

Clafin University
School of Natural Sciences and Mathematics
Department of Biology

**Rules And Regulations for the Pursuit of the
Master's Degree in Biotechnology**

2008



A. INTRODUCTION

The Center for Biotechnology aims to successfully prepare all of its students for quality leadership in government, private sector, and university, specifically those related to Biotechnology industries. Seeking to be varied and interdisciplinary, this innovative program will draw its hand-selected faculty and courses from a wide variety of resources and disciplines. Claflin's biomedical Research center, recognized science departments, and enviable position as geographically near one of the largest pharmaceutical & biotechnological industries in the "Research Triangle Park," indisputably place this exclusive program at the center of Biotechnology education in the United States.

The Master of Science (MS) degree in Biotechnology through Claflin University's School of Natural Sciences and Mathematics' Department of Biology began in the Fall semester of the academic year 2005-2006. The projected enrollment is for no more than ten students in the initial year of the program with an increase to a steady-state of 30 students enrolled at any given time. The program requires two full years of coursework and research, culminating with the production of a master's thesis. According to their interest, backgrounds and career goals, students can choose from three parallel tracks. The current curriculum for all tracks consists of six core courses and three "track specific" courses for a total of 30 credit hours.

TABLE OF CONTENTS

| | |
|---|--------------|
| Introduction..... | ii |
| History of Claflin University..... | 4-5 |
| Claflin University’s Vision..... | 6-7 |
| Privacy Act of 1974..... | 8-10 |
| Student Expectations..... | 10-15 |
| Student Code of Conduct..... | 15-16 |
| Student Code of Conduct Violations and Sanctions..... | 16-19 |
| The Hearing Procedure..... | 19-23 |
| Master of Science Degree Program in Biotechnology..... | 23-29 |
| Laboratory and Learning Resources..... | 29-32 |

B. HISTORY OF CLAFLIN UNIVERSITY

The South Carolina conference of the Methodist Episcopal Church was organized under the "Mission Rule" which committed the church to the Christianization of Negroes in America. It was the policy of the church to encourage colored pastorates for colored people and to authorize bishops to reorganize Colored Mission Conferences. In 1866, Bishop Osman C. Baker reorganized Colored Mission Conferences and organized the South Carolina Conference at Charleston. In the same year, Baker Theological Institute, so named to honor Bishop Baker, was founded for the purpose of giving religious instruction and disciplines to the ministers who would serve the conference.

It soon became apparent to the church and conference leaders that both the cause of the church and that of the union could be more adequately advanced if an institution of higher learning could be established for the training of Negro laymen as well as ministers. Lee Claflin, a prominent layman of the New England Conference, and son of the Honorable William Claflin, governor of Massachusetts, offered means for the purpose of establishment of the Baker Theological Institute. Dr. Alonzo Webster, an instructor at the Institute, selected as a site for the school the property of the Orangeburg Female College at Orangeburg, South Carolina.

In October 1869, the school was formally opened with Dr. Webster as its president. In the next year Baker Theological Institute was incorporated into the new school. In honor of Lee Claflin, its philanthropic sponsor, the school was named Claflin University.

The charter, which was granted to the University on December 1869, mirrors the Christian and democratic spirit of the time. Section 4 of the charter mentions the effectual promotion of virtues, piety, and learning and also the training in languages, liberal and useful arts and sciences.

Section 5 states: No instructor in said University shall ever be required by the Trustees to have any particular complexion or to profess any particular religious opinions as a test of office, and no students shall be refused admission to or denied any privileges, honors or degrees of said University on account of race, complexion, or religious opinions which he may entertain. Provided, nevertheless, that this section, in reference only to religious opinion, shall not apply to the Theological department of said University.

Such a liberal spirit which shines brighter with the passage of time has always been treasured by the Institution.

In 1872 the South Carolina Agricultural and Mechanical College was established and located in Orangeburg by an Act of Legislature. It was operated in connection with Claflin University. In the same year, the Rev. Edward Cooke succeeded President Webster and headed the Institution until 1884.

A fire destroyed two main buildings on the campus in 1876, but the Rev. M. L. Dunton, Special Financial Agent of the Institution, soon solicited enough money to erect new

buildings for the school. Dr. Dunton was elected vice president in 1884 and became president upon President's Cooke's retirement in 1884.

During the thirty-eight years of vigorous leadership furnished by President Dunton, who served from 1884 to 1922, Claflin University underwent a period of readjustment and reorganization, occasioned by the separation of State A. and M. College from Claflin University by an Act of the General Assembly of South Carolina in 1896.

Upon the resignation of Dr. Dunton in 1922, Dr. J. B. Randolph, a prominent educator who served as Dean of Wiley College, Principal of Haven Institution, and President of Samuel-Houston College, was elected to the presidency and served the Institution until his retirement in 1945.

Dr. J. J. Seabrook, a well-known religious leader and administrator, was president from 1945-1955. Rapid progress was made in the University under his leadership. The curriculum was broadened. The faculty increased. New buildings, such as Bowen Library, Laymen's Science Hall, Pearson Music Studio, Davage Heating Plant, and Seabrook Gymnasium were added, and a new athletic field was provided.

In September, 1955, when President Seabrook resigned to accept the presidency of Houston-Tillotson College in Austin, Texas, an Administrative Committee consisting of Mr. H. D. Smith (Chairman), Dr. Leonard L. Haynes, Jr., Dr. J. Milton Shuler (Secretary), Mr. Robert Smart, and Mr. P. Palmer Worthy carried on the work of the Institution. On March 14, 1956, the Reverend H.V. Manning, pastor of John Wesley Methodist Church, Charleston, South Carolina Conference, was elected to the presidency and assumed office on June 1, 1956.

During the presidency of H.V. Manning eight buildings were erected, namely Mary E. Dunton Hall, C. L. Asbury Hall, Fred P. Corson Hall (women's residential halls), and The High-Rise residential hall for men. The H.V. Manning Library was completed during the summer of 1967, a Fine Arts Center was completed in 1968, and the new President's House (The New Dunwalton) was completed in 1971. The James S. Thomas Science Center was completed the first semester of the 1973-74 academic years, and the Jonas T. Kennedy Health and Physical Education Center was completed in 1980. The University received full membership in the Southern Association of Colleges and Schools and the United Negro College Fund, Inc. Enrollment was the highest that it had ever been in the history of the Institution. The instructional staff was increased, with more of the faculty holding doctorates.

In July 1984, Dr. Oscar Allen Rogers, Jr., assumed the position of Claflin's seventh president. A native of Natchez, Mississippi, Dr. Rogers was a minister, an educator, and an administrator. Dr. Rogers stabilized the University's financial foundation, paying off indebtedness on several buildings and built the Grace T. Kennedy classroom building.

Dr. Henry N. Tisdale was elected to serve as the eighth president of Claflin University, effective June 1, 1994.

C. CLAFLIN UNIVERSITY VISION

Claflin University will be recognized as one of the premier liberal arts institutions in the United States, also offering select graduate programs. To that end, the University commits to a concept of excellence in teaching, research, creative expression and service in which students, faculty, staff and administrators drive the quality of educational opportunities toward being the best of the best.

a. Mission Statement

Claflin University is a progressive, independent, liberal arts, co-educational, historically Black institution that is affiliated with the United Methodist Church. It was chartered (and continues) to provide educational excellence and to prepare students without regard to gender, race, religion, or ethnic origin. It is committed to offering quality undergraduate programs, select graduate programs, and viable continuing education opportunities.

At the undergraduate level, the University ensures that students receive a liberal arts education designed to produce graduates who understand themselves as well as historical and social forces that impact the world. Their academic experiences will include an understanding of religious and aesthetics values in a universal context and thorough grounding in their chosen discipline. Their education will incorporate the use of technology and exposure to recent scientific developments and inculcate critical thinking and communication skills in order to prepare them for leadership and service in a global multicultural society.

At the graduate level, students are provided instruction to enhance the analytical and comprehensive research acumen necessary for professional growth and leadership. Continuing education programs create avenues for students to complete their educational objectives and develop skills necessary for their professional and personal fulfillment.

Undergirding the mission is the University's commitment to excellence in all its endeavors.

b. Clafin's Guiding Principles

At the center of everything we do is a system of values which inform and guide all policies and programs. These values, expressed through our actions and decisions, are defined by five over-arching guiding principles:

- _ COMMITMENT TO EXCELLENCE
- _ COMMITMENT TO VALUING PEOPLE
- _ COMMITMENT TO CUSTOMER FOCUS
- _ COMMITMENT TO EDUCATIONAL PROGRAMS
- _ COMMITMENT TO FINANCIAL RESPONSIBILITY

c. The Philosophy

Claflin University was founded to provide education primarily for a people who were seriously in need of intellectual training and spiritual support. Her founders were humanitarians--courageous men with vision. These qualities are interwoven in the philosophy of Claflin.

From her earliest days, Claflin has been committed to certain principles. The Charter declares not only the academic purpose but also the Christian responsibility of the University. The University is committed to academic enlightenment for the purpose of social justice. Service and commitment to the development of humanity are core values that guide the work of the institution.

The nucleus of this philosophy is the empowerment of students as future leaders and the development of their intellectual, social, and spiritual potential.

d. Facts about Orangeburg

Orangeburg is located near the geographical center of South Carolina. The nearest large city is the capitol in Columbia, 42 miles away. Transportation is provided on a regular schedule by one bus line and other travel agencies. Orangeburg's best-known attraction is the municipally owned and maintained Edisto Gardens. The 55-acre site, located adjacent to the North Edisto River, is open all year, free of charge. It is a show place of azaleas, camellias, and roses. Included in the gardens are: modern picnic facilities, tennis courts, pavilion, and playground.

Orangeburg is also the hub of six heavily traveled US Highways: Interstates 26 and 95, US 601, 301, 178, and 21 as well as SC Highways 70, 39, 6, 4, and 3.

Orangeburg has the following educational facilities in addition to Claflin University: nine elementary schools, two middle schools, one senior high school, two other colleges, one technical college, and one vocational training center. Orangeburg has one local newspaper, The Times and Democrat, which is published daily.

Clafin University Alma Mater

When the sun of Carolina mounts the eastern sky,
Proudly stands our Alma Mater on the hilltop high.

Chorus

Orange, Maroon float for aye Claflin fair o'er thee,
May thy Sons be leal and loyal to thy memory.
When the evening twilight deepens and the shadows fall,
Linger long the golden sunbeams o'er the western wall.

Chorus

When the shades of night shall gather, dark the heart may be,
Still the rays of youth and love shall linger long o'er thee.

Words: Etta Butler Rowe

Melody: Annie Lisle

Harmonized by: Fredricka R. Young

D. PRIVACY ACT OF 1974

Section 438 (a)(1) No funds shall be made available under any applicable program to any State and local educational agency, and institution of higher education, any community college, any school, agency offering a preschool program, or any other education institution which has a policy of denying, or which effectively prevents, the parents of students attending any school of such agency, or attending such institution of higher education, the right to inspect and review all official records, files, and data directly related to their children. This includes all material that is incorporated into each student's cumulative record folder, and intended for school use or to be available to parties outside the school or school system, and specifically including, but not necessarily limited to, identifying data, academic work completed, level of achievement (grades, standardized achievement test scores), attendance data, scores on standardized intelligence, aptitude, and psychological tests, interest inventory results, health data, family background information, teacher or counselor ratings and observations and verified reports of serious or recurrent behavior patterns. Should such records or data include information on more than one student, the parents of any student shall be entitled to receive, or be informed of, that part of such record or data as pertains to their child. Each recipient shall establish appropriate procedures for the granting of a request by parents for access to their child's school records within a reasonable period of time, but, in no case, not more than forty-five days after the request has been made.

(2) Parents shall have an opportunity for a hearing to challenge the content of their child's school records, to insure that the records are not inaccurate, misleading, or otherwise in violation of the privacy or other rights of students and to provide an opportunity for the correction or deletion of any such inaccurate, misleading, or otherwise inappropriate data contained therein.

(b)(1) No funds shall be made available under any applicable program to any State or local educational agency, any institution of higher education, any community college, any school agency offering a preschool program or any other educational institution which has a policy of permitting the release of personally identifiable records or files (or personal information contained therein) of students without the written consent of their parents to any individual, agency, or organization, other than to the following:

(A) Other school officials, including teachers within the educational institution or local educational agency who have legitimate educational interest;

(B) Officials of other schools or school systems in which the student intends to enroll, upon condition that the student's parents be notified of the transfer, receive a copy of the record if desired, and have an opportunity for a hearing to challenge the content of the record;

(C) Authorized representative of (I) the Comptroller General of the United States,

(ii) the Secretary, (iii) and administrative head of an education agency (as defined in section 409 of this Act), or (iv) State educational authorities, under the conditions set forth in paragraph (3) of this subsection; and

(D) In connection with a student's application for, or receipt of, financial aid.

(2) No funds shall be made available under any applicable program to any State or local educational agency, any institution of higher education, and community college, and school, agency offering a preschool program, or any other educational institution which has a policy or practice of furnishing, in any form, any personally identifiable information contained in personal school records, to any person other than those listed in subsection (b) (1) unless:

(A) There is written consent from the student's parents specifying records to be released, the reasons for such release and to whom, and with a copy of the records to be released to the student's parents and to the student if desired by the parents, or;

(B) Such information is furnished in compliance with judicial order, or pursuant to any lawfully issued subpoena, upon condition that parents and the students are notified of all such orders or subpoenas in advance of the compliance therewith by the educational institution or agency.

(3) Nothing contained in this section shall preclude authorized representatives of (A) the Comptroller General of the United States, (B) the Secretary, (C) and administrative head of an education agency or (D) State educational authorities from having access to student or other records which may be necessary in connection with the audit and evaluation of Federally-supported education programs, or in connection with the enforcement of the Federal legal requirements which relate to such programs; provided, that, except when collection of personally identifiable data is specifically authorized by Federal law, any data collected by such officials with respect to individual students shall not include information (including social security numbers) which would permit the personal identification of such students or their parents after the data so obtained has been collected.

(4) (A) With respect to subsections (c) (1) and (c) (3), all persons, agencies, or organizations desiring access to the records of a student shall be required to sign a written form which shall be kept permanently with the file of the students, but only for inspection by the parents or students, indicating specifically the legitimate educational or other interest that each person, agency, or organization has in seeking this information. Such form shall be available to parents and to the school official responsible for record maintenance as a means of auditing the operation of the system. (B) With respect to this subsection, personal information shall only be transferred to a third party on the condition that such party will not permit any other party to have access to such information without the written consent of the parents of the students.

(C) The Secretary shall adopt appropriate regulations to protect the rights of privacy of students and their families in connection with any surveys or data-gathering activities conducted, assisted, or authorized by the Secretary or an administrative head of an education agency. Regulations established under this subsection shall include provisions controlling the use, dissemination, and protection of such data. No survey or data-gathering activities shall be conducted by the Secretary, or an administrative head of an education agency under an applicable program, unless such activities are authorized by law.

(D) For the purpose of this section, whenever a student shall have attained eighteen years of age, or is attending an institution of post secondary education, the permission or consent required of and the rights accorded to the parents of the student shall thereafter only be required of and accorded to the student.

(E) No funds shall be available under any applicable program unless the recipient of such funds informs the parents of students, or the students, if they are eighteen, of the rights accorded them by this section.

(F) The Secretary or an administrative head of an education agency shall take appropriate actions to enforce provisions of this section and to deal with violations of this section, according to the provisions of this Act, except that action to terminate assistance may be taken only if the Secretary finds there has been a failure to comply with the provisions of this section, and he has determined that compliance cannot be secured by voluntary means.

(G) The Secretary shall establish or designate an office and review board within the Department of Health, Education and Welfare for the purpose of investigating, processing, reviewing, and adjudicating violations of this section, according to the procedures contained in section 434 and 437 of this Act.

E. STUDENT EXPECTATIONS

The attitude of students toward each other should be one of goodwill and cooperation. Every student should be met on an equal footing, with an attitude of readiness to encourage, congratulate, or seek proper advice.

a. Statement of Student Rights and Freedoms

1. Claflin University endorses the principles of academic freedom to teach and freedom to learn, freedom to think, freedom to speak, freedom to write, and freedom to publish. The Institution also endorses our citizenship freedoms, including freedom to peaceful assembly to petition for redress of grievances.

2. The University recognizes the desirability of constructive change. It invites criticism from students, faculty and other concerned persons and welcomes the opportunity to work within the University framework with the Student Government Association, and

other lawfully constituted bodies, to make necessary revisions in programs and procedures of the University.

3. Academic freedom is not academic license. Therefore, in the interest of insuring the education teachers are here to give and which students are here to receive, Claflin University will not tolerate threats or intimidation, the use of physical force, violence or physical obstruction which infringes upon the freedom of others and denies the opportunity for teachers to teach and for students to learn. The Institution maintains that the rights and freedoms of students do not include the rights to hamper and restrain the movement of others, to interfere with University operations, including the conduct of classes and the performance of office work, to obstruct movement into, through and out of school buildings, to disrupt school operations, to seize and occupy school buildings, or to injure persons or damage or destroy property. The rights of those who want to learn and attend classes will be protected.

4. Claflin University affirms that the University supports the basic principle that free inquiry and free expressions are fundamental and indispensable rights which should be enjoyed by all members of the academic community. Therefore, students who use threats and intimidation, physical force and/or physical obstruction in an attempt to force their wills upon others will be held fully responsible, and discipline for such action by the University disciplinary process will be prompt and sufficient to the cause.

5. Claflin University (chartered Claflin University) is organized along lines of authority and responsibility clearly defined in its charter and bylaws; it strives to maintain regularly established channels for communication among its various sectors and constituencies, and is operated on the principle that mutual respect shall govern all relationships among its trustees, administrators, teachers, students, and alumni.

b. Grievance Procedure

Whenever a student has a complaint or grievance against a teacher, he/she should first attempt to settle the matter through a conference with the teacher involved. If the matter cannot be adjusted amicably through student-teacher conference, the student should present his/her grievance to the Chair of the department.

The Department Chair will attempt to mediate the conflict between the student and the teacher. He/she will keep a written report of all conferences conducted by him/her and the decision reached on the merits of each controversy. The report shall contain the student's statement of the action complained of, and the date(s) of the action.

If the student or teacher is dissatisfied with the action taken by the Department Chair, the matter may be appealed to the Chairperson of the division in which the teacher is employed. In such case, a written report of previous conferences will be supplied to the Dean by the Chairperson.

Further appeals may be thereafter directed, first to the Vice President for Academic Affairs and then to the Executive Committee of the University. In each case, a written report of previous conferences must be supplied by the administrator who conducted such hearings.

Student complaints will usually embrace matters such as those set out below; however, matters not appearing on this list may be considered if a violation of students' rights is allegedly involved.

1. Capricious enforcement or disregard of University rules.
2. Discrimination (race, disability, etc.).
3. Improper award of grade.
4. Improper classroom management.
5. Sexual harassment (all allegations of such harassment should be immediately reported to the Vice President for Student Development and Services).
All steps in the grievance procedure must be taken without delay

c. Statement of Policy Concerning Academic Dishonesty

Academic dishonesty in school work shall encompass misconduct during testing periods (unauthorized use of eyes, voice, textbook, paper, or any other aid created for use in cheating on an examination, test or classroom exercise) and inadequate acknowledgment of source material used in term papers, research papers, reports and other academic projects.

Plagiarism is a serious academic offense. In general, plagiarism is defined as not doing one's own work, and/or representing the work of another, published or unpublished, as one's own. In all cases, plagiarism is gross intellectual dishonesty and will not be tolerated in any University course. Should a student be suspected of a plagiarized work, the instructor will discuss the matter with the student, who will have an opportunity at that time to defend the work as his or her own. If the student is not satisfied with the decision of the instructor at the conclusion of this discussion, the student shall have the right to appeal. Meanwhile, no credit will be given for the plagiarized work, nor will the student be given the opportunity to make up that work until the matter is resolved by the Student Code of Conduct Judicial Board.

When an instructor shall be convinced that a student has engaged in dishonest practices in academic work assigned to him or her, that instructor shall make a written report of his/her violation to the Vice President for Academic Affairs, the Vice President for Student Development and Services, and to the student(s) involved.

The report of the instructor shall include a recommendation of one of the following penalties:

1. Failing grade on the work relating to the dishonest act;
2. Permanent dismissal from the class in which the dishonest act took place;

3. Suspension from Claflin University

Upon receipt of this report, the Vice President for Academic Affairs shall hold a conference which shall be attended by him/her or his/her representative, the accused student(s) and the accusing instructor. All parties will be bound by the ruling handed down by the Vice President for Academic Affairs. However, if the instructor recommends penalty number two or number three above, cases shall be heard by the Student Code of Conduct Judicial Board instead of the Vice President for Academic Affairs pursuant to the hearing procedures established by the Board.

The forging or alteration of official documents shall be treated as academic dishonesty and the student shall be considered for suspension.

After any case has been heard and appealed, it may not be heard again unless significant new evidence has been produced by either side, or the Vice President for Academic Affairs or the Student Code of Conduct Judicial Board in her/its discretion determines that a new hearing is appropriate in light of the new evidence. Cases in which penalty number one is handed down may not be appealed. Only students shall have the right to appeal.

d. Statement of Policy Concerning Drugs

One of the basic functions of the Board of Trustees is to institute policies for Claflin University. The following statement was approved by the Board October 15, 1970.

The possession, sale, transfer, or use by a Claflin University student of any narcotic, intoxicating, or hallucinogenic drug, made illegal by the laws of the United States, or any political subdivision thereof, is contrary to the policy of Claflin University and antagonistic to its rules and regulations.

1. Where a Claflin student is convicted by a criminal court of the breach of such laws aforementioned, committed in a place located other than on the campus of Claflin University, the University reserves the right to permanently terminate the registration of such student through appropriate disciplinary proceedings instituted against him/her

2. Where the violation of said laws shall take place on the campus of Claflin University, the University reserves the right to institute disciplinary proceedings against the student and to produce his/her permanent dismissal from the student body. In such case, the right of the University to institute each disciplinary proceeding shall exist irrespective of whether criminal proceedings are commenced by the state against such accused person. The student, however, shall be entitled to a notice of said hearing which states the time and place of same, further advising said student of his/her right to appear in person or by or with a representative of his/her choosing

e. Drug and Sexual Harassment Policy

It is the policy of Claflin University that all employees and students have a right to work and/or study in an environment free of discrimination on the basis of race, color, religion, national origin, age, gender, or disability.

Any form of harassment is strongly disapproved, including sexual harassment of employees or students in any form. All faculty, employees, and students must avoid offensive or inappropriate sexual and/or sexually harassing behavior at work and will be held responsible for insuring that the workplace is free from sexual or other harassment. Specifically, Claflin prohibits the following:

- Unwelcome sexual advances (such as date rape). Individuals must understand that “No” means “No!”
- Requests for sexual favors, whether or not accompanied by promises or threats with regard to the employment or academic relationship.
 - Verbal or physical conduct of a sexual nature made to any employee or student that may threaten or insinuate either explicitly or implicitly that any employee’s submission to or rejection of sexual advances will in any way influence any personnel or academic decision regarding that person’s employment, evaluation, wages, advancement, assigned duties, shifts or any other condition of employment, career or academic development.
- Any verbal or physical conduct that has the purpose or effect of substantially interfering with the employee’s or student’s ability to do his or her job.
- Any verbal or physical conduct that has the purpose or effect of creating an intimidating, hostile or offensive working or academic environment.

Such conduct may result in disciplinary action up to and including dismissal.

Other sexually harassing conduct in the workplace, whether physical or verbal, committed by supervisors or non-supervisory personnel is also prohibited. This behavior includes but is not limited to commentary about an individual’s body, sexually degrading words to describe an individual, offensive comments, off-color language or jokes, innuendoes, and sexually suggestive objects, books, magazines, photographs, cartoons and pictures.

Employees and/or students who have complaints of sexual harassment by anyone, including any supervisors, co-employees, faculty/instructors, students, or visitors are urged to report such conduct to the Vice President for Student Development and Services.

Claflin University will investigate all complaints expeditiously and professionally. Where investigations confirm the allegations, appropriate corrective action will be taken.

Claflin University will handle all information relating to the complaint and investigation as confidentially as possible

There will be no retaliation against employees or students for reporting sexual harassment or assisting in the investigation of a complaint. However, if after investigating any complaint of harassment or unlawful discrimination, Claflin University learns that an employee or student has provided false information regarding the complaint, disciplinary action may be taken against the individual who provided the false information.

f. Claflin University Sexual Assault Policy Statement

Claflin University will not tolerate sexual assault in any form, including stranger rape, date rape or acquaintance rape. Where there is probable cause to believe that the campus' regulations prohibiting sexual assault have been violated, the University will pursue strong disciplinary actions through its own channels. This policy applies to all full-time and part-time students. Students who violate this policy will be subject to appropriate disciplinary action which may include counseling, disciplinary probation, suspension, expulsion, and referral to the proper law enforcement authorities for prosecution.

A student charged with sexual assault can be prosecuted under South Carolina criminal statutes and disciplined for violating the Claflin University Student Code of Conduct. Even if the criminal justice authorities choose not to prosecute, the University can pursue disciplinary action.

The University encourages all members of the University community to be aware of both the consequences of sexual assault and the options available to victims/survivors. For more information, contact the Office of the Vice President for Student Development and Services (535-5341). The University encourages reporting all incidents of sexual assault to the Security Office (535-5444). Our off-campus resource is CASA/Family Systems, the local rape crisis center (531-6211).

F. STUDENT CODE OF CONDUCT

The code of conduct expected of students of Claflin University sets out the exemplary behavior expected of a student both as an individual and as an ambassador of the University. The code applies to each student who is enrolled, whether on campus or off, during sessions or in between semesters. The purpose of publishing disciplinary regulations is to give students general notice of prohibited behavior. This Code is not written with the specificity of a criminal statute. These regulations should be read broadly and are not designed to define prohibited conduct in exhaustive terms.

A student who willfully violates the Student Code of Conduct may expect consequences in relation to the circumstances of the act.

The University reserves the right to take necessary and appropriate action to protect the safety and well-being of the campus community. Such action may include taking disciplinary action against those students whose behavior off University premises indicates that they pose a substantial danger to others. Persons are encouraged to promptly report violations of the Student Code of Conduct to a University Official.

Other more severe sanctions may be imposed where deemed appropriate and necessary by the university. Moreover, prior offenses are cumulative and may submit the student to the penalty for a second, third, or other offense. The student does not begin each semester, term, or school year with a "clean" record.

G. STUDENT CODE OF CONDUCT VIOLATIONS AND SANCTIONS

I. ACADEMIC DISHONESTY OR MISREPRESENTATION

- A. Any act of academic dishonesty, including cheating, plagiarism, fabrication, or facilitating academic dishonesty.
- B. Intentionally providing false information to the University.
- C. Fraudulently obtaining or using an ID card, meal card, validation sticker, or other University document; or otherwise engaging in fraudulent or deceptive acts with the intent to defraud or deceive.

Sanctions for section I violations

Up to and including disciplinary suspension or expulsion from Claflin University.

II. SEXUAL CONDUCT

- A. Distribution of printed materials that are libelous, sexually explicit, pornographic, or that encourage violation of public laws or University regulations.
- B. Indecent exposure or conduct (including sexual activities to which all parties are consenting participants).
- C. Lewd, indecent, or obscene conduct or expression, or other moral or decency offenses. This includes peeping Tom and indecent language on a telephone, and crimes against nature.
- D. Sexual misconduct (including sexual activities which involve a non-consenting party or parties). This includes rape, sexual assault, and sexual harassment.

Sanctions for section II violations

Up to and including disciplinary suspension or expulsion from Claflin University.

III. THREATS AND VIOLENCE

- A. Assault - threatening bodily harm to include verbal threats or threatening actions.
- B. Assault with a weapon.
- C. Battery (physical violence) - an encounter with physical blows or other personal violence, which includes pushing, shoving, and other acts of physical abuse, between two or more persons.
- D. Battery with a weapon.

Sanctions for section III violations

Up to and including expulsion, this is mandatory when a weapon is involved.

IV. ABUSIVE LANGUAGE, VERBAL ABUSE OR HARASSMENT

- A. The public use of profanity and abusive language is prohibited.

- B. Intentional harassment of another student. Harassment includes, but is not limited to, threatening intimidating, verbally abusing, directing profanity at another person, impeding, telephoning, following or consistently bothering or annoying. Harassment may represent, but is not limited to, acts based on gender, race, religion, national origin, disability, or sexual orientation.
- C. Verbal harassment directed to a member of the University faculty or staff, including Campus Security and residence hall staff.

Sanctions for section IV violations

Up to and including disciplinary suspension for one year.

V. RESIDENCE HALL VISITATION: Being in areas of the residence halls that are not open to the public and/or in the company of a member of the opposite sex without specific permission from staff. Opposite sex residence hall visitation is permitted in the lobby areas only and during established visitation hours. Scope includes all hallways, stairways, student rooms, bathrooms, auxiliary rooms, or other residential units owned or administered by the University.

- A. Male student in women’s residence hall.
- B. Female student in men’s residence hall.
- C. Aiding or facilitating entrance or presence of unauthorized person(s) in the residence halls.

Sanctions for section V violations

Up to and including disciplinary suspension for one year. This may also result in suspension or dismissal from the residence hall.

VI. UNAUTHORIZED USE OF UNIVERSITY FACILITIES

- A. The unauthorized use of University facilities (including buildings and grounds), property, etc. of the University, its employees, or students.
- B. The use of classrooms for child care purposes seriously interferes with the principal function of the classroom, which is instruction, and is therefore prohibited. Child care is also prohibited in the residence halls.
- C. Unauthorized possession, duplication, or transfer of including residence shall rooms, permitting unauthorized access to keys by others, and failure to promptly surrender such keys when requested.

Sanctions for section VI violations

Up to and including disciplinary suspension for one year.

VII. UNDESIRABLE BEHAVIOR - No individual or group shall behave in a manner that interrupts or interferes with the rights and privileges of others, nor incites disrespect for University administrators, faculty and/or staff members, nor interferes with the maintenance of law and order.

- A. Civil Offense
- B. Theft - regardless of where it occurred, stealing from another person, agency, institution, or the University.
- C. Disorderly Conduct or Expression - conduct which is offensive or annoying to others or is disruptive to the rights of others. This includes

- disorderly behavior on or off campus while under the influence of alcohol or drug use.
- D. Disturbance of Campus Activities - obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.
 - E. Failure to Comply - Failure to comply with the directions of University officials in the performance of their duties; failure to promptly identify oneself to University officials when requested; failure to comply with disciplinary sanctions. This includes direct disobedience of a lawful order of a University official, as well as failure to evacuate a building during a fire alarm, or refusing to present an ID upon request.
 - F. Fire Safety Tampering-Turning in a false alarm, by any means, including a telephone call or warning device; theft of or tampering with fire safety equipment.
 - G. Arson - willfully setting a fire in University buildings or on University property.
 - H. Drug Possession or Using - Possessing, using, or the reasonable suspicion of possession or use of narcotics or drugs in any form. Reasonable suspicion includes the presence of odor of marijuana and/or drugs in any form. This also includes the possession of drug paraphernalia.
 - I. Drug Distribution and/or Sale of Narcotics or Drugs.
 - J. Altering, forging, possessing, duplicating or using (without authorization) documents or records belonging to the University.
 - K. Possession or use of alcoholic beverages, in opened or unopened container, any where on University-owned property, including cars and other vehicles.
 - L. Vandalism - deliberate or willful vandalism of or damage to property belonging to of any weapon or explosive on campus.
 - M. Bringing weapons or firearms on campus - unauthorized use, possession, or storage of any weapon or explosive on campus
 - N. Aiding and abetting, or failing to report, any of the above offenses.
 - O. Littering - students shall dispose of bottles, cans, paper and other forms of litter
 - P. Unauthorized Sale of Textbooks - The sale of a textbook by any student who does not own the book is prohibited without written authorization from the owner of the book. Books that are found should be turned in either to the Claflin University Bookstore or the Office of the Vice President for Student Development and Services.
 - Q. Misuse of Telephones and/or other Communication Technology, or otherwise misuse or abuse communication equipment at the University. Communication equipment includes, but is not limited to, computers, electronic mail, voice mail, pagers, beepers, printers, etc.
 - R. Computer Misuse – Misusing University computing resources by intentionally taking, receiving, accessing, altering, using, providing or in any way tampering with files, discs, programs, passwords, messages, or other hardware or software belonging to the University or other computer

users without their permission. Using computer resources to harass others or in ways which violate institutional computer use policies.

Sanctions for section VII violations

Up to and including disciplinary suspension or expulsion.

H. THE HEARING PROCEDURE

a. Procedure

1. Any student or group of students deemed in violation of any of the items in the Student Code of Conduct or any of the regulations and policies of the University shall have their situation reviewed under the established policies.
2. Three principals are normally involved in a hearing--the person filing the complaint, the person charged with the complaint, and the hearing body (either an administrative officer, or the Vice President for Student Development and Services).
3. The purpose of campus disciplinary proceedings is to provide an opportunity for any student or group of students charged with violating University regulations to be heard concerning the charges. Formal rules of evidence will not be applied.

b. Case Referrals

1. Any person may refer a student or a student group or organization suspected of violating the Student Code of Conduct to the Vice President for Student Development and Services. This is achieved by the person either submitting a letter or completing an Incident Report Form available from the following offices: Campus Security; The Vice President for Student Development and Services; Residential Life.
2. Any person may refer a student or a student group or organization suspected of violating Residence Life (Housing) policy to the Director of Residential Life or Campus Security.
3. The letter or completed Incident Report Form is to be returned within 24 hours of the incident to the Director of Residential Life for reporting housing violations, and to the Vice President for Student Development and Services for reporting Student Code of Conduct violations.
4. Any violations which occur in the residence hall which fall under the Student Code of Conduct shall be referred directly to the Vice President for Student Development and Services.

c. Informal Resolution Conference

1. If a student displays inappropriate conduct regarding the University's rules and regulations, an Informal Resolution Conference with the Vice President for Student Development and Services (or his/her designee) will be conducted to establish the facts. The incident may be resolved at this level, in which case the hearing body will set out how the matter has been resolved (in writing if

necessary) and the matter will be declared closed. If the matter is not resolved in the Informal Resolution Conference, it shall be referred to the Student Code of Conduct Judicial Board for resolution.

2. After conducting the Informal Resolution Conference, the Vice President for Student Development and Services has the authority to send the case directly to the Student Code of Conduct Judicial Board, or to another hearing authority.
3. Students or groups who decide not to respond or fail to contact the Vice President for Student Development and Services to reschedule the Conference will have their case forwarded to the Student Code of Conduct Judicial Board for inclusion in the formal judicial process.

d. The Student Code of Conduct Judicial Board

1. The Student Code of Conduct Judicial Board consists of nine members, four from the faculty appointed by the Vice President for Academic Affairs, two members appointed by the President, and three students appointed by the Student Government Association. In addition, two students, one faculty member, and one University staff member will serve as alternates. The Vice President for Student Development and Services shall be responsible for soliciting nominations, screening and training the Student Code of Conduct Judicial Board.
2. The duties of the Student Code of Conduct Judicial Board include hearing and rendering a decision in all cases referred to it under the Student Code of Conduct. This committee reports its decisions and recommendations to the Vice President for Student Development and Services, and, in appropriate instances, the Executive Committee.
3. Members of the Judicial Board who are charged with any violation of the Student Code of Conduct or with a criminal offense may be suspended from their judicial positions by the Vice President for Student Development and Services. Members found guilty of any such violation or offense may be disqualified from any further participation on the Judicial Board. Additional grounds for removal may be established by the Vice President for Student Development and Services.
4. All proceedings of the Student Code of Conduct Judicial Board will be taped and/or transcribed. There will be no taping or transcription during Judicial Board deliberations. The tape recording or transcription will not be retained once all appeals have been exhausted.

e. Reserved Powers

In all institutions involving the security of a large number of persons, key officials are empowered with emergency and/or reserved powers to act upon matters requiring immediate action. The Vice President for Student Development and Services is such a person at the University. When in the opinion of the Vice President for Student Development and Services, the welfare of the University will be adversely affected while awaiting the outcome of the judicial or review process; he/she is empowered to resolve the matter in the most expeditious manner possible.

f. Interim Suspension

The Vice President for Student Development and Services may suspend a student from the University for an interim period pending disciplinary or criminal proceedings, or medical evaluation. The interim suspension shall become immediately effective without prior notice whenever there is evidence that the continued presence of the student at the University poses a substantial and immediate threat to himself or herself, or to others. During the period of such a suspension, the student shall not, without prior permission of the Vice President for Student Development Services or his designee, enter or remain on the campus of Claflin University other than to attend the scheduled hearing. Violations of any conditions of the interim suspension shall be grounds for expulsion from the University. A student suspended on an interim basis shall be given a prompt opportunity to appear personally before the Vice President for Student Development and Services.

g. Sanctions

1. Letter of Reprimand: written notice that continuation or repetition of a violation of the Student Code of Conduct may be cause for additional disciplinary action.
2. Disciplinary Probation: status of student is declared probationary for a specific period of time. Students who have been placed on disciplinary probation are ineligible to hold an official campus elected and/or selected position, or to represent Claflin University in any capacity during the period of their probation. Violations of the terms of disciplinary probation, or any violation of the Student Code of Conduct during the period of probation, will normally result in suspension or expulsion from the University.
3. Restitution: repayment to the University or to an affected party for damages resulting from a violation of the Student Code of Conduct.
4. Disciplinary Suspension: exclusion from University premises, and other privileges or activities, as set forth in the suspension notice. During the period of such a suspension, the student shall not, without prior permission of the Vice President for Student Development and Services or his designee, enter or remain on the campus of Claflin University. Students suspended must vacate the premises as determined by the Vice President for Student Development and Services. All grades and fees for the current semester are forfeited. Students may be required to complete a period of disciplinary probation upon their return to the University.
5. Expulsion: permanent termination of student status, and exclusion from University premises, privileges and activities. The expelled person must vacate the campus within 24 hours and is not to visit the campus again without permission of the President of the University or his designee. All grades and fees for the current semester are forfeited.
6. Conditions/Restrictions: limitations upon a student's behavior and/or University privileges for a period of time, or an active obligation to complete a specific activity. This sanction may include, for example, restricted access to the campus or parts of campus, denial of the right to represent the University in any way,

- denial of housing, parking, or driving privileges on campus, required attendance at a workshop, participation in community service, etc.
7. Other Sanctions: other sanctions may be imposed instead of, or in addition to, those specified in sections (1) through (6) of this part.

h. Administrative Hearings Before The Judicial Board

1. The Student Code of Conduct Judicial Board or other designated hearing body, will be presided over by the Chairperson, or his/her designee. The presiding officer will have control over the proceedings and shall take whatever action is necessary to ensure an equitable, orderly, and expeditious hearing. The parties shall abide by the presiding officer's decisions except when a Board member objects to a decision to accept or reject evidence in which case the majority vote of the Board members present will govern.
2. In all proceedings before the Judicial Board or other designated hearing body, the student will be informed, in writing, of reasons for appearance before a disciplinary hearing body. The University will move as expeditiously as possible to hear the case.
3. Both the party charged and the party who filed the complaint may be present at the hearing, with or without counsel, and/or witnesses and such hearing shall be closed and confidential to all but the principal parties.
4. The student may appear in person to present his/her defense to the judicial body, and may call witnesses on his/her behalf. Should the student fail to appear, and it has been determined that he/she did receive the required notice of the hearing, the hearing will be held in his/her absence.
5. If the party who filed the complaint does not appear at the hearing and it has been determined that the party did receive the required notice of the hearing, the case, at the discretion of the Board, may be dismissed.
6. The student may be accompanied by counsel or a representative of his/her choice. This person may preferably be a member of the faculty, staff, or student body from the University. The counsel or representative may advise the student during the proceedings and make a closing statement on behalf of the student, but shall not be permitted to ask questions. The party charged shall notify the Chairperson of the Judicial Board or the hearing officer in writing, at least 24 hours prior to the hearing, if there will be representatives or witnesses and provide a list of representatives and witnesses with the notice.
7. Students may refuse to answer questions which might tend to incriminate them.
8. The student shall have the opportunity to raise questions regarding all witnesses to the hearing officer. No testimony shall be received in the absence of the accused student unless he/she willfully withdraws him/herself from the proceedings while such testimony is being offered.
9. Written testimony may be submitted in lieu of personal appearances if signed by the affiant and witnessed by a notary public. The party charged shall be notified in writing.

10. The student will be notified of his/her right to appeal the decision of the judicial body. Should he/she appeal, any action assessed by the judicial body shall be in suspension until acted upon by a higher body.

i. Appeals

Any student who feels that he/she has been treated unjustly as to the recommendation of the Judicial Board either on the issue of fact as the commission of the offense or as to the severity of the disciplinary sanction imposed may within two days of receipt of the decision appeal in writing to the President of the University. Should the right to appeal be exercised, the President shall appoint an ad hoc committee to review the case. Any action assessed by the Student Code of Conduct Judicial Board shall be held in abeyance until the President reviews the findings of the ad hoc committee and announces the final decision. No person or persons shall have the right to appeal a lawful sentence after he/she admits an act of wrongdoing or violation.

I. MASTERS OF SCIENCE DEGREE PROGRAM IN BIOTECHNOLOGY

Mission: “At the graduate level, students are provided instruction to enhance the analytical and comprehensive research acumen necessary for professional growth and leadership.”

Student Outcome Measures for the Masters of Science Degree Program in Biotechnology:

- Biotechnology MS students can demonstrate a general knowledge and understanding of the theory and practices inherent in biotechnology research.
- Biotechnology MS students can speak and write coherently and think critically and logically, using higher level thinking skills to analyze data, design experimental methodologies and solve problems.
- Biotechnology MS students are prepared for leadership and service and to pursue study in biotechnology or related areas at the graduate or professional level and/or seek gainful employment in academia, industry, private or governmental agencies.

a. Admissions Criteria

1. Application in writing submitted to the Office of Admissions accompanied by a \$40.00 application fee (\$55.00 for international students), which is neither deductible nor refundable. The application for admission and supporting credentials must be received in the Office of Admissions by the published deadline. Materials submitted in support of this application cannot be returned.

2. Possession of a bachelor's degree, or its equivalent, from an accredited college or university.
3. Two official transcripts of all previous academic work attempted beyond high school. Transfer credit posted on the records of other institutions is unacceptable and official transcripts of these credits must be supplied.
4. Official copies of satisfactory test scores (1000 total*) on the GRE general test. Students (including international students) already in possession of a graduate degree need not submit GRE scores
5. An overall grade point average of at least 3.0* (based on a 4.0 scale) on all of the applicant's previous work beyond high school.
6. At least three letters of recommendation from persons familiar with the applicant's personal and professional qualifications.
7. An essay describing the applicant's objective in undertaking graduate study.

Note 1. *Applicants with records of high quality who do not fulfill these requirements may be admitted based upon the satisfactory outcome of an on-campus interview with the M.S. Biotechnology Admissions Committee.

Note 2. International students from non-English-speaking countries must submit final scores on the Test of English as a Foreign Language (TOEFL). A score of 80 or higher (550 or higher prior to 2007) will be required.

b. Course Descriptions for Biotechnology Masters of Science Degree

Students must complete 16 credit hours in core courses, 10 credit hours in track-specific courses, 8 credit hours in faculty mentored research, and 4 credit hours in seminar for a total of 38 credit hours. Syllabi for these courses are included as Appendix VIII. The curricular order and a brief description of courses are specified below.

The Masters of Science Degree in Biotechnology is designed to be completed in two years.

First Year—Semester I (Nine Credit Hours Total)

Biotechnology I—Genetic Engineering, BTEC 501. Principles of molecular biology, recombinant DNA technology, transgenic organisms, AND cloning vectors. Three credit hours.

Laboratory in Genetic Engineering, BTEC 511. Laboratory applications of theoretical concepts taught in BTEC 501. Allows hands-on integration of

diverse biotechnical applications to answer research questions *via* laboratory investigation. One credit hour.

Research Ethics, BTEC 531. An overview of current scientific, regulatory and ethical issues in biotechnology. Ethical issues in research including, but not limited to: contemporary issues in bioethics, scientific misconduct, human subjects research, animal care, conduct of responsible research and requirements of regulatory agencies. Two credit hours.

Teaching & Leadership, BTEC 593. Workshops in strategies of teaching, learning, and leadership. Review of scholarship of teaching and learning. Practice in student-centered active-learning pedagogical methods. Assessment of student learning outcomes. Syllabi evaluation and design. Workshop in conflict resolution. Two credit hours.

Seminar I, BTEC 591. Department faculty give research presentations. Students read scientific papers related to the faculty research (literature review due at beginning of faculty research presentation). Students master critical reading of scientific papers. One credit hour.

First Year—Semester II (Nine Credit Hours Total)

Intro to Biostatistics, BTEC 560 An introduction to principles in statistics applicable to biotechnology. Two credit hour.

Seminar II, BTEC 592. This will be an introduction of seminar course. Each graduate faculty will present their work and foci of interest to the graduate students so they become familiar with the fields of research each faculty is involved. This will serve as a vehicle for the students to choose a mentor. One credit hour.

Biotechnology II—Protein Structure & Function, BTEC 502.
Prerequisite: BTEC 501 Basics of protein structure from amino acid composition to tertiary structure and oligomerization. Topics include: protein folds & molecular modeling, protein ensembles and dynamics, the Boltzmann equation, the unfolded state, protein folding and molecular origins of protein stability, catalysis, transition state theory, binding, organic and enzymatic reaction mechanisms, co-factors and redox reactions, steady state and pre-steady state enzyme kinetics, phylogenetics, protein relatedness, evolution of protein structure, mutation, adaptation, and structure-function relationships. Three credit hours

Laboratory in Protein Engineering, BTEC 512. Laboratory applications of theoretical concepts taught in BTEC 502. Allows hands-on integration of diverse biotechnical applications to answer research questions *via* laboratory investigation. LAB TECHNIQUES INCLUDE: protein expression, purification, directed evolution of protein function, and characterization of enzymatic properties. One credit hour.

Immunology & Pathobiology, BTEC 521. Advanced coverage of topics to include: molecular basis of generation of diversity, antigen recognition, cytokines and chemokines biology, xenotransplantation, vaccination, evolution of immune system, allergies and therapeutics, gene therapy, immunodeficiency. Introduction of Pathobiology that will cover an array of diseases in a systematic fashion. Mechanism of disease will be presented along with basic concepts of pathobiology.

This course will prepare students for future professional careers in biotechnology related fields, including Biomedical Research, Forensics Research, Pharmacology, Genetic Engineering, Recombinant DNA Technology, as well as other biomedical fields. Three credit hours.

Summer.

Research I, BTEC 599. Mentored original research in molecular biotechnology, plant biotechnology or bioinformatics toward production of a master's thesis. Two credit hours.

Second Year Semester I:

Seminar III, BTEC 691. Thesis draft preparation. Instruction in writing, organization, and presentation of master's thesis. Presentation of research to junior seminar class. One credit hour.

Research II, BTEC 699. Mentored original research in molecular biotechnology, plant biotechnology or bioinformatics toward the production of a master's thesis. Three credit hours.

Molecular Biotechnology Track

Cell Culture, BTEC X. Introduction to biological molecules using cell culture technologies. Introduction to bioreactor design and control, molecular and cellular bioseparations, and tissue and cellular engineering. TOPICS INCLUDE: drug discovery, elements of pharmaceutical patent law, design of clinical trials, and the FDA approval process. Introduction to and practical aspects of clinical pharmacology. Three credit hours.

Forensic Biotechnology Track

Introduction to Forensics, BTEC 610. Instruction in DNA fingerprinting, paternity identification, mitochondrial sequencing, Restriction Fragment Length Polymorphism analysis, Polymerase Chain Reaction, HLA-DQA1, DNA databases searches, forensic laws. Three credit hours.

Plant Biotechnology Track

Plant Tissue Culture, propagation and transformation, BTEC 640. Methods and research applications of plant tissue culture followed by principles and methods of in vitro plant propagation and transformation. Current advancement on the following topics will be covered in the course: plant tissue culture laboratory methods including media preparation and general lab practices; in vitro clonal propagation methods such as micropropagation, organogenesis and somatic embryogenesis for germplasm conservation and commercial scale production; crop improvement via doubled haploid breeding, protoplast technology and genetic engineering. This course will prepare students for future careers in plant biotechnology areas. Three credit hours.

Computational Biology/Bioinformatics Track

Bioinformatics, BTEC 620. Introduction to single and multiple sequence alignment algorithms, origin and development of scoring matrices, phylogenetics algorithms, bootstrapping, tree building, and critical tree

evaluation. Application of bioinformatics methods in secondary and tertiary structure prediction, homology modeling, and ab initio protein folding. Three credit hours.

Special Topic in Graduate Biotechnology 689: A specialization course to be taught by each mentor to their respective student/s so they become thoroughly specialized in the areas of their respective research. Two credit hours.

Second Year Semester II:

Seminar IV. BTEC 692. On alternating weeks, instruction and practice in preparation of industry, professional, and graduate school applications. Every other week, invited speakers from the Special Topics in Biotechnology Seminar Series. One credit hour.

Research II, BTEC 699. Mentored original research in molecular biotechnology, plant biotechnology or bioinformatics, culminating with the production of a master's thesis. Variable (2-3) credit hours.

Forensic Biotechnology Track:

Forensic DNA Analyses, BTEC 611. Instruction in DNA fingerprinting, paternity identification, mitochondrial sequencing, Restriction Fragment Length Polymorphism analysis, Polymerase Chain Reaction, HLA-DQA1, DNA databases searches, Forensic laws. Three credit hours.

Plant Biotechnology Track:

Plant Biotechnology, BTEC 650. Methods and research applications of plant biotechnology followed by genetic manipulation of plants. Students will gain advanced knowledge on plant biotechnology techniques and tools that can be applied for the following: to develop and improve plant biotechnology products; for improving quantity and quality of food, feed, fiber and renewable energy needs; the use of transgenic plants as bioreactors to produce pharmaceuticals such as vaccines and therapeutic proteins; and to clean environmental pollutants to provide healthy living environment. This course will also provide sound knowledge of genetically modified organisms (GMO) with reference to the legislative framework and economic, social, moral and ethical issues, thereby further preparing students for productive careers in the plant biotechnological sciences. Three credit hours

Computational Biology/Bioinformatics Track:

Advanced Computational Biology, BTEC 665. Molecular modeling and its applications. Two credit hours.

Thesis Preparation: Two credit hours.

c. Good-Academic Standing

Accepted degree seeking candidates must maintain a grade point average of 3.0 on a 4.0 scale and earn no more than one “C” in any course to remain in good academic standing. If the GPA falls below 3.0 **OR** two grades of “C” are earned at any time, the student will lose good academic standing and be dismissed from the program. Additionally, students must maintain grades “S” for satisfactory progress in all research courses.

*****Note:** **Preliminary testing will be conducted for all entering first year students. If remediation is deemed necessary by the MS faculty committee in any particular area, then the student must “audit” the appropriate undergraduate course(s) recommended by the MS faculty committee.**

d. Thesis Process

Students must author, present publicly, publish and defend a master’s thesis describing an original research project. The guidelines for the thesis document will be provided by the Biology Department.

Selection of Research Mentor

During the first eight weeks of the first year, Graduate Faculty will present their research. Two weeks following these faculty presentations students will submit their top three choices for a research mentor via email to the Chair of the Biology Department. During this same two week period, students are expected to interview with each of their three potential mentors. Every attempt will be made to give students their first choice. Decisions will be made on the basis of lab funds/space availability. In cases where funds/space is limited preference will be given to those who have the highest aptitude for the selected field of research.

Thesis Committee Selection

Before the beginning of the second semester of the first year, students must select three(3) faculty members to serve on their Thesis Committee (two committee members must be chosen from the Graduate Faculty and one committee member may be from any other department with eligibility to teach at the Master’s degree level) in addition to their research mentor. The research mentor serves as the chair of the committee. This committee will serve for the final evaluation of the master’s thesis.

Prospectus

At the end of the first year, students must submit a research proposal/prospectus to their Thesis Committee describing the research that they will be undertaking for the summer, and final year.

Thesis Defense

Students must present their research in a closed thesis defense with their Thesis Committee acting as the sole evaluators of the final thesis by **March 1st** followed by an open public forum before **April 15th**. No Thesis Defense can be scheduled until after all three committee meetings. At the end of the final year, by **April 15th**, students must submit a final thesis in writing to their Thesis Committee.

Please refer to the timeline below!

Thesis Timeline:

| Objective | Deadline |
|--|---|
| Year One | |
| Choose 3 potential mentor and interview each | 3rd Friday in October |
| Assignment of Mentors | Before October 31st |
| Selection of Committee Members | Before December 15th |
| Literature Review | Before January 31st |
| Research Presentation | Before January 31st |
| Prospectus | Before January 31st |
| Research Plan | Before January 31st |
| 1 st Committee Meeting | First week of June |
| Year Two | |
| 2 nd Committee Meeting | Last week of August |
| 3 rd Committee Meeting | 2nd week of November |
| Completion of research activities | At the discretion of Mentor |
| Initial draft of Thesis | February 20th |
| Thesis Defense | March 1st |
| Public Presentation | Before April 15th |
| Final Draft of Thesis Submission | April 15th |

*** This timeline is a major component of the degree requirements!**

e. Seminar Presentation

All M.S. students will be required to make one seminar presentation to the School of Natural Sciences and Mathematics during one of the regularly scheduled seminar periods.

f. Graduation

When a student has completed all coursework at a satisfactory level (refer to Good-Standing above) and has successfully defended and published his/her Thesis as evidenced by the affixed signatures of the student's Thesis Committee the student will be recommended to the University faculty for graduation.

g. Transfer Credits

The School of Natural Sciences and Mathematics does not accept graduate transfer credits for our M.S. in Biotechnology Degree.

h. Non-Degree Applicants

Persons who wish to enroll in graduate coursework but who do not wish to pursue the M.S. degree may do so under the conditions described below. Such application should not be made with the Degree Application form but should, instead, use the "Application for Non-Degree Enrollment."

i. Certified Educators

Teachers and/or administrators holding at least the bachelor's degree but not intending to earn the M.S. degree may seek enrollment in graduate course work with a graduate non-degree enrollment privilege.

j. Transient Students

Students in good-standing who are enrolled in graduate degree programs at other institutions may seek permission to enroll in graduate courses intended for transfer credit under our non-degree enrollment privilege.

k. Others

Professional, practitioners, and others who hold at least the bachelors' degree in an appropriate field may seek permission to enroll in M.S. degree coursework under the non-degree enrollment privilege. Such coursework may be sought for licensure, professional development or personal interests.

l. Committee

The MS in Biotechnology Admissions Committee will be made up of the following individuals: Drs. Verlie Tisdale, Omar Bagasra, Rebecca Bullard-Dillard, Angela Peters, of Claflin University and Drs. Kim E. Creek and Michael Matthews from the University of South Carolina.

The MS in Biotechnology Faculty Committee will comprise of the following individuals: Drs. Verlie Tisdale, Rebecca Bullard-Dillard, Omar Bagasra, Angela Peters, Kamal Chowdhury, Jianguo Chen, Naseema Hoosein, Randall H. Harris, David McLean, and Nicholas Panasik.

m. Enrollment and Grading System

- 1) Nine (9) credit hours is considered a full-time schedule. Permission to enroll in more than twelve (12) credit hours requires a written request by the student to and approval from the Chair of the Biology Department.
- 2) Students whose graduate work is interrupted must consult with the Chair of the Biology Department to determine the details and plans for their matriculation.
- 3) Grades earned are based on the following system:
 - A = 4 quality points per semester hour
 - B = 3 quality points per semester hour
 - C = 2 quality points per semester hour
 - D = 1 quality point per semester hour
 - F = 0 quality points per semester hour

No degree credit is earned for C, D and F grades received in graduate level courses. If these grades are earned, the student must repeat the course for a passing grade. However, C, D and F grades are apart of the student's permanent record and is averaged into the student's Grade Point Average (GPA). When a course is repeated, the higher grade is averaged into the GPA.

A grade of "I" indicates that required work within a course was incomplete. This incomplete work must be completed by the end of the first nine weeks within the following semester. "Incompletes" not resolved by the end of the first nine weeks will automatically become FAILURES. To remove "Incompletes", the faculty member must report the change on a Change of Grade Form to the Office of Admissions and Records.

A grade of "W" indicates that a student withdrew from a course after the add/drop period of each semester.

The grade of "X" is given to those students who are passing the course but do not take the final exam. Students are given three weeks into the following semester to take the final exam.

If a student earns a grade of "C" or lower and maintains a 3.0 GPA, then the student must repeat the course and earn a higher grade. If the course is a prerequisite for other courses, then the student must repeat the course and earn a higher grade before they can enroll in the next course within the series.

The Biotechnology graduate faculty can recommend the dismissal of a student who demonstrates an inability to perform satisfactorily at the graduate level.

Students must complete and comply with all the administrative requirements to apply for graduation. However, each student must first schedule a candidacy verification meeting with the Chair of the Biology Department.

J. MATRICULATION

Students are expected complete all the master's degree requirements within a five year period.

K. LIBRARY AND LEARNING RESOURCES

Students will have full access to the library resources at Claflin University which currently holds over 156,000 books, 62341microforms, 698 audio-visual items, 25,000 e-books and subscribes to 366 serials. The university meets the standards of the American Library Association Standards for College Libraries. Students and faculty also have access to the library through the university's website. All students will be issued a Claflin University email address. Dr. Mohammed Yousef will be appointed to serve as the Graduate Reference Librarian to assist the MS students. Students will be given orientation by the staff of the Claflin University library on how to retrieve information from the library resources. Students will also have benefit of the resources of the University of South Carolina and other universities in the state through the South Carolina Statewide Borrowing Agreement (Appendix X) and the Community Higher Education Council (CHEC) Interlibrary Loan Agreement (Appendix XI).

The Library's Science collection supports courses in, among other, Biology and related disciplines. Currently the Library has around 850 books in the field of Biology and Biotechnology. These books are part of a general collection that comprises a total of over 156,000 volumes. More volumes are being continually added to the collection. Each year funds will be used to add more on-line subscriptions and e-journals by using general library funds In addition to the funds specifically requested for library acquisitions as a line item in the MS program budget.

Some major reference works on the subject available in the library are:

- *Dictionary of Microbiology And Molecular Biology* (2001)
- *Dictionary of Gene Technology: Genomics, Transcriptomics, Proteomics* (2001)
- *A Dictionary of Biology* (2000)
- *Encyclopedia of Agricultural, Food, And Biological Engineering* (2003)
- *Encyclopedia of Biodiversity* (2001)
- *Encyclopedia of the Biosphere* (2000)
- *Encyclopedia of Chemical Technology* (2004)
- *Encyclopedia of Environmental Microbiology* (2002)
- *Encyclopedia of Polymer Science and Technology* (2003)
- *Oxford Dictionary Of Biochemistry And Molecular Biology* (2000)
- *The Facts On File Dictionary Of Biochemistry* (2003)
- *The Porphyrin Handbook* (2003)

- *Wiley Encyclopedia of Molecular Medicine* (2002)
- *World of Microbiology and Immunology* (2003)

a. Periodicals: Print

The library subscribe to about 450 periodicals. Of these, 42 pertain to Biological Sciences and Biotechnology. Some selected print subscriptions are:

- American Biology Teacher
- American Journal of Botany
- American Journal of Public Health
- Annual Review of Microbiology
- Annual Review of Plant Physical & Plant Molecular Biology
- Applied Immunohistochemistry & Molecular Morphology
- Biochemistry
- Cell
- Environmental Science and Technology
- Immunity
- Infection & Immunity
- Journal of Applied Gerontology
- Journal of Bacteriology
- Journal of Biological Chemistry
- Journal of Biology
- Journal of Computational Biology
- Journal of Eukaryotic Microbiology
- Journal of General Physiology
- Journal of Physical Chemistry A
- Journal of Physical Chemistry B
- Nature
- Perspective in Biology and Medicine
- Plant Cell
- Plant Physiology
- Proceedings of National Academy of Sciences
- Quarterly Review of Biology
- RNA
- Science

b. Periodicals: Online

The library subscribes to several online multi-disciplinary and subject-specific databases that provide full-text articles on a variety of subjects including Biology and Biotechnology. Among them is Gale's *InfoTrac OneFile* which covers over 4,900 full-text periodicals. It indexes 67 Biology and Biotechnology periodicals with full-text coverage from the following 24 publications.

- Biological Bulletin
- Biological Sciences Review

- Biomechanics
- Biomedical Market Newsletter
- Biomedical Safety & Standards
- Biopharm International
- Bioresearch Monitoring Alert
- Bioscience
- Bioscience Technology
- Biotech Business
- Biotech Business Week
- Biotech Equipment Update
- Biotech Financial Reports
- Biotech Patent News
- Biotech Week
- Bioterrorism Week
- Bioworld Financial Watch
- Bioworld Week
- Human Biology
- Monkeyshines on Health and Science: Biology
- Perspectives in Biology and Medicine
- Physiological and Biochemical Zoology
- Quarterly Review of Biology
- Worldwide Biotech

Another database, EBSCO's *Academic Search Premier* contains over 4,000 active full-text periodical titles. Its full-text coverage includes periodicals that are indexed in major scholarly Science databases. For instance, it provides full-text articles from 522 periodicals that are indexed in the Biological Abstracts database; 806 periodicals that are indexed in ISI Science Citation Index; 1,521 periodicals that are indexed in MedLine; and, from 274 periodicals that are indexed in Chemical Abstracts.

Other major science databases are also available to the Claflin community as part of statewide arrangements namely DISCUS (Digital Information for South Carolina Users) and PASCAL (Partnership Among South Carolina Academic Libraries). The selected ones are:

- Health and Wellness Resource Center
- CINAHL (Resource for Nursing and Allied Health)
- Clinical Pharmacology
- Computer Source (Information and trends in high technology)
- MEDLINE
- Psychology and Behavioral Sciences

All databases are available campus-wide through the Internet. With the exception of the newly-acquired ones, all can be accessed from off-campus sites through a password. The new ones will also soon be available for remote access.

c. Interlibrary Loan Service

For materials not locally available, the library provides the interlibrary loan service to all students and the faculty. Through its affiliation with the Southeastern Library Network (SOLINET), it obtains materials from other libraries upon request by patrons.