Professional Guidelines and Expectations for School of Forest Resources Students

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We as a faculty in the School of Forest Resources are committed to helping you develop the professional skills necessary for you to succeed in your studies and in your future careers.

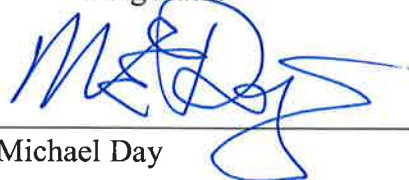|	
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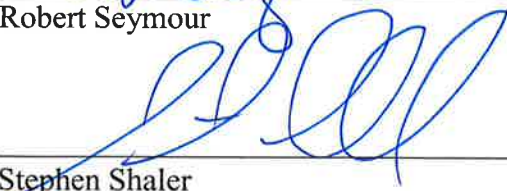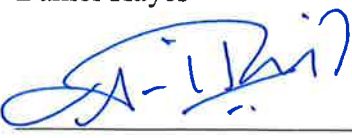
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Introduction

As a faculty, our job is to prepare you for professional careers in the broad field of forest resources. A degree from one of our programs is not just a piece of paper to hang on your wall – it is much more than that! On one hand, the coursework you complete in our programs represents a set of technical skills, but more importantly it demonstrates that you have an ability to learn new concepts. Further, all of our programs have been designed to provide you with the professional skills needed to be successful – both at the University of Maine and in the workforce. These professional skills will carry you further in your career than anything else, so we commit to providing you with every opportunity to develop and refine those skills during your time with us.

As you will see in the next sections, *professionalism* is a vital component of the School of Forest Resources' vision, mission and core values. Several topics in the next sections, such as cheating, plagiarism and diversity in the workplace, are also addressed in more detail in the University of Maine's Student Code of Conduct (www.maine.edu/pdf/conductcode.pdf). Professional skills relate to your ability to communicate with others in a variety of ways, your commitment to lifelong learning, your ability to effectively use computers and technology, and your ability to foster a safe work environment. It is our hope that you will develop and take ownership of these skills in your studies and SFR related activities.

SFR Vision, Mission, and Core Values

Vision

We aspire to be the global leader in educating forest resource professionals.

Mission

Our mission is to educate the next generation of forest resource professionals with the scientific, technical, field, management, and communication skills needed to be leaders and ethical stewards of the world's forest resources for the 21st century.

Core values

Core values are essential to achieving the above vision and mission. The undergraduate program of the SFR is committed to and will emphasize the following values in educating our students:

- Commitment to the highest level of *professionalism, stewardship,* and *ethics*

- *Sustaining forests* and the functions, products, services, and values they provide for current and future generations

- *Service* to the people of Maine, the nation, and the world

- *Leadership, innovation, critical thinking,* and *excellence* in all endeavors

- *Lifelong learning* to maintain the highest scientific, technical, management, field, and communication skills

Professional Expectations

Lifelong Learning

As noted above, successfully completing one of our programs demonstrates first and foremost that you have an ability to learn new concepts. This is important because your education does not end on graduation day. Professional societies and organizations require continuing education. As the forest industry and society's needs from our forests change over time, you will need to learn new skills and concepts. This is a process of continual improvement and it is our hope that you will build upon the knowledge and skills that we provide in our programs to succeed in your careers.

The Classroom

We commit to providing you with high quality learning opportunities and it is our desire for you to receive the full value of our scheduled times together. This is especially true for lectures and laboratory experiences, but it also extends to field trips and other SFR related events. To be effective, you need to take responsibility for your part in the learning process. We expect you to approach your studies the same way you would a full-time career position – *professionally*.

Successful consulting foresters, for example, are on time for meetings with clients and they ensure harvest plans and silviculture prescriptions are thorough, well written, within budget, and adhere to landowner objectives. They arrive for field work with all of the necessary equipment and they likely have backup plans in place as needed. Consulting foresters combine prior knowledge with new skills to solve complex problems. They are conscientious about their work and they understand that they need to protect their professional reputation.

We expect you to approach your studies and course work in a professional manner. This means regular attendance in lectures and laboratories, active participation in group discussions, and adequate preparation for all learning activities. Course readings, for example, are designed to supplement lecture material so we expect that you will keep on schedule with those readings as appropriate. If you are going to be late for class or if you have to miss a class entirely, show us professional courtesy by contacting us in advance. (This does not mean your absence will automatically be excused, but it is a more professional way to handle the situation.) We expect that you will apply knowledge and skills from other courses to problems in new courses. The way you perform – academically and professionally – during our scheduled time together should be considered as practice for the real world!

Diversity in the Workplace

The field of Forest Resources is becoming increasingly diverse over time. We now have, and strive for, greater inclusion of traditionally under-represented ethnic and demographic groups in our academic program and profession. In addition, Forest Resources includes a range of specializations,

such as forest management, recreation and tourism, conservation, forest operations, and bioproducts and bioenergy. These fields of study span a range of approaches from quantitative to qualitative and include utilization and preservation objectives. Rather than strive for a single perspective, we value the diversity of experiences and opinions that our students, faculty, staff and partners bring to our program.

An important part of working professionally in this environment is respecting the viewpoints of others, and interacting in a non-confrontational and non-discriminatory manner. Inflammatory language, name-calling, and comments about an individual's race, ethnicity, gender, or sexual orientation will not be tolerated as outlined in the University of Maine's Student Code of Conduct (www.maine.edu/pdf/conductcode.pdf). It is our expectation that you will be respectful and unbiased in all your communications and actions. Should you have any questions or concerns related to these issues, please contact the School Director (Dr. Stephen Shaler) or Associate Director (Dr. William Livingston).

Cheating and Plagiarism

Cheating is willingly or knowingly breaking the rules. In an academic setting, this includes referring to your textbook during a closed book exam, copying a friend's answers to question 10 from the algebra assignment, and writing the definition and formula for basal area on your hand for the upcoming quiz. Simply stated, cheating is unprofessional behavior and we expect you to rise above any temptation to cheat during your time in our programs and during your professional career.

The concept of plagiarism has been made particularly relevant by the ease of copying material or parts of material electronically due to a wide assortment of information available on the internet. Plagiarism can be defined as use of material created by someone else without appropriately attributing authorship. 'Material' here is broadly defined as any published or unpublished work including, but not limited to, written comments or interpretations, graphics, and photographs. In the world of technical and scientific writing, plagiarism does not have to be a word-for-word or exact graphic representation of another's concepts, data or findings, but can be a paraphrase that deliberately expresses the intellectual property of another without proper attribution. Unless exact or near exact wording or imagery is copied, material that is general knowledge can usually be used without attribution. For example, the statement "Good forest road and skid trail design prevents silting in streams" would not require a citation in use. There are cases in which the line between general knowledge and plagiarism is not clear. The rule in such cases is: if in doubt, properly attribute to the author or source. We will provide you with our expectations and citation formats for reports in specific courses.

Given the above, any form of misrepresentation of your work, including cheating and plagiarism, are unacceptable at the School of Forest Resources, the University of Maine, or during your career as a professional forester. Cheating and plagiarism are violations of both SFR policy and UMaine's Student Conduct Code and may result in severe penalties, including expulsion from your academic program and the University. An instructor who has probable cause or reason to believe a student has cheated may act upon such evidence by reporting the case to the Associate Director for Undergraduate Studies for further action. If a student is determined to have cheated or plagiarized another's work, a description of the incident may be included in that student's permanent record at the SFR.

Group Work

A successful career in forestry requires that you be able to work in a team or group environment. As such, you will be given numerous opportunities to work in groups as part of your course work. We recognize that group work can be frustrating at times depending on the personalities involved. Our hope is that you will be able to rise above those challenges and keep focused on the task at hand. In addition to practice, here are a few things to keep in mind as you work closely with others in a group environment:

- The more you put in, the more you will get out. At times you may feel you are doing much more work than others in your group. Although that may not be *fair* from a grading perspective, those that do more will learn more.
- The less you put in, the less you will get out. If you are the type of person who would rather sit back and let others do the work, you must understand that ultimately you are the one missing out. We provide opportunities in our programs for you to learn numerous skills and to apply new concepts that we feel are necessary in your future careers. It is highly likely that some of those missed opportunities on your part will negatively impact your career in the future.
- Set clear expectations for each group member from the outset. Once you have broken the problem down into individual tasks, make sure everyone in the group knows who is responsible for which part and when the task must be completed. It is also advisable to decide as a group on the consequences for individuals missing deadlines.
- Communicate with your professor, instructor, or teaching assistant in regards to group dynamics. If things are not going well, let us know. We may be able to give you advice on motivating your group or on working around a particular problem. In extreme cases we can reassign students to other groups.

Resume and Work Experience

In many respects, you can think of your time in our programs as an in-depth job interview and training session. As soon as possible, create a resume template so you can add to it over time. You will need one to apply for most jobs – from part-time summer employment to full-time permanent position after graduation. There are many resources available to help you with this, but the key is keeping it current. At the end of each semester, take some time to revise your resume by updating appropriate sections. Ask one of us to review it for you and to provide some constructive comments for improvement.

It is also a good idea to gain practical work experience that will further your career in the future. Make the most of your summer work experiences by asking about the broader implications of the work you are doing. Ask your supervisors to explain the "bigger picture" for your work, and then set about completing your specific tasks to the best of your ability. You might also want to ask your employer at the end of the summer to provide a general letter of recommendation. Take advantage of opportunities during the semester to network with others in your field by attending workshops and conferences. Consider joining one of the professional societies such as the student chapter of the Society of American Foresters. The contacts you make during your time in our program can give you more opportunities for employment upon graduation.

Professional Societies and Codes of Ethics

SFR curricula are accredited by the Society of American Foresters (www.safnet.org), the primary professional organization of foresters since its founding by Gifford Pinchot in 1900. The FBB program is also accredited by the Society of Wood Science and Technology (www.swst.org). All professional societies have well established Codes of Ethics that their members are expected to embrace. Knowledge of ethics is a General Education requirement at the University of Maine, and we cover this topic in various ways in many of our courses. Professional ethics are meant to guide your behavior and conduct in situations where black-letter laws or simple rules do not exist or do not suffice. In plain English, ethics help you "do the right thing" in difficult circumstances where there may be conflicting or competing interests pulling you in different directions. It's what you should do when nobody is looking.

Current codes of ethics for professional societies important to our programs can be accessed from the following websites:
- Society of American Foresters   www.safnet.org/join/card.pdf
- Society of Wood Science and Technology www.swst.org/about/code_ethics.html
- American Anthropological Association   www.aaanet.org/committees/ethics/ethicscode.pdf
- American Sociological Association   www2.asanet.org/members/coe.pdf

The best way to get the most out of your educational experience and professional career is to become an active member of your professional society, beginning with its Student Chapter and continuing throughout your career. The Maine Society of American Foresters, our local chapter, will pay your first year of dues as a student, and expects you to continue as an active member by attending annual meetings, field trips, and other professional functions. The Forest Products Society also encourages and supports students through its own student chapter: (www.forestprod.org/join_the_community/student_chapter_guidelines.php).

Communication

Technical Reports

You are expected to be proficient at technical writing by the time you graduate from one of our programs. The ability to concisely convey technical information to your clients, supervisors, colleagues, and the public is a critical skill in the professional world. You may have to write final project reports, proposals for future work, budget justifications, or project status summaries. We will provide a variety of opportunities for you to develop and refine those skills, but it is important for you to realize that it is your responsibility to use our constructive comments to continually improve your writing.

In addition to using appropriate paragraph structure, complete sentences, and proper spelling and grammar, here are a few generic items to get you started:

- Know your intended audience. This will help you determine the level of jargon you are allowed to use. You can still write a technical report for the general public, but you may need to define more forestry terms than if the report is intended for your supervisor. Along those same lines, ask your instructor what level of jargon is acceptable. Part of the assignment may in fact be to determine if you know what the terms mean! Some of us may ask you to prepare reports from the perspective of a consulting forester writing to a client. These exercises are intended to prepare you for the real world.
- Make use of auto format features in whichever word processing program you use. The more you practice with these programs, the more efficient you will become at using them and the more professional your reports will look. (See Computer Technology – Word Processing below for more details.)
- Finally, remember that technical writing is not the same as English essays and short stories from high school. You do not get extra points for long, drawn out sentences, excessive "wordiness", and dramatic language. Rather, get to the point quickly and write in a concise manner.

Email Correspondence

E-mails are an effective method of communication with course related questions; however, there are certain rules of etiquette that should be followed. Emails should be composed professionally with complete sentences that are grammatically correct, no spelling errors, nor cryptic abbreviations. You should include a clear subject line along with a clear and concise question. Think about what you are asking before you submit the email.

Do not expect an immediate response to your email. Should you submit your email late at night do not expect a response first thing in the morning. Each professor has a different work schedule, and probably has a personal life as well. During the business week, 24 hours is a standard window for an email response.

Finally, you are what you email. Your emails to your professor help shape his/her professional opinion about you. In some settings, email is the dominant opportunity for the professor to form an opinion about you. Every email adds to the professor's profile of you, so read each email twice prior to sending.

Cover Letters and Memos

There is a skill to crafting an effective letter and you will be given opportunities in your program and coursework to develop and refine this skill. Please take these opportunities seriously because as a professional you will be required to write cover letters to accompany technical reports and resumes or job applications. You may be asked to write inter-office memo to provide an update on the status of a project or a report. You may also be asked to write a reference letter for an employee or a memo updating a particular company policy.

There are many resources available to help you write cover letters and memos, but it all begins with proper formatting. For letters, make sure to include at a minimum the recipient's name and address, the date, and your signature. For memos it is important to identify the recipients, the sender, and

the purpose. Most word processing programs provide several templates and styles for letters and memos.

Communication Devices

We all recognize the value and convenience of current communication technology such as cell phones and smart phones. Although these tools allow us to efficiently communicate with friends and colleagues by phone, voicemail, text messages, and email, it is not always appropriate to do so. Use of such devices during lectures, labs, or on field trips can be distracting to your professors, fellow students and guest speakers. To extend professional courtesy to those around you, it is expected that you turn all cell phones and related electronic devices off while you are engaged in class-related activities.

Computer Technology

Computers are an essential part of forestry and they have a wide range of uses in forest resource professions including preparing reports, analyzing data, and projecting future stand conditions. Consequently, you are expected to be competent in using a variety of software programs. This will include software that is both specific to your profession and of general use. The minimum competencies for general software that is widely used both inside and outside of forest resource professions are given below.

Word Processing

All professional documents are prepared using a word processing program. The software available today (e.g., Microsoft Word) make it very easy to prepare professional looking reports, proposals, and letters, in addition to correcting the mechanics of writing (e.g., grammar, spelling, sentence structure). Some of the features of word processing programs you are expected to learn how to use include:

- Auto generation of a table of contents, list of figures, and list of tables
- Formatted headers and footers complete with page numbers
- Section breaks as appropriate to ensure page numbers are accurate
- Heading and sub-heading styles
- Embedded pictures and figures as appropriate with captions
- Insertion of captions for tables and figures for cross referencing
- Mathematical equation editor for formulae and functions
- Addition of borders to tables and figures as appropriate

Spreadsheets

Most projects you work on in your professional career will require organization and analysis of data. It is essential that you become proficient with spreadsheet programs (e.g., Microsoft Excel) to help you efficiently manage your projects. Some of the features of data analysis programs you are expected to learn how to use include:

- Enter and manipulate data
- Enter a formula for summary and analysis
- Use pivot tables to efficiently generate summaries of complex data
- Plot an equation over a specified variable range
- Compare variables and present information in an appropriate graphical format such as x-y plots, bar graphs, and pie charts
- Ability to solve for root of an equation
- Write custom functions and macros for unique situations

Presentation Software

During your professional career you will be required to deliver presentations to diverse audiences. You will have many opportunities to develop and practice your presentation skills through your coursework, but it is essential that you become proficient with some of the presentation software available today (e.g., Microsoft PowerPoint and Apple Keynote).

Forest Resource Specific Applications

Technology is constantly changing, particularly software. Forest resource professionals are often required to use specific software. This means that during your studies here, you will be required to learn a variety of software programs beyond just the minimum competencies listed above. Even after you graduate from our programs, learning new software will not stop as each organization often has its own preferred software. All software differs in design, intended use, and degree of user-friendless. However, it is imperative that you become comfortable with learning new software, understand how to orient yourself to the features of the software, and be able to troubleshoot problems when it is not performing to expectations. Some of key programs you will be exposed to and use during your studies include (but are not limited to):

- Geographic Information Systems (GIS) like MapInfo and ArcMap for displaying and analyzing spatial data
- Forest Inventory and Growth Projection Systems like FlexFiber, the Forest Vegetation Simulator (FVS), and the Stand Visualization System (SVS), which are used to visualize and analyze current forest conditions as well as to forecast expected changes
- Forest Planning software like Landscape Management System (LMS) and Remsoft Spatial Planning System, which are used to assess landscape plans for varying management objectives like wildlife habitat and develop harvest schedules
- Forest Harvesting and Road Analysis programs like Road Eng for assessing the suitability of different harvesting equipment and proposed road layouts
- Statistical Packages like R and SPSS, which are used to display data, do formal statistical analyses, and conduct simulation studies

Field Skills

Safety

It is our desire that you develop safe working practices during your time with us and that it continues throughout your working career. Most employers have safety training programs and over time you will have many opportunities to receive formal training in this regard. The purpose of this section is not to replace such training initiatives, but to give you some general principles that will help keep you safe during course and lab activities in the field or in wood processing facilities. The following are a few items to keep in mind as you leave for outdoor classes, labs, and field trips:

- Make sure to bring your own personal protective equipment. This includes but is not limited to sturdy footwear (work boots or hiking boots), safety glasses, and hard hats. Hi-vis vests are also required when you are working around heavy equipment.
- At least one member of your group should be trained in first aid and you should have at least a basic first aid kit on hand.
- When working alone or in small groups, you should designate someone as a check-in contact. Make sure they know where you are going and when you plan on returning. If they do not hear from you by a pre-determined time, they should be able to begin a search for you and your group.
- When you are visiting an active logging operation remember that you are entering the logging contractor's place of work. Think of the harvest site as the office building and the machine cab as the operator's office. You would not barge into your supervisor's office unannounced, so you should not barge into the logger's workspace either. Make eye contact with the operator first and wait until the machine has shut down before approaching. These machines have limited fields of view to the sides and back. Assume the operator does not know you are there and take the necessary precautions to ensure your safety.

Equipment Requirements

During your studies in our programs, and depending on your professional career path, you will need to be proficient at using many pieces of forestry specific equipment. These include, but are not limited to: diameter tape, calipers, compass, prism, clinometer, and a gps unit. Although SFR maintains an equipment room for you to sign out equipment as needed, we suggest that you consider buying your own equipment. You will then have more control over their use and we feel this is a wise investment on your part.

Maps

Frequently you will be required to prepare maps for your class work or specific projects. This skill will be important in your professional career as well. You should strive to always prepare complete maps that include at least the following items:
- A complete and descriptive title
- A method of orientating the map (e.g., North arrow)
- A Bar Scale and never the following 1inch = XX Feet. Since we live in an electronic age maps are often reproduced at a larger or smaller scale and this becomes inaccurate. However, a Bar Scale will remain proportionately correct.

- A table describing the symbols used on the Map (e.g., Legend or Key)
- A location diagram
- Additional information that would help the reader including: author, date of preparation, source of data, projection and datum.
- A disclaimer defining the limitations of the map. (e.g. This map was not prepared by a register land surveyor, therefore it may not be used in the legal transfer of title.)

Field Notes

Most field work performed by professionals requires some form of record keeping. One of the most common methods is to record data directly into a field notebook. These records contain valuable information about the work conducted in the field and therefore are often considered to be legal records. In those cases where electronic recording devices are employed you should always include a hand written log in your field notebook to record the activity.

There are numerous methods and formats for recording field notes; however, there is a skill and art to keeping neat, accurate, and complete notes. The objective is to prepare the cleanest notes possible with the least expenditure of time and effort. In general, there are certain principles that apply to all forms of record keeping. The following items should be included records for all field projects:

- Maintain a Table of Contents.
- Number pages.
- Include a project name or number, as well as date and location of work, weather conditions, and the purpose of the activity or project.
- Record all original data into the field notebook while in the field and at the job site. This includes sketches. Avoid recording notes on miscellaneous pieces of paper as they often become lost and it is unprofessional.
- The note recorder should sign each page of original notes.
- Lettering should be done with simple upper case letters.
- Straight lines should be drawn using a straightedge (e.g., small ruler or credit card).
- Instruments used and identifying numbers of the instrument should be listed.
- Notes should be recorded using a sharp pencil that is of sufficient hardness not to smudge, ink pens and felt tip markers often bleed on the paper.
- Sketches need not be to scale but they should provide adequate detail and contain a north arrow.
- In those cases where electronic recording devices are used, the file name(s) should be recorded for future reference.
- In those cases when recording a value less than one, a zero should be placed before the decimal point.
- Record all measurements with the same precision in any given project.
- All angular measurements should be record to two places (e.g., 05° not 5°).
- Under no circumstances should you erase or write over a record in the field notes. Draw one line through the incorrect entry and insert the proper record directly above.
- Incorrect notes should be marked "**VOID**" and recorded as such in the table of contents.

Note taking is of critical importance for the social sciences as well so be sure to use "jottings" (i.e., quick notes to help you recall what you learned throughout the day) and then at the end of the day, record notes in a field journal to describe methodological, descriptive and analytical notes of observations, interviews, meetings, and participatory activities. **Further, identifiable information of participants should be kept in a separate notebook to respect confidentiality of sources.**