SDM: The Predental, Premedical & Preoptometry Option

If you are an undergraduate student, who enrolled in CALS for the Fall 1996 Semester or thereafter and are considering a medical career, please note the following guidelines for the new non-degree SDM concentration.

Competition for admission to professional schools (medical, dental, optometry) is very keen and students must be prepared with a career alternative in case they are not accepted into these advanced programs. Further, because most of the required courses for entering professional schools can be met by most 4-year degree programs in CALS, you can select a career option that both (1) serves as an exciting alternative to professional school and (2) fulfills the many requirements for admission. Typically, science options listed below for each department are suitable because they meet the minimal requirements for most health professional schools. Students should be aware that individual professional schools may require coursework beyond minimum requirements. It is recommended that students, early in their academic careers, determine the exact admissions requirements for the schools to which they expect to apply. Considerable information is available in the library, on the World Wide Web (http://www.cals.ncsu.edu/ncsu/booklet/), from your departmental undergraduate coordinator, and in the Zoology Undergraduate Office in 2115 North Gardner Hall.

Thus, the new SDM program requires that you choose a departmental curriculum from the list below. For example, if you wish to focus your studies in Microbiology, then SMB will become your major, you will receive a faculty adviser from Microbiology, and Predent/Premed/Preoptometry (SDM) will become your non-degree concentration that alerts your adviser of your goal (SMB/SDM). Note that you must select a departmental degree program that supports the SDM concentration by the time you have earned 45-50 hours (3 semesters) or you will be prevented from registering until you do so. You must earn a 2.8 GPA at the end of your first year (30 hrs) in order to retain the SDM concentration (2.9 as a sophomore; 3.0 as a junior; 3.1 as a graduating senior). Again, competition for admission to professional schools is keen; these are minimal GPA hurdles.

**College of Agriculture and Life Sciences (Non-Degree Tracks)**

- **A** Agriculture, Undeclared
- **BL** Life Sciences, Undeclared
- **AL** Unclassified in Agriculture and Life Sciences

(For students who have a previous degree and only need to complete required coursework for entrance into veterinary and human health professional schools.)

**Department of Agricultural Extension Education**

- **AEC** Extension Education - Communications Concentration
- **AED** Agricultural Education – Teacher Certification Option
- **AEE** Extension Education
- **AEX** Extension Education - Agricultural Extension Concentration

Careers: secondary agriculture teaching, county and area extension agents, community college agriculture instructors, public relations in agriculture positions, agricultural government agencies, commodity groups, technical writing

**Department of Agricultural and Resource Economics**

- **ABM** Agricultural Business Management
- **BBM** Agricultural Business Management - Biological Sciences Concentration

Careers: agribusiness management, sales, marketing, finance, brokerage and merchandising; farm management, farming, research, biotechnology, pharmaceutical and health care sales and marketing

- **ESE** Environmental Sciences - Economic Policy Concentration

Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law

- **NRM** Natural Resources - Economics and Management Concentration

Careers: resource policy analyst, resource management or education
Department of Animal Science
SAS Animal Science (Science Option)
IAS Animal Science (Industry Option)
Careers: animal industry production, research and development, animal feeds/foods/drugs marketing and sales, livestock management, basic or applied research, consulting services

Department of Molecular and Structural Biochemistry
BCH Biochemistry
Careers: research or production with government agencies, drug companies, food industries, agribusiness companies and biotechnology firms, education, administration, technical sales

Department of Biological and Agricultural Engineering
AET Agricultural and Environmental Technology
*BE Biological Engineering
Careers: biomedical and biological engineering, design and development, facilities engineering, waste management consulting, environmental engineering, food processing engineering, agricultural machinery sales and service, irrigation engineering, agribusiness management/sales

*Please note: Students interested in the Biological Engineering (BE) program, which has concentrations in Agricultural Engineering (BEA), Bioprocessing Engineering (BEP), and Environmental Engineering (BEE), must be admitted into the College of Engineering Biological Engineering Undeclared (BEU) program before matriculating to the BE program. For more information on admissions eligibility criteria, contact the College of Engineering’s Academic Affairs Office (919-515-3693, 120 Page Hall) or the Undergraduate Coordinator of Biological and Agricultural Engineering (919-515-6716, 108 D.S. Weaver Labs).

Biological Sciences Program
BLS Biological Sciences
BSN Biological Sciences - Nutrition Concentration
Careers: teaching, lab technicians, technical writers, drug and technical sales, conservationists, biological researchers in numerous areas, biotechnologists

Department of Botany
SBO Science - Botany
Careers: basic and applied research, education, administration, sales, service, management, consultation, conservation, inspection, resource management

Department of Crop Science/Soil Science
TAA Technology - Agronomy, Basic Sciences Concentration
TAB Technology - Agronomy, Agronomic Business Concentration
TAC Technology - Agronomy, Crop Production Concentration
TAT Technology - Agronomy, Turfgrass Management Concentration
TSS Technology - Agronomy, Soil Science Concentration
Careers: consultants, extension agents, golf course superintendents, lawn care specialists, soil conservationists, technical sales representatives, agronomists, plant and soil scientists, waste and water quality management, weed specialists

Department of Food Science
SFS Science - Food Science
TFS Technology - Food Science
Careers: quality assurance, production management, new product/process development, regulation of standards/food laws and safety, technical sales, packaging, market research, water supplies, waste management

Department of Horticultural Science
SH Science - Horticultural Science, General Concentration
THG Technology - General Horticulture Concentration
THL Technology - Horticultural Science, Landscape Horticulture Concentration
Careers: landscape design and contracting, garden center management, greenhouse production, fruit/vegetable production, nursery production, pest management, sales representative/technician, research and service with government and industry

**Department of Microbiology**

**SMB** Science - Microbiology  
Careers: medical and basic research, immunology, quality assurance and sales in pharmaceutical or food companies

**Department of Poultry Science**

**SPS** Science - Poultry Science  
**TPS** Technology - Poultry Science  
Careers: positions with national and multinational corporations in the management, marketing, production, basic and applied research and processing of poultry-based food products

**Department of Sociology and Anthropology**

**ASA** Science - Applied Sociology  
**ACR** Science - Criminology  
Careers: social services, personnel relations, law, business management, government, survey research

**Department of Soil Science**

**NRS** Natural Resources - Soil Resources  
**NRW** Natural Resources - Soil and Water Systems  
Careers: resource policy analyst, resource management or education, soil scientist/conservationist, land use management, water quality or waste management, environmental technicians

**ESS** Environmental Sciences - Soil Science Concentration  
Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law

**Department of Zoology**

**SZO** Science - Zoology  
Careers: basic and applied research with government and industry, education, technical sales; ecologists, conservationists, zoo technicians and keepers, resource management

**ESC** Environmental Sciences - Ecology Concentration  
Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law
Required/Recommended Courses for Preprofessional (SDM) Students

The courses listed below are considered minimum requirements for students applying to medical, dental and optometry schools:

**English Composition Credits**
ENG 101 Academic Writing and Research ................................................................. 4

**Humanities/Social Sciences (as specified in the General Education Requirements) .......... 21**
#Optometry schools require one or two courses in psychology

**Physical Sciences**
*BCH 451 Principles of Biochemistry .......................................................................... 4
CH 101 Chemistry - A Molecular Science ................................................................. 3
CH 102 General Chemistry I Laboratory ................................................................. 1
CH 201 General Chemistry II ..................................................................................... 3
CH 202 General Chemistry II Laboratory ................................................................. 1
CH 221 Organic Chemistry I ....................................................................................... 4
CH 223 Organic Chemistry II ..................................................................................... 4
MA 121 Elements of Calculus or
MA 131 Analytic Geometry and Calculus A ............................................................. 4

Some medical schools may require two or more calculus courses; if so, consider:
MA 131 Analytic Geometry and Calculus A and ....................................................... 4
MA 231 Analytic Geometry and Calculus B ............................................................... 4

or
MA 141 Analytic Geometry and Calculus I and ....................................................... 4
MA 241 Analytic Geometry and Calculus II and ....................................................... 4
MA 242 Analytic Geometry and Calculus III ............................................................. 4

#ST 311 Introduction to Statistics ................................................................................ 3

PY 211 College Physics I and ...................................................................................... 4
PY 212 College Physics II ............................................................................................ 4

or
PY 205 Physics for Engineers and Scientists I and ................................................... 4
PY 208 Physics for Engineers and Scientists II ........................................................... 4

**Biological Sciences**
BIO 181 and BIO 183 or ZO 150 and ZO 160 ............................................................ 4
#MB 351/352 General Microbiology and Lab ............................................................. 4
**ZO 250 Animal Anatomy and Physiology and Lab .................................................. 4
***ZO 212 Basic Human Anatomy and Physiology and Lab or
ZO 250 Animal Anatomy and Physiology and Lab .................................................. 4

*Recommended for optometry; required by some medical schools
**Recommended for dental, medical, and optometry
***Required by UNC Dental School
#Required by optometry schools
A STRATEGY FOR SUCCESS FOR PREMEDICAL STUDENTS

Over the past seven years the number of students applying to medical school has been increasing, making it more difficult for applicants to gain admission. For the 1989 entering class, 59% of the 26,915 candidates who applied were accepted. By 2002, however, the number of applicants had increased to 33,625 with only a 48% acceptance rate. We have seen the same increase in applicants from NCSU. Even though 42% of our applicants over the last twenty years have been accepted into medical school, you need to start now to prepare yourself for a successful application process. Your acceptance will be based on several factors but there are five major areas for you to consider:

1. **Academic Record.** The mean grade point average (GPA) for matriculated applicants over the last two years was 3.56. Your transcript will be reviewed for the number of credit hours carried each semester (and the relative difficulty of the course load) to see if you have the knowledge and study skills needed to progress through medical school. In addition to the required science courses, humanities and social sciences are strongly suggested; a course to develop effective writing skills also is recommended.

2. **Scores on the Medical College Admissions Test (MCAT).** The MCAT provides a standardized measure of academic performance for all examinees under equivalent conditions. The test is composed of four sections: Verbal Reasoning, Physical Sciences, Biological Sciences, and Writing. The MCAT will assess your abilities in scientific problem solving, critical thinking, and writing as well as your understanding of scientific concepts and principles. To do well on the MCAT, you are encouraged to strengthen your reading, reasoning and problem-solving skills.

3. **Exposure to the Health Care Environment and Research.** Successful applicants have thoroughly investigated the field of medicine, and you should get experience in health care and research. You can strengthen your application by volunteering at a local hospital and in other areas of health care such as public health departments, nursing homes, and doctors’ offices; explore research opportunities on/off campus.

4. **Participation in Campus and Community Activities.** Admissions committees must look beyond grades and MCAT scores to select their students because there are many well-qualified applicants. Leadership, service, and interest in others are qualities admissions committees will evaluate and they do this by looking at your extracurricular activities. Don’t wait until it’s too late--get involved now in extracurricular activities.

5. **Letters of Recommendation.** Most medical schools require at least three letters of recommendation from faculty who are familiar with your academic abilities. These letters are very important because they will offer insight into your abilities as a student as well as your personality and character. It will be to your benefit to get to know some faculty members well enough to ask them for these letters when needed.

**Note:** A faculty committee is available to assist students in the preprofessional school application process and to review and send letters of evaluation to the schools designated by each applicant. For additional information, contact the committee’s program associate, Ms. Nancy Cochran, 2115 Gardner Hall, 515-5978.
Trends Related to Medical School Applications for First-Year Entering Classes 1996-97 Through 2002-03

<table>
<thead>
<tr>
<th>Entering Year</th>
<th>Individuals Filing Applications</th>
<th>Number of New Entrants</th>
<th>Percent of Applicants Enrolled</th>
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<tbody>
<tr>
<td>1996-97</td>
<td>46,968</td>
<td>16,200</td>
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<tr>
<td>1997-98</td>
<td>43,020</td>
<td>16,165</td>
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<td>1998-99</td>
<td>41,004</td>
<td>16,170</td>
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<td>1999-00</td>
<td>38,529</td>
<td>16,221</td>
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<td>2000-01</td>
<td>37,092</td>
<td>16,301</td>
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<td>2001-02</td>
<td>34,859</td>
<td>16,365</td>
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<tr>
<td>2002-03</td>
<td>33,625</td>
<td>16,448</td>
<td>48</td>
</tr>
</tbody>
</table>
Medical School Applicants
2002

Mean Undergraduate GPA of Accepted Students
3.59

86% of Matriculates had GPAs of 3.26 or Above

1.5% of Accepted Applicants had GPAs Lower than 2.75
UNC Dental School
2002

819* Applicants for 75 Seats

*many are out-of-state applicants;
60 of the seats reserved for
in-state residents

Mean Undergraduate GPA
of Accepted Students
3.57

DAT Scores
18-19
(Scoring Range 1-30)

(Science Score Average = 19)
Dental School Applicants
2002

7,859 Applicants for 4,238 Seats

55 U.S. Dental Schools

Mean Undergraduate GPA of Accepted Students: 3.4

DAT Scores
(Scoring Range 1-30)

Average DAT of Accepted Students: 19
Optometry School Applicants 2002-2003

2,037 Applicants for 1,200 Seats

17 Schools & Colleges in US and Puerto Rico

Mean Undergraduate GPA of Accepted Students 3.30

OAT Scores (Scoring Range 200-400)

Average OAT of Accepted Students: 321
## Information on 2002-03 First-Year Class

### Duke University

<table>
<thead>
<tr>
<th>Number of</th>
<th>In-State</th>
<th>Out-of-State</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
<td>294</td>
<td>4,729</td>
<td>5,023</td>
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<tr>
<td>Applicants Interviewed</td>
<td>64</td>
<td>802</td>
<td>866</td>
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<tr>
<td>New Entrants</td>
<td>17</td>
<td>83</td>
<td>100</td>
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### East Carolina University

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<th>In-State</th>
<th>Out-of-State</th>
<th>Total</th>
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<tbody>
<tr>
<td>Applicants</td>
<td>628</td>
<td>464</td>
<td>1,092</td>
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<tr>
<td>Applicants Interviewed</td>
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<td>0</td>
<td>434</td>
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<tr>
<td>New Entrants</td>
<td>72</td>
<td>0</td>
<td>72</td>
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### UNC – Chapel Hill

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<th>Number of</th>
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<th>Out-of-State</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
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<td>2,280</td>
<td>3,024</td>
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<tr>
<td>Applicants Interviewed</td>
<td>435</td>
<td>103</td>
<td>538</td>
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<tr>
<td>New Entrants</td>
<td>143</td>
<td>17</td>
<td>160</td>
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</tbody>
</table>

### Wake Forest University

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<th>Number of</th>
<th>In-State</th>
<th>Out-of-State</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicants</td>
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<td>4,442</td>
<td>5,014</td>
</tr>
<tr>
<td>Applicants Interviewed</td>
<td>139</td>
<td>365</td>
<td>504</td>
</tr>
<tr>
<td>New Entrants</td>
<td>38</td>
<td>70</td>
<td>108</td>
</tr>
</tbody>
</table>
Predent/Premed/Preoptometry Options

I. The Facts

A. For 2002 medical entering class, 33,625 applicants for approximately 16,200 seats

B. MCAT exam focuses on critical thinking, writing, interpretation, comprehension and factual knowledge

C. Take courses that require critical thinking and writing skills (i.e., philosophy, logic, advanced writing, and interdisciplinary courses)

D. Gain significant knowledge of the field by volunteering to work in hospitals, clinics, nursing homes, Hospice, Red Cross, dental and optometric offices

E. Take advantage of research opportunities on or off campus

F. Join clubs associated with your field – Strongly recommend Premed/Predent Club
II. The SDM Option: Your Back-Up Insurance!

A. You must be enrolled in a departmental curriculum such as biochemistry, zoology, microbiology, botany, animal science, food science, etc.

B. SDM is an advising option you can elect but your departmental major is what will be on your diploma. For example:

Degree major=SMB (Microbiology)
Non-degree Advising Option=SDM

Your designation=SMB/SDM

C. Look on your name tag. If it says SDM or SPV, then you are not in a degree program. Today, we want you to commit to a specific major so that you get into the appropriate biology and math required of that specific major. For example, if you elect Zoology then you would take ZO 150 in the Fall and not BIO 125 or BIO 181. You must commit to a major!!

D. You must have a departmental major by the time you have earned 45-50 hours. If not, you will not be able to register in CALS

III. Medical, Veterinary and Graduate Strategies

A. You need an excellent performance and key courses before your senior year

1. To file an application
2. To be prepared for admissions exams

B. Take full loads (at least 15 hours/semester). Prove you can excel with this minimal course load.

C. This is only “Part I” of your education. “Part II” begins only if you have strategically positioned yourself for success: acceptance into vet school, med school, or graduate school.
SO YOU WANT TO BE A DOCTOR

Medical, Dental and Optometry School:

• Intense competition (in 2002, 33,625 applicants for approximately 16,200 seats) for medical school.

• The average GPA for accepted medical students in 2002 was 3.59.

• MCAT scores must be in the double digits (scoring range 1-15).

• Show strong evidence of knowledge of the field including recent problems with HMOs, politics, medicare, investment in educational and start-up costs, etc.

• Show you have volunteered or worked in a medical setting; show that you understand the human condition

• Get to know some faculty members who will write letters of recommendation for you; consider doing campus or off-campus research to gain extra experiences

• Join the Premed/Predent Club to learn much more. Seek office in various extracurricular activities to show leadership potential

• Consider taking more courses that will improve your reading, writing and critical-thinking skills. These are usually courses in philosophy, logic, advanced writing, and MDS courses such as biomedical ethics
If you are considering a career in veterinary medicine, you must first choose a departmental curriculum from the list below. For example, if you wish to focus your studies on Animal Science then recognize that “SAS” which is the curriculum code for “Animal Science” will be the program in which you will receive your degree. Thus, SAS will become your major and Preveterinary Medicine (SPV designation) will become a non-degree option that alerts your adviser of your goal.

You should strive for a 3.5 GPA at the time of application to a veterinary school. Competition for admission to veterinary schools is keen. Typically, science options listed below for each department are suitable as majors for students interested in meeting minimal requirements for most veterinary and human health professional schools. Students should be aware that individual professional schools might require coursework beyond minimum requirements. It is recommended that students, early in their academic careers, determine the exact admissions requirements for the schools to which they expect to apply. Much information is available in the library, on the World Wide Web and from your departmental undergraduate coordinator. Prerequisites and required courses may be found for the NC State College of Veterinary Medicine at the following Web site: http://www.cvm.ncsu.edu/studentservices/admissions.html

**College of Agriculture and Life Sciences (Non-Degree Tracks)**

- **A** Agriculture, Undeclared
- **BL** Life Sciences, Undeclared
- **AL** Unclassified in Agriculture and Life Sciences
  
  (For students who have a previous degree and only need to complete required coursework for entrance into veterinary and human health professional schools.)

**Department of Agricultural Extension Education**

- **AEC** Extension Education - Communications Concentration
- **AED** Agricultural Education – Teacher Certification Option
- **AEE** Extension Education
- **AEX** Extension Education - Agricultural Extension Concentration
  
  Careers: secondary agriculture teaching, county and area extension agents, community college agriculture instructors, public relations in agriculture positions, agricultural government agencies, commodity groups, technical writing

**Department of Agricultural and Resource Economics**

- **ABM** Agricultural Business Management
- **BBM** Agricultural Business Management - Biological Sciences Concentration
  
  Careers: agribusiness management, sales, marketing, finance, brokerage and merchandising; farm management, farming, research, biotechnology, pharmaceutical and health care sales and marketing
- **ESE** Environmental Sciences - Economic Policy Concentration
  
  Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law
- **NRM** Natural Resources - Economics and Management Concentration
  
  Careers: resource policy analyst, resource management or education

**Department of Animal Science**

- **SAS** Animal Science (Science Option)
- **IAS** Animal Science (Industry Option)
Careers: animal industry production, research and development, animal feeds/foods/drugs marketing and sales, livestock management, basic or applied research, consulting services

**Department of Molecular and Structural Biochemistry**

**BCH** Biochemistry
Careers: research or production with government agencies, drug companies, food industries agribusiness companies and biotechnology firms, education, administration, technical sales

**Department of Biological and Agricultural Engineering**

**AET** Agricultural and Environmental Technology

**BE** Biological Engineering
Careers: biomedical and biological engineering, design and development, facilities engineering, waste management consulting, environmental engineering, food processing engineering, agricultural machinery sales and service, irrigation engineering, agribusiness management/sales

*Please note: Students interested in the Biological Engineering (BE) program, which has concentrations in Agricultural Engineering (BEA), Bioprocessing Engineering (BEP), and Environmental Engineering (BEE), must be admitted into the College of Engineering Biological Engineering Undeclared (BEU) program before matriculating to the BE program. For more information on admissions eligibility criteria, contact the College of Engineering’s Academic Affairs Office (919-515-3693, 120 Page Hall) or the Undergraduate Coordinator of Biological and Agricultural Engineering (919-515-6716, 108 D.S. Weaver Labs).*

**Biological Sciences Program**

**BLS** Biological Sciences

**BSN** Biological Sciences - Nutrition Concentration
Careers: teaching, lab technicians, technical writers, drug and technical sales, conservationists, biological researchers in numerous areas, biotechnologists

**Department of Botany**

**SBO** Science - Botany
Careers: basic and applied research, education, administration, sales, service, management, consultation, conservation, inspection, resource management

**Department of Crop Science/Soil Science**

**TAA** Technology - Agronomy, Basic Sciences Concentration

**TAB** Technology - Agronomy, Agronomic Business Concentration

**TAC** Technology - Agronomy, Crop Production Concentration

**TAT** Technology - Agronomy, Turfgrass Management Concentration

**TSS** Technology - Agronomy, Soil Science Concentration
Careers: consultants, extension agents, golf course superintendents, lawn care specialists, soil conservationists, technical sales representatives, agronomists, plant and soil scientists, waste and water quality management, weed specialists

**Department of Food Science**

**SFS** Science - Food Science

**TFS** Technology - Food Science
Careers: quality assurance, production management, new product/process development, regulation of standards/food laws and safety, technical sales, packaging, market research, water supplies, waste management
Department of Horticultural Science
SH Science - Horticultural Science, General Concentration
THG Technology - General Horticulture Concentration
THL Technology - Horticultural Science, Landscape Horticulture Concentration
Careers: landscape design and contracting, garden center management, greenhouse production, fruit/vegetable production, nursery production, pest management, sales representative/technician, research and service with government and industry

Department of Microbiology
SMB Science - Microbiology
Careers: medical and basic research, immunology, quality assurance and sales in pharmaceutical or food companies

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SPS Science - Poultry Science
TPS Technology - Poultry Science
Careers: positions with national and multinational corporations in the management, marketing, production, basic and applied research and processing of poultry-based food products

Department of Sociology and Anthropology
ASA Science - Applied Sociology
ACR Science - Criminology
Careers: social services, personnel relations, law, business management, government, survey research

Department of Soil Science
NRS Natural Resources - Soil Resources
NRW Natural Resources - Soil and Water Systems
Careers: resource policy analyst, resource management or education, soil scientist/conservationist, land use management, water quality or waste management, environmental technicians
ESS Environmental Sciences - Soil Science Concentration
Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law

Department of Zoology
SZO Science - Zoology
Careers: basic and applied research with government and industry, education, technical sales; ecologists, conservationists, zoo technicians and keepers, resource management
ESC Environmental Sciences - Ecology Concentration
Careers: environmental impact assessment and economic policy, soil and land use consultancy, water quality/waste management, ecological research, environmental health specialists, environmental law
Pre-Veterinary Medicine (SPV)

http://www.cvm.ncsu.edu/studentservices/admissions.html#prereq

Eligibility (Requirements for the 2004 Admissions cycle)

Candidates will be considered academically qualified for admission if they meet the minimum academic standards, which are:

<table>
<thead>
<tr>
<th></th>
<th>N.C. Residents</th>
<th>Non-Residents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative GPA</td>
<td>3.0</td>
<td>3.4</td>
</tr>
<tr>
<td>Required Course GPA</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Last 45 Credit Hours GPA</td>
<td>3.3</td>
<td>3.4</td>
</tr>
<tr>
<td>Graduate Record Exam</td>
<td>General Test</td>
<td>General Test</td>
</tr>
</tbody>
</table>

The cumulative GPA includes all college courses. The GPA for the last 45 credit hours goes back a semester at a time. If a student completed 44 credit hours in his/her final three semesters, the College of Veterinary Medicine would go back 4 semesters to calculate the last 45 credit hours, meaning it may actually be for 56 hours or more. Repeated courses are averaged.

Alternative eligibility

It is recognized that some qualified applicants may fail to meet the minimum academic standards. In certain cases, applicants that do not meet minimum academic standards may be considered for admission based on alternative evidence of academic qualification as determined by the admissions committee.

Please contact the Student Services Office if you have a question concerning alternative eligibility.
# NC State Veterinary Medicine

## Required Courses

*Prerequisite or Required Courses for the 2004 Admissions Cycle*

For the equivalent course at another college or university, check the NC State University web site at: [http://www.fis.ncsu.edu/uga/course.htm](http://www.fis.ncsu.edu/uga/course.htm) or ask the advisor at your college. Use the course descriptions listed here to guide you on your assessment if a course taken at your home institution meets our prerequisites.

<table>
<thead>
<tr>
<th>Required Course*</th>
<th>Semester Hours Required</th>
<th>NC State Equivalent Course</th>
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</thead>
<tbody>
<tr>
<td>Composition &amp; Writing, Public Speaking, Communications</td>
<td>6/7</td>
<td>ENG 101 Academic Writing and Research (4) and one of the following: COM 110 Public Speaking (3) or COM 146 Business and Professional Communications (3) or COM 211 Argumentation and Advocacy (3)</td>
</tr>
<tr>
<td>Calculus or Logic</td>
<td>3</td>
<td>MA 121 Elements of Calculus (3) or MA 131 Calculus for Life and Management Sciences (3) or MA 141 Calculus I (4) or LOG 201 Logic (3)</td>
</tr>
<tr>
<td>Statistics</td>
<td>3</td>
<td>ST 311 or ST(BUS) 350 Intro to Statistics (3)</td>
</tr>
<tr>
<td>Physics with labs (must be at least a two-course series)</td>
<td>8</td>
<td>PHY 211 College Physics I (4) and PHY 212 College Physics II (4) or PY 205 Physics for Engineers and Scientists I (4) and 208 Physics for Engineers and Scientists II (4)</td>
</tr>
<tr>
<td>General Chemistry with labs</td>
<td>8</td>
<td>CH 101 Chemistry - A Molecular Science (3) with lab CH 102 (1) and CH 201 Chemistry - A Quantitative Science (3) with lab CH 202 (1)</td>
</tr>
<tr>
<td>Organic Chemistry with labs</td>
<td>8</td>
<td>CH 221 Organic Chemistry I/lab included (4) and CH 222 Organic Chemistry II/lab included (4)</td>
</tr>
<tr>
<td>Biology with lab</td>
<td>4</td>
<td>BIO 125 General Biology (4) or BIO 183 Introductory Biology II (4) or ZOO 160 Intro to Cellular and Developmental Zoology (4)</td>
</tr>
<tr>
<td>Genetics</td>
<td>4</td>
<td>GN 411 Principles of Genetics (4)</td>
</tr>
<tr>
<td>Microbiology with lab</td>
<td>4</td>
<td>MB 351 General Microbiology (3) and MB 352 General Microbiology Lab (1) or MB 411 Medical Microbiology (3) and MB 412 Medical Microbiology Lab (1)</td>
</tr>
<tr>
<td>Biochemistry</td>
<td>3</td>
<td>BCH 451 Principles of Biochemistry (4)</td>
</tr>
<tr>
<td>Humanities/Social</td>
<td>6</td>
<td>Humanities courses include history, foreign language, arts,</td>
</tr>
</tbody>
</table>
**Sciences**

music, language. Social Science courses include psychology, sociology, anthropology.

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**Business/Finance**

Any business, finance, accounting, economics, or agricultural economics course including:

- BUS 201 Introduction to Business Processes (3)
- BUS 225 Personal Finance (3)
- BUS 320 Financial Management (3) *Or*
- ARE courses *Or*

CREAM (Cooperative for Real Education in Agricultural Management)

Business Law

Personnel/Human Resource Management

*But* excluding courses that satisfy our writing or statistics requirements or courses that have a technological focus (i.e. microcomputer application courses)

*Required courses must be completed with a grade of "C" or higher.

*All but two of the required courses must be completed by the end of the fall semester during which the student applies. The remaining courses must be completed in the following spring semester.

*Requirements are not waived in lieu of work experience.*

*Applicants offered admission must submit transcripts by July 1 showing conferral of degree, completion of required courses, or both (if applicable).*

*Quarter hours can be converted to semester hours by dividing the number of quarter hours by 1.5.*

A course in animal nutrition is strongly recommended, but not required. If you attend a college that does not offer an animal science course, you may want to consider taking one via distance learning, such as an internet course or correspondence course offered by an accredited college or university.

For example, Oklahoma State University offers two animal science courses that satisfy the requirement. See their web site at [http://www.okstate.edu/outreach/ics/](http://www.okstate.edu/outreach/ics/) or call 405-744-6390. The two courses are ANSI 2123, Livestock Feeding and ANSI 3543, Principles of Animal Nutrition.

Four community colleges in North Carolina offer animal science programs: **Wayne Community College** in Goldsboro, NC; **James Sprunt Community College** in Kenansville, NC; **Surry Community College** in Dobson, NC; and **Sampson Community College** in Clinton, NC.