

Diné College

Master of Science in Biology

Graduate Student Handbook

School of Science, Technology, Engineering & Mathematics (STEM)

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INTRODUCTION

We want to emphasize two particularly important points:

- You need to become thoroughly familiar with this Graduate Student Handbook and the on-line DC Academic Catalog.
- As an advanced student and professional, it is ultimately **<u>your responsibility</u>** to know and adhere to the policies, regulations, guidelines and deadlines described in this handbook and the aforementioned Catalog. Please do not rely solely on other students, your major advisor, other faculty, or various staff to provide up-to-date information

MS Biology Application Procedures and Graduation Requirements

Overview of the program:

The Master of Science in Biology program will develop student's knowledge and research skills in an area of laboratory and/or field research in the biological sciences available at Diné College. The program will prepare students to pursue careers in the biological and related science areas, as well as continue graduate and/or professional medical education. Students first contact the faculty in the lab of their interest, and if accepted by the lab PI research graduate faculty, they may apply to the program. Prerequisites will be a BS in biology or similar science, adequate to begin graduate coursework in the lab discipline. In the first year of the two-year program, students take two Orientation to Graduate Research courses, BIO 501 and 503, 3 hours each, consisting of advanced concepts in experimental design and statistical analysis, grant writing, ethical conduct of research, and publishing papers. Also taught will be Diné cultural knowledge as pertains to science and research. Students begin their thesis research the first semester, and take lab "seminar" courses and background theory courses during all four semesters. During the first semester, the student's graduate Committee is assembled to plan and the two-year program and oversee the student's progress for graduation.

To receive a master's degree at Diné College, you must complete a planned group of courses from one or more subject areas, consisting of 30 units of graduate-level courses.

You must complete:

- All requirements for your specific academic plan. This will include a thesis.
- All graduate work with a cumulative grade point average of at least 2.5.
- All work toward the master's degree must be completed within six consecutive years. The six years begins with the semester and year of admission to the program.

Complete individual plan requirements.

Minimum Units for Completion	30
Additional Admission Requirements	Admission requirements over and above admission to Diné College are required (see below).
Emphasis or Coursework Required	An emphasis and coursework is required for this degree.
Thesis	Thesis is required.

Oral Defense	Oral Defense is required.
Research	Individualized research is required.

Admission requirements over and above admission to Diné College are required.

- Diné College Graduate Online application is required for all programs.
- Undergraduate degree from a regionally accredited institution or WES (world education services) with evaluation
- Grade Point Average (GPA) of 2.5 (scale is 4.00 = "A"), or the equivalent.
- Transcripts

Individual program admission requirements include:

- 3 letters of recommendation
- Personal statement or essay
- All applicants are expected to make email contact with potential faculty members in the department BEFORE APPLYING. Applicants should only apply if a lab mentor agrees to support the applicant.
- Knowledge of biology at the baccalaureate level, and as appropriate for the lab the student will be working with.

Master's Requirements

This Master's degree requires 30 units distributed as follows:

- Two Common Course Requirements: 6 units
- o Coursework from your laboratory field of study: 12 units
- Mentor Lab Seminar: 6 units
- Completion of a Thesis: 6 units

I. Year One, each semester: 8-9 credits:

1. Orientation to Graduate Research:

A. BIO 501, 3 hr, Experimental Design / Statistical Analysis, 3 credits. Instructors: Dr. Oleksandr Makeyev. Fall semester.

B. BIO 503, 3 hr, Elements of Scientific Endeavor, 3 credits. Instructors: Dr.'s Shazia T. Hakim and Don Robinson. Spring semester.

2. BIO 698, 2-3, Graduate Lab Seminar: each semester, students take this course with their lab mentor. Dr.'s Hakim and Skaltsas, plus non-grant supported faculty Dr. Makeyev; additional faculty as their labs develop for MS theses research.

3. Special topics or background course, 500-600 level, 3 credits/semester: as required by student's Graduate Committee. Course descriptions below.

4. General STEM seminar: each semester, no credit but required attendance

- II. Year Two, each semester: 7-9 credits:
 - 1. Lab Seminar, BIO 698, 1-3 credits/semester;
 - 2. Special topics, 500-600 level, 3 credits/semester;
 - 3. General STEM seminar: each semester, no credit but required attendance
 - 4. Thesis Research, BIO 699, 3 credits per semester.

Details of courses:

Two Common Course Requirements:

BIO 501, BIO 503 (6 units)

Biology coursework and/or electives from one or two related fields, with the recommendation of your research committee (12 units): Select four of the following from your lab mentor:

Dr. Shazia Tabassum Hakim's main areas of discipline expertise, and courses:

- 1. Immunodiagnostics
- 2. Medical Virology
- 3. Advanced cellular and molecular biology
- 4. Cell and tissue culture
- 5. Antimicrobial chemotherapy

BIO 548 Immunodiagnostics, 3 cr

BIO-533 Medical Virology, 3 cr

BIO-518 Advanced cellular and molecular biology, 3 cr

BIO 539 Cell and Tissue culture, 3 cr

BIO-536 Antimicrobial chemotherapy, 3 cr

Dr. Demetra Skaltsas' main areas of discipline expertise, and courses:

- 1. Plant pathology
- 2. Mycology
- 3. Medical mycology
- 4. Plant Biology

AGR 533, 3 cr, Plant Pathology. ENV 599, 3 cr, Vegetative Assessment. BIO 511, 3 cr., Fungal Biology BIO 570, 3 cr, Medical Mycology

Dr. Oleksandr Makeyev's main areas of discipline expertise, and courses:

- 1. Electroencephalography
- 2. Computer Algorithm Processing of EEG data
- 3. EEG Electrode and Hardware Design
- 4. Use of EEG in Diagnosis and Treatment of Epilepsy

BIO 601, 3 cr, Thesis, Dissertation or Special Project I.

BIO 602, 3 cr, Thesis, Dissertation or Special Project II.

BIO 603, 3 cr, Thesis, Dissertation or Special Project III.

BIO 604, 3 cr, Thesis, Dissertation or Special Project IV.

Completion of a Thesis:

BIO 699, for the research, writing, and oral defense of an approved thesis. Please note that you may only count 6 units of thesis credit toward your degree.

ADMISSION TO BIOLOGY GRADUATE PROGRAMS

The School of STEM offers the Master of Science in Biology. The Master of Science program provides training in the biological sciences through coursework and research experience.

Entry into the Biology graduate program requires on-line application to the Graduate College and review by the Biology Graduate Program Committee.

General requirements for admission to the Graduate College are given in the DC Catalog (on-line) as well as at the Graduate College's website. A completed application to the Department's Graduate Program consists of: the Graduate College's on-line application form; satisfactory course grades; three letters of recommendation addressing qualifications for advanced studies; a Personal Statement outlining the student's interests, professional goals, and research and teaching experience.

The most important point about the review process: admission depends upon the availability of a Faculty Advisor/Major Professor who has expressed a willingness to accept a student into her/his research group. Prospective students should contact faculty directly by e-mail and/or phone, and be prepared to discuss their backgrounds, specific areas of interest, and career goals with potential faculty advisors. Of course, funding for the student, adequate space, research resources and equipment must also be available. We recommend a visit to campus by applicants, where possible.

Students may be accepted and graduate credit earned by students holding Regular, Conditional, or Nondegree status. **However, graduate degrees are awarded only to students holding Regular Admission Graduate status**. This status is conferred when a student has fulfilled all requirements for admission to both the Graduate College and to the specific program within the Department.

Conditional acceptance status may be assigned to a student who, for some reason, is not qualified for Regular Graduate status. It may be that the student lacks prerequisites for the program, did not file all necessary transcripts, has a low cumulative undergraduate GPA (i.e., less than 2.5), or has some other deficiency. Specific requirements for removal of Conditional status and elevation to Regular status will be established in consultation with the major advisor and Director of Graduate Studies prior to acceptance and will be included in the acceptance letter from the Department.

Non-Degree status is for students who do not intend to pursue a degree program or who are not yet ready to apply to a degree program. **Note:** no more than 12 credit hours of graduate credit earned while the student has Non-Degree status may be applied toward a graduate degree. Also, please understand that students who have completed hours while a non-degree student and who have fully completed application procedures for Regular Admission status <u>are not</u> assured admission to the graduate program of the Department. They must be considered for admission along with all other applicants.

BIOLOGY GRADUATE PROGRAM COMMITTEE (BGPC)

Oversight of graduate studies in the Department resides with the Biology Graduate Program Committee (BGPC), its Chair of Graduate Studies in Biology, and the Dean of the School of STEM. The BGPC is chaired by the Chair of Graduate Studies in Biology. BGPC membership includes appointed voting Faculty Members of the School of STEM who teach graduate courses and have thesis students in the program, and a Graduate Student Member with voting rights (including admissions decisions) who is recommended by the Biology Graduate Student Association (BGSA) and approved by the BGPC Chair. The BGPC membership may also include a Postdoctoral Researcher with voting rights (including

admissions decisions) who is recommended by faculty or postdoctoral researchers of the School of STEM and approved by the BGPC Chair.

The BGPC is responsible for periodic review of policies and procedures concerning the graduate programs of the School of STEM. Revisions to policies and procedures are subject to approval by the School Dean, ratification by the faculty, and final approval by the University Graduate Program Committee and Dean of the Graduate College. The BGPC is also responsible for monitoring the timely completion of degree requirements as outlined in the student's Program of Study and this Handbook in conjunction with the student's Major Professor and Advisory Committee.

Admissions are overseen by the BGPC, which recommends admission of applicants to specific programs/labs, and recommends to the School of STEM Dean candidates for different types of financial support, such as Graduate Teaching Assistantships, Graduate Research Assistantships, and Fellowships. Applications for admission are normally reviewed in the Spring Semester (**application deadline is May**), of each academic year for admission the following Fall. Recommendations for admission and financial support are made to the STEM Dean for final action.

Flow Chart for Admissions:

Prospective Students contacts a faculty advisor / major professor to work in their lab for their thesis research and graduate training, and submits their resume, letter of interest, transcripts, and letters of recommendation to the faculty advisor \rightarrow

Faculty advisor selects the student and forwards a Letter of Permission to the Biology Graduate Program Committee, along with the student's supporting documents \rightarrow

The BGPC and Chair recommends to the Dean of School of STEM that the prospective student be admitted to the MS Biology program to work with the faculty advisor \rightarrow

The Dean of the School of STEM writes a Letter of Acceptance to the MS Biology program for the Diné College Office of Admissions \rightarrow

The Diné College Office of Admissions reviews all the documents for admissions to the College (transcripts, etc.), and together with the Letter from the Dean, accepts the student to the MS Biology program \rightarrow

GETTING STARTED

Several items require attention of new Graduate Students upon their arrival. These and more will be covered at required Fall orientation programs of the Graduate College and Department.

• Graduate Assistantships and Fellowships. Most Biology graduate students are offered some type of financial aid as part of their admission. Common sources of financial support are Graduate Teaching Assistantships (GTA), Graduate Research Assistantships (GRA), and Fellowships. All are competitive, and all pay a living stipend, as well as provide tuition remission (Warrior Tuition Scholarship). If you have been awarded a GTA, GRA or Fellowship, please do the following:

Get a College Student ID card

- E-mail: see IT
- Mailbox: Graduate students will have a mailbox in the department mailroom. See the STEM office staff.
- Office space: Teaching Assistants have priority for shared departmental office space outside research labs. This space will be assigned by STEM Office staff. Consult with your Faculty Advisor regarding desk space and phone in her/his research area.
- **Photocopies:** See the department office staff for current procedures.
- Keys: can be checked out by staff in the STEM Office
- New Hire Packet: If you are supported on a Graduate Teaching or Research Assistantship, you will need to complete an application with the Human Resources Department. See STEM office staff for instructions.
- Parking: Permits to park on campus are purchased at Security.
- **Pay Day:** Alternate Thursdays are pay days. Direct deposit is encouraged. Your pay statement is on-line through the Human Resources web site.

FACULTY ADVISOR

Throughout your studies you will work most closely with your Faculty Advisor ("major professor"). This relationship will be established by mutual agreement based on your shared interests and available resources. Your Faculty Advisor is designated prior to your arrival, and this advisor will ordinarily be permanent; however, the student may change advisors if deemed appropriate after consultation with the current advisor, the potential advisor, and the BGPC. It is imperative that you work closely (and communicate often) with your Faculty Advisor to plan your program of study to insure degree requirements are met in a timely manner and in accordance with the policies of the School and College.

Faculty Advisors will have individual expectations or lab policies for students training in their research program. You should discuss these right away with your advisor so that you both have a clear starting point, realizing that changes may evolve as your graduate program develops. Regular, clear and open communication can prevent misunderstandings with your advisor (and your Graduate Advisory Committee). Mutual clarity in expectations is very important; do not disregard topics such as:

- mutual expectations of you as a trainee and your advisor as a mentor,
- good practice and ethics in scientific research,
- human subjects and associated regulations (DC IRB),
- safety and other required training for handling radioactive and/or hazardous materials,
- maintenance of data notebooks, and ownership of data and other research materials,
- order of authorship on future manuscripts and presentations,
- financial support: stipend (amount & years), travel to meetings, supplies, etc.
- post-degree letters of reference/recommendation and assistance with placement.

GRADUATE ADVISORY COMMITTEE COMPOSITION

The student's Graduate Advisor Committee is assembled with several Dine' College graduate faculty in the discipline area of the student's research, including his or her lab mentor, and also including a possible one to two external research faculty from an outside research university or industry. In total, we recommend 3 biology faculty on the committee and one Diné Studies or similar faculty, for a total of 4 faculty on the committee. The Graduate Advisory Committee is responsible for the overall two-year plan of development and the timeline requirements for graduation.

The **majority** of members of a Graduate Student Advisory Committee must be faculty with **voting status** in the STEM School. Biology faculty holding the following titles have voting status: Assistant, Associate and Full Professor.

<u>Faculty Emeriti</u> of the School of STEM are considered "inside" the department for the purposes of a Graduate Student Advisory Committee.

Non-faculty (e.g., persons from agencies or independent research organizations with relevant experience or skills) may serve on committees as long as the structure of the committee meets Graduate College requirements.

MASTER OF SCIENCE DEGREE IN BIOLOGY (M.S.)

Faculty Advisor and Graduate Advisory Committee

A Faculty Advisor for a student is selected at the time a student is admitted into the M.S. program. The student, Faculty Advisor, and the BGPC participate in the process. The advisor and student then arrange a class schedule for the first semester. As indicated earlier, it is possible for the student to change advisors after consultation with the current advisor, the potential advisor, and the BGPC.

Before mid-semester of the first semester in residence, a Graduate Advisory Committee should be formed by the student. The graduate student, in consultation with the advisor, should select a group of potential committee members who can best advise the student in the chosen area of research. The student should then discuss her/his plans with these faculty members to determine their willingness to serve on the Graduate Advisory Committee. The committee is composed of at least four members: the Faculty Advisor and two other faculty members, with at least one of the latter being from the School of STEM. The student submits a letter or email (cosigned by the faculty advisor) to the Chair of the BPGC, suggesting the committee members to be appointed.

First Committee Meeting: A committee meeting should be held before the end of November. All students must ensure that advisory committee meetings are confirmed one month ahead of the scheduled date. The first meeting is to plan a program of courses and discuss a thesis prospectus. This prospectus provides the committee with the following information:

- The major questions or hypotheses to be addressed
- The significance of these questions
- The extent of current knowledge in the area of research
- The materials and methods to be used to answer the questions
- The schedule for completion of stages of the work

Before the first meeting of this committee, the student, in consultation with the Faculty Advisor, should

fill out their MS Biology checklist, with their advisor's signature and date.

Copies of the MS Biology Checklist should be provided to each committee member **<u>before</u>** the meeting. After it is signed by members of the Graduate Advisory Committee and Chair of the BGPC after consultation with the BGPC, the original Checklist will be placed in the student's permanent file (located in the STEM Office). Please make copies of this form for yourself, your major professor, and your committee. Changes to your Checklist must be approved by your advisor, committee members and Chair of the BGPC.

Subsequent Meetings and Annual Review: Students will arrange a meeting of the Graduate Advisory Committee at least once per academic semester in order to assess progress, discuss research results, and consider future research or plans for degree completion and financial support.

A statement made by the Faculty Advisor and in concurrence with the committee's view, will clarify whether progress has been satisfactory or unsatisfactory in the preceding year. If progress is unsatisfactory, the student will be given a warning and may be placed on academic probation; an improvement plan will then be agreed upon and signed in consultation with the student, advisory committee, and Chair of BGPC. The underperforming student will be given one semester to improve their performance. If progress remains unsatisfactory upon re-evaluation and no extenuating circumstances explain the situation, the BGPC may recommend dismissal from the degree program and/or may recommend removal of financial support (GA, Fellowships, Tuition Waivers, etc.). Students in this situation have recourse to College grievance procedures.

Course Requirements: As stated above, students in the M.S. program must complete a minimum of 30 credit hours to earn their degree.

Petitions for exceptions to the program of study stated on the Master of Science Program Checklist must have prior approval and bear the signatures of the student's advisor and Chair BGPC. If the student's Graduate Advisory Committee determines a student to be deficient in some area(s), undergraduate courses to correct the deficiency may be required. Undergraduate courses required by a student's committee to correct deficiencies (except for the above-mentioned two 400-level classes) are not to be included in the required 30 graduate credit hours for the M.S. degree. All matters concerning change in program plans require approval by the Chair of BGPC.

Students are expected to complete courses listed on their program before taking non-required courses. Students may not enroll in courses during the summer, other than for research or thesis credit, without the explicit consent of their Graduate Advisory Committee.

Seminar Requirements: All graduate students are expected to attend general departmental seminars while in residence unless they have a verified course or teaching conflict. The exposure to a wide range of ideas and an opportunity to meet and interact with other scientists is a valuable experience for graduate students, both when the speaker is in one's own field and when she/he is not. Furthermore, all members of the department, including graduate students, have a professional responsibility to show interest in speakers whom the department has invited to present their work, and to be involved with entertaining the visitor.

Research Requirements and Thesis: M.S. students must submit a thesis based on original research and must complete 6 credit hours of Thesis (BIO 699). The student must be continuously enrolled from the time they begin their thesis work until they defend their thesis and graduate.

The thesis should be of such quality that major portions of it are publishable in a national research journal in the field of study. Writing the thesis as a research paper or papers for submission to a specific journal is strongly recommended.

It is the student's responsibility to be familiar with the Graduate College's standards for finishing their master's thesis. Plan ahead to make sure you meet ALL of the deadlines including the Application for Graduation, Thesis Format checks, and scheduling your defense. Before the thesis is submitted to your Graduate Advisory Committee, it must have been reviewed by your Faculty Advisor, revised by you, and approved again by the Faculty Advisor. The initial submissions of the thesis to the committee needs to be made well in advance of the Final Oral Examination (minimum of two weeks) in order to allow for further revisions based upon the committee members' recommendations. The thesis, in as close as possible to a final form (including all figures, tables, and references) must be distributed to all committee members at least seven working days before the date of the Final Oral Examination. Any committee member who considers the thesis needs significantly more work may demand that the Final Oral Examination be rescheduled. If the entire committee concurs, then a new date for the oral will be set at that meeting.

M.S. students are required to present results of their research in a formal presentation to a departmental group or at a scientific meeting. When possible, the final oral exam (see below) should be held immediately following such a presentation.

When the thesis is approved, you must follow the rules of the Graduate College for Electronic Publication of the Thesis/Dissertation. The School of STEM kindly requests (but does not mandate) that an informal paper-bound or hard-bound courtesy copy of the Thesis be submitted to the Departmental Office once the final document has been submitted to the Graduate College. Additional bound copies may be made at the student's discretion for distribution to your Major Professor, other committee members and family. You must submit the final approved electronic copies of your thesis to the Graduate College during the same semester that you successfully defended.

Final Oral Examination (Thesis Defense): Each student will take this examination. It is designed to test a student's knowledge in biology **and** competence in research, as well as the adequacy of the thesis. The examination is given by all members of the student's Graduate Advisory Committee. This exam typically lasts 2-3 hours, with about half the time devoted to knowledge in biology and about half to research and thesis. All faculty members of the Department are free to attend the oral examination and may ask questions if invited to do so by the Chair of the Graduate Advisory Committee.

In preparation for this examination the student must observe the following points:

- A copy of the thesis in virtually final form must be distributed to all committee members at least seven working days before the date of the examination.
- The date for the examination must be arranged by the student so that all members of the committee can attend. Such a date must fall within the Fall or Spring semesters (excluding Final Examination Week), and faculty must have a confirmed time, date, and place in writing from the student.
- Students must be enrolled during the semester in which they submit the thesis for at least 1 credit of BIO 699.
- The Application for Graduation should be completed by the deadline posted by the Registrar.
- With meetings of your Graduate Advisory Committee scheduled each academic year, each member should be familiar with the research progress and with early drafts of the thesis. Frequent consultation with your advisor and committee members is encouraged throughout your research and preparation of the thesis.

• Prior to the Final Oral Examination, the student will provide to each committee member a list of courses taken for the M.S. degree; i.e., a current copy of your approved Program Checklist.

Questions in the final oral examination will evaluate the candidate's understanding of the basic principles of biology and specific aspects of the designated discipline. Questions on research and thesis may relate to points of clarification, analytical procedures, basic biology and systematics of the species studied, possibilities for future research and publication, and areas where research could be improved. Each committee member will keep notes on all questions asked, record satisfactory or unsatisfactory for the answer, and make a general summary of the student's performance. A pass or fail vote is recorded by secret ballot <u>before</u> any discussion. A student must obtain at least two-thirds of the votes in favor of passing the oral exam and accepting the thesis. The Chair of the student's Graduate Advisory Committee (the Faculty Advisor) will report the result of this exam in writing to the Chair for Biology Graduate Programs and to the Dean of the School of STEM. If the final oral examination is failed it may be repeated only once.

Evaluation of Progress and Grade Requirements: The student's Graduate Advisory Committee will meet to evaluate the student each semester. In addition, the Registrar and Graduate College will monitor student transcripts on a continuing basis and evaluate all students for Satisfactory Academic Progress. A student is expected to maintain a grade point average of 2.5 or better throughout the course work for the M.S. degree, and to make significant progress in research each semester.

Students are expected to complete courses listed on their approved program plan before taking other courses. A progress report must be on file with the Biology Graduate Program Committee before evaluation concerning continued funding can take place, on or around February 15th. A copy will be placed in the student's permanent file.

No more than 6 credit hours of course work with a grade of "C" may be used toward the M.S. degree requirements. Accumulation of 6 credit hours of graduate course work with a "C" grade, or earning any grade below a "C" in a graduate class, will result in the student being placed on Academic Probation by the Graduate College.

A student placed on probation will <u>not</u> be permitted to register for classes, may lose their financial aid eligibility, and <u>must</u> meet with their advisor to discuss the steps necessary to remediate problems that led to probation. This meeting should result in a written action plan describing the remediation steps to be taken. The plan must be signed by the student, the advisor, and the Associate Chair for Biology Graduate Programs, who will then send it to the Graduate College for final approval. If the plan is approved by the Graduate College, the registration hold will be lifted and the financial aid hold may be modified. Successful completion of the plan in subsequent semesters will return the student to Good Academic Standing.

If a student does not meet the terms of their approved action plan in the following semesters, or fails a second time to maintain Good Academic Standing, one or both of the following actions will be taken:

- The Biology Department may initiate academic dismissal by notifying the student and the Graduate College in writing of the program's intent to recommend dismissal.
- The student will be blocked from future enrollment.

A terminated student may petition the Graduate College for readmission based on their individual circumstances. It is the student's responsibility to articulate their case and explain why an exception is

warranted.

Time Limits. You must complete all requirements for the M.S. degree within a 6-year period, including time as a non-degree seeking graduate student if you are applying courses taken as a non-degree student to your Program Checklist. If you take courses from other institutions and transfer them to your program at Diné College, they must also be taken within the 6-year period.

An extension of the time to complete degree requirements (of up to one year) may be granted if there are compelling extenuating circumstances. Extensions may be granted for a variety of reasons which may include, but are not limited to, job relocation, military duty, pregnancy, illness, a serious accident, divorce, or other personal tragedies within the immediate household.

If you wish to petition for an extension of the 6-year limit, you must request an extension Your advisor and the Chair for Graduate Studies in Biology must support your petition by signing the form.

Credit earned at Diné College at a date prior to the six-year period in which the degree is earned may be used for the degree if approved by the Faculty Advisor and Chair for Graduate Studies. Faculty within a graduate program/department assume the responsibility to ensure these courses demonstrate the current core learning competencies, expectations, and criteria for the student's degree or certificate program. The age of the course work under consideration, or the year taken, may be a factor in the decision as to whether or not the coursework is applicable to a graduate student's program.

Credit Load: To be considered a Full-Time Graduate Student, you must carry 7-9 graduate credits per semester (Fall & Spring). Students on graduate assistantships or fellowships (20 hours per week employment) are <u>required</u> to carry 9 (and no more than 12) credit hours to qualify for their Graduate Assistantship (GA) employment.

CONTINUOUS ENROLLMENT POLICY and LEAVE OF ABSENCE POLICY for GRADUATE STUDENTS

Graduate students in degree programs that require continuous registration may be granted a Leave of Absence for up to one academic year by the Graduate College, upon the recommendation of the student's advisor and department graduate coordinator. A leave will be granted under conditions requiring the suspension of activities associated with the thesis/dissertation or coursework. A leave will be granted for extraordinary reasons only, such as health or medical problems or military duty. Normally, time-to-degree requirements are not suspended during a Leave of Absence. The right to use University facilities and/or faculty time is suspended during a Leave of Absence. No form of graduate assistant support will be provided during the Leave of Absence. If an extension of time to complete the degree is needed, it should be requested in a petition for extension of time through the Graduate College.

International students (students attending NAU on an F-1 or J-1 visa) are generally not eligible for a leave of absence due to INS regulations. Contact the International Student Adviser for any exceptional circumstances.

Leave of Absence requests must be filed no later than the last day for adding classes during the semester in which the leave is to start, and cannot be granted retroactively. Students on an approved Leave of Absence may not be required to apply for readmission.

Students who are absent beyond the end of an approved Leave of Absence will be required to apply for readmission as a graduate student and to the appropriate academic department. A Leave of Absence may be extended beyond one year only under exceptional circumstances. Such an extension must be requested on the Leave of Absence form.

A Leave of Absence form, available on the Graduate College site, requests:

- Student name, student ID number, local address and phone
- Statement of request for leave and justification by student.
- Semester leave begins and semester of student's return to program.
- Approval by advisor, department graduate coordinator and Graduate College.

FINANCIAL AID

Although it is the goal of the Department to provide financial support for all students admitted into the graduate program, we recognize that certain students may have their own means of support, and that many worthwhile research projects do not have large resource requirements. When the above conditions can be demonstrated (as determined by the Biology Graduate Program Committee and approved by the School Dean), the student will be considered for admission into our graduate program on an equal basis with those who would receive institutional support.

Admission to the graduate program in biology without support does not imply that financial support will necessarily be provided in the future. Such students would be considered on an equal basis along with all new applicants.

Evaluation for continued financial support is a part of the yearly progress meetings and is based on previously established criteria outlined in pertinent sections above. To be considered for continued support, the student must complete a Financial Aid Request with the Biology Graduate Program Committee and the Financial Aid Office, by February 15th.

The Biology Graduate Program Committee evaluates applicants and makes recommendations for the various types of financial aid to the School Dean, who then makes a formal recommendation to the Graduate Dean. The Graduate Dean certifies the official appointments and notifies the Financial Aid Office at the College.

Note to graduate faculty reviewing this Biology Graduate Handbook for Diné College: The following section may be optional:

Teaching Assistantships:

Teaching Assistantships may be available to graduate students in the Biology Graduate Program. These TAs include a Warrior Tuition Scholarship for 100% payment of tuition (but not associated fees). A minimum semester and cumulative grade point average of 2.5, Good Academic Standing, plus satisfactory progress toward your degree program are required for continued support.

Teaching assistants are expected to devote 20 hours per week to their appointment, including teaching, office hours, preparations, testing and grading, and set-up and take-down of laboratories, and should expect to have 12 contact hours of teaching per week. They must have an excellent command of spoken English and of the relevant subject matter. Teaching Assistants must enroll in BIO 795, Internship in

College Teaching (1 credit hour), in their first semester of the assistantship. This credit may count toward the required total credit hours for the M.S. and Ph.D. degrees. Teaching assistants must carry a course load of 9-12 hours per semester to qualify as full-time students. All teaching assistants must attend the University Graduate Assistant Orientation each Fall prior to the start of classes.

Guidelines are provided to Teaching Assistants every Fall concerning the policies and expectations as determined by the Department and the Graduate College. See the "Graduate Assistantship, Traineeship, and Fellowship Handbook", available at: <u>http://www2.nau.edu/gradcol/GA/GA_Handbook.pdf</u>

Teaching Assistants play a substantial role in the training of undergraduates, and this responsibility is not to be viewed lightly by the Teaching Assistant. For this reason:

- Teaching Assistants are expected to be in residence and available for assignment <u>throughout the</u> <u>dates specified in their contract</u>, beginning with the first and continuing through the last day of their contract. <u>The contract period normally begins with the full week prior to the start of Fall</u> <u>classes</u>, and includes several mandatory orientation, TA training and other activities.
- The Graduate College provides a mandatory orientation each Fall for the purpose of familiarizing the Teaching Assistants with the goals of the University and the Assistant's role in achieving these goals.
- Course coordinators will hold regular meetings with their Assistants. These meetings deal with organizational details, various aspects of good teaching techniques and course content, including the preparation and grading of assignments and examinations. Attendance at these meetings is mandatory.
- Course coordinators will evaluate all Teaching Assistants through no less than two classroom visitations. A standardized evaluation form, Bio Form 12, Faculty Evaluation of Graduate Assistants Form (available in the Biology Office) is used to report the results of these evaluations. Each semester an evaluation will be placed in the Teaching Assistant's individual file, and a copy given to the Teaching Assistant.

Research Assistantships:

A variable number of research assistantships are available from research funds granted to the university and under the direction of individual faculty members. Recommendations for these appointments are made by the faculty members who administer these funds. Inquiries about availability should be made to the faculty doing research in the area in which the student is interested. These RAs include a wage for the commitment of 20 hours per week during the academic year. The distribution of effort within these 20 hours is determined by the faculty overseeing the student in their lab. A full-time course load of 7-9 credit hours per semester is required for full-time status. A minimum semester and cumulative grade point average of 2.5, plus satisfactory progress in your degree program are required for continued support.

Warrior Tuition Scholarship:

Warrior Tuition Scholarships for all MS Biology students are requested by our Graduate Biology Program Committee and Chair and Dean and Provost to the President. If funded, these waivers are based on the relative financial need and academic performance of the students. Students who wish to apply for this type of support should indicate this on the annual Financial Application/Progress Report Form.

Duration of Support: Graduate students in a master's program may receive two full academic years (four semesters) of support, regardless of its source, as long as they are making satisfactory progress toward completion of their degree requirements. Satisfactory progress is evaluated by the student's Graduate Advisory Committee and the Biology Graduate Program Committee. In unusual cases the Graduate

College Dean may allow an extension. For such an extension, the student must be in good standing and be prepared to explain why a delay in the completion of the degree is due to circumstances beyond the control of the student. The student petitions the BGPC before it allocates its assistantships. The department forwards the petition to the Graduate College with its recommendation.

Regardless of where the student is in her/his program, only students who perform their duties well and make good progress in their program will be considered for continued support after their first year in a program.

EVALUATION OF TAS AND RAS

Teaching Assistants are evaluated each semester by course coordinators or faculty involved in the course. A standardized form for evaluation, Faculty Evaluation of Graduate Assistants Form, is available in the Department office. These completed forms are submitted to the Chair of Graduate Studies and the student's advisor, and are placed in the student's file.

Research Assistants are evaluated by their research supervisor, typically their Faculty Advisor. A summary of the student's progress and the Major Advisor's assessment of such progress is included in the Financial Request/Progress Report Form, which is completed each year before February 15th, and placed in the student's Departmental file.

STUDENT'S ROLE IN THE DEPARTMENT

The Department intends to provide students with professional training for professional life in teaching, research, and service. Students acquire these skills through interactions with faculty in formal courses, seminars, completion of thesis and dissertation research, publishing in the best possible scientific journals, service on faculty committees, attendance at departmental seminars, attendance and presentation of papers at scientific meetings, and interactions with visiting scientists. Evaluation concerning a student's leadership qualities and professional capabilities will often rely on the student's participation in these diverse activities. Such qualities may be reflected in letters of recommendation composed for students.

The Dean and the Faculty of the School of STEM value the contributions that graduate students make toward the operation of the School. The graduate student performs an important role in the School by providing suggestions concerning all phases of departmental operations. A professional relationship between faculty and graduate students is encouraged at all times. Students may also contribute by inviting visiting scholars and helping to entertain them during discussions, at mealtimes and in receptions.

Students carry significant responsibilities in Departmental teaching, research, service and mentoring undergraduates. Some are employees of the School, College, Reservation and State, and all are representatives of the School on campus, at other institutions, and at professional meetings. Therefore, graduate students are expected to exhibit high professional standards, to be knowledgeable about departmental affairs, faculty and student activities, and in general to conduct themselves in a professional manner. Implicit in admission to the Graduate Program is the expectation that graduate students will develop and demonstrate a strong sense of professionalism and academic integrity. The faculty-graduate student relationship is unique in the academic environment and it must not be compromised by unprofessional conduct.

Success in science requires tremendous dedication to research. The competition for jobs is extreme and

is based largely on the quality of independent research and the dedication perceived by those professors most closely associated with a graduate student.

A graduate student's research sponsor also has responsibilities to the College and often to a funding agency. College time and grant funds are expected to lead to the steady accumulation of relevant and reproducible data. Graduate student research is often, therefore, both an essential part of the student's education as well as part of the research sponsor's and the College's obligation to the larger scientific community.

Biology Graduate Student Association: The BGSA is formally recognized by the Associated Students of Diné College (ASDC), the College administration, the School Dean, and the School Faculty as an official body through which graduate students in the School may express opinions and convey suggestions to the Faculty. The President or other elected official of BGSA will approach the Chair for Graduate Studies with student concerns, and work to effect positive change through consultation with the School Dean, the Faculty, and the Graduate Dean, if so suggested by the Chair for Graduate Studies. If BGSA's elected representative is so advised by the School Dean, concerns will be presented to the faculty at faculty meetings. A BGSA representative will be permitted to attend all Faculty meetings except at the discretion of the School Dean when unsuitable topics such as personnel matters are to be discussed. All students are encouraged to attend general meetings of the BGSA because issues affecting graduate students are discussed and votes taken on these issues. A BGSA representative will be elected to serve on certain departmental committees. One student may be elected to any committee the Faculty deems appropriate. Faculty Chairs on these committees will notify the BGSA representative concerning meeting times, dates, and the agenda for the meetings.

Graduate Student Awards:

Graduate students' achievements may be recognized by annual awards presented as part of College Awards Week. In 2000 the number of awards within the department grew to five. Descriptions of each award, details on the nomination process, eligibility, etc., will be provided each spring. Recognition includes a cash award, certificate and the recipients' names engraved on plaques permanently displayed in the School lobby.

The five awards are:

- Emeritus Faculty Award for Graduate Student Contributions.
- Outstanding Graduate Student Paper Award.
- Graduate Alumni Award for Outstanding Master's Thesis
- Graduate Alumni Award for Outstanding Doctoral Dissertation.

EXPECTATIONS AND RESPONSIBILITIES OF TEACHING ASSISTANTS AND FACULTY IN THE DEPARTMENT OF BIOLOGICAL SCIENCES

Teachers in general have long adhered to a sound and honorable set of ethical standards and these traditional standards continue to apply in today's world. In an effort to circumvent any misconceptions or misunderstandings about what is expected of us, it is appropriate to state formally these basic principles that have been informally incorporated in the academic way of life for so long.

Above all, a single factor binds us together: we are professional biologists. This fact transcends individual differences in interests, expertise, degrees, or experience, and forms the basis for expectations and responsibilities related to our respective positions in the Department.

As professionals, we have a special obligation to encourage the free pursuit of learning in students, to preserve intellectual freedom, to practice intellectual honesty, to respect the rights, the dignity and cultural backgrounds of others, to acknowledge the right of all to express differing opinions in a responsible manner, to promote conditions that foster the free exchange of ideas, and to maintain the orderly processes that make freedom of inquiry and instruction possible.

As teachers, we represent the College, the School and the profession. As such we must hold before students, as best we can, the scholarly standards of our discipline. We must make every reasonable effort to foster honest academic conduct and to assure that our evaluation of students reflects the students' true merit. We must recognize that students are individuals and are entitled to an atmosphere conducive to learning and to fair treatment in all respects of the teacher-student relationship. It is important to present a professional image in the classroom and in other interactions with students and colleagues. This includes proper attire, personal cleanliness, and basic common courtesies. In all contact with students we should use socially acceptable behavior and language. Under no circumstance should teachers participate in activities that might be construed as a conflict of interest such as dating or engaging in amorous relationships with a student enrolled in their lecture or laboratory course, or who is under their supervision. By adhering to the above standards of professional conduct we will be in a sound position to carry out our responsibilities for the health and well-being of the Department.

GRIEVANCE PROCEDURES

Students with significant complaints about any aspect of their training in the department should address such complaints directly to the person causing the grievance, in order to reach a settlement. If such an approach fails to achieve the desired results, the student's Faculty Advisor should be consulted and should attempt to broker an agreeable settlement. If the grievance is not resolved at this point the student should involve the School Dean. When none of the above attempts are successful, an *ad hoc* Grievance Committee will be appointed by the Dean of the School. If the grievance is not against the student's advisor, the advisor will chair the committee. Two additional members will be selected by the student, and two members will be selected by the Dean of the School. The Dean will replace the student's advisor if the advisor is the apparent cause of the grievance. After deliberating on the grievance, the committee will notify the student orally and in writing of its decision to either accept the grievance, and to correct the matter, or to find the grievance unfounded.

Should the student remain unsatisfied with a decision at the Departmental level, following appeals are to be directed to the Dean of the Graduate College.

Grade appeals are handled by policies and procedures found here:

POLICY AND FUNDING CHANGES

Changes relating to student support or policies beyond the control of the School and College can occur. Under these circumstances the School cannot be held legally responsible for any difficulties a student incurs.

Diné College does not discriminate on the basis of age, sex, race, religion, color, national origin, disability or veteran status in admissions, employment, and educational programs or activities which it

operates as required by Title IX of the Education Amendments of 1972, Title VI and Title VII of the Civil Rights Act of 1964 as amended; Section 504 of the Rehabilitation Act of 1973 as amended; the Civil Rights Act of 1991; the Americans with Disabilities Act of 1990; and the Age Discrimination in Employment Act of 1967. NAU's policy on nondiscrimination is further augmented by the voluntary affirmative action policies of Executive Order 11246, Section 503 of the Rehabilitation Act of 1973, and the Vietnam Era Veteran's Readjustment Assistance Act of 1973 as amended. You may inquire about

the application of these regulations or the Diné College Safe Working and Learning Environment Policy by visiting the Office of Equity and Access website.