2 cr.) | 2 cr. |

| **Spring I**  |                                                                              |         |
| STBB 7608    | Molecular Interactions  
*OR* (depending on course offering)  
Biophysics & Spectroscopy | 3 cr. |
| STBB 7609    |                                                                     | 3 cr. |
| BSBT 6076    | Research Explorations; Choose Fall *OR* Spring | 1 cr. |
| STBB 7660    | Structure Seminar | 1 cr. |
| BSBT 6068    | Laboratory Research SBB  
*(Credits can vary from 3-6)* | 3-6 cr. |

| **Fall II**   |                                                                              |         |
| STBB 7631-4  | Special Topic in Structural Biology  
BSBT-GEN Elective; discuss with Program Plan Director | 1.5 cr. |
| STBB 7660    | Structure Seminar | 1 cr. |
| BSBT 6068    | Laboratory Research SBB Thesis  
*(Credits can vary from 3-6)* | 3-6 cr. |

| **Spring II** |                                                                              |         |
| BSBT 6068    | Laboratory Research SBB Thesis  
*(Credits can vary from 3-6)* | 3-6 cr. |
| STBB 7660    | Structure Seminar | 1 cr. |

BSBT-SBB electives can be chosen from the list of electives that is posted for BSBT-GEN