# HOGAN FOREST DYNAMICS LAB MANUAL[i]

Lab website: http://www.tamuforestry.org

## 1. Welcome to the Lab

Welcome to Dr. Aaron Hogan's Forest Dynamics Lab (FDL) at the Department of Ecology and Conservation Biology (ECCB) at Texas A&M! I'm thrilled that you have decided to join the group! We are a group deeply interested in the scientific study of the dynamic functioning of forest ecosystems and the physiology of individual trees. We have a passion for natural ecosystems and are curious, skilled, and rigorous in our approach to science. You have great potential, and we look forward to growing alongside you as your research develops. We collectively solve problems by gleaning scientific insight into the functioning of forest ecosystems.

The FDL nurtures a collaborative academic environment that values scientific rigor, reproducibility, and transparency, leading to discovery and impact for forest land managers and the public (*i.e.*, users of forestlands and their ecosystem services). The FDL upholds a culture of academic freedom of thought while fostering mutual respect and collaboration among members. The lab is committed to upholding high standards of research conduct in the field and in the laboratory, including adherence to all policies and procedures of Texas A&M University and the field site locations (e.g., Cooks Branch, Luquillo). The lab, including senior personnel and Dr. Hogan, will strive to educate, advise, support, and guide in achieving career success by fostering strong mentor-mentee relationships that promote growth and mutual benefit.

## 2. What Our Lab is About

The FDL strives for scientific excellence in studying natural and managed forests while maintaining a professional and supportive research environment that fosters the development of lab members.

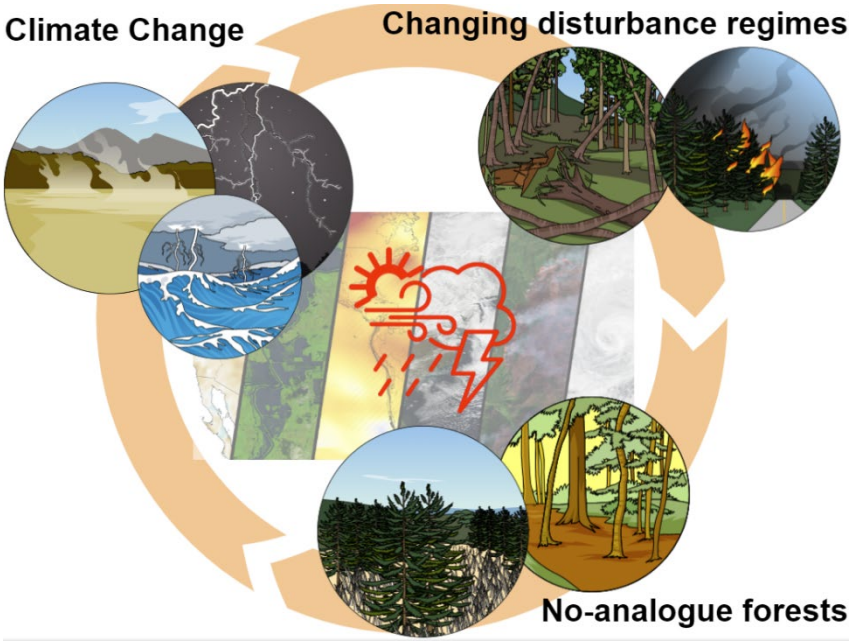
Scientific excellence means that the lab values 1) rigor, reproducibility, and transparency, 2) discovery and impact, 3) engagement and respect, 4) responsible conduct of research, and 5) strong mentor-mentee relationships throughout the scientific work process. We strive for attention to detail, robust data collection and analysis methods, reproducibility, open science, and transparent, collaborative data management standards.

Maintaining a professional and supportive research environment means that all lab members will seek to build trust over time by taking actions that benefit the goals of the FDL and one another. The FDL seeks to maintain an environment where individuals feel comfortable and confident expressing their thoughts, perspectives, and concerns, regardless of their personal characteristics or status within the lab. Mutual respect is a paramount lab value, and all members are expected to treat one another with kindness and professionalism. Feedback among lab members and Dr. Hogan will address successes and failures. Successes will be mutually celebrated, and failures will be treated as learning opportunities to help individuals and the lab grow in understanding and effectiveness.

Lastly, a key purpose of this lab manual is to convey the shared expectations for the FDL. All members of the lab, including the PI, post-docs, graduate and undergraduate students, and interns share responsibility for establishing supportive mentor–mentee relationships and co-collaborative development of each other. We commit to open, honest, and respectful communication, maintaining a professional and respectful work environment, and holding regular one-on-one and lab meetings. We commit to set clear, shared expectations early and revisit them over time. Students agree to ask questions, seek feedback, and share progress; the PI agrees to provide timely guidance, training, and fair credit. Together we co-create goals (e.g., individual development plans), align roles and resources, learn from mistakes, and use structured approaches to problem solving so everyone grows in skill, confidence, and independence while producing rigorous, reproducible science

*2.1 Our Scientific Mission and Vision*

The **mission** of the FDL is to engage in rigorous scientific inquiry into forest ecosystems. The lab endeavors to advance fundamental and applied understanding of forest dynamics—from individual trees to landscapes—by quantifying how climate, disturbance, and management shape forest structure, function, and resilience. The lab strives to produce reproducible, transparent science and open data/tools that inform land conservation/restoration goals and sustainable land stewardship.




The lab trains and empowers a diverse next generation of scientists in field ecology, quantitative modeling, and collaborative research within a psychologically safe, trust-based lab culture. The FDL strives to be recognized for unique and impactful

integrative, multi-scale forest dynamics research that combines long-term field observation, remote sensing, and process-based modeling to generate actionable insights for agencies, landowners, and communities.

*The **purpose** of the FDL is to develop lab members into well-rounded critical thinkers with technical skills that generate trustworthy knowledge of how forests change through time so society can steward ecosystems more effectively by supporting biodiversity conservation, land use goals, and community well-being. The lab is dedicated to preparing lab members to become scientists and practitioners who can lead collaborative, ethical, and reproducible research programs that translate ecology into on-the-ground outcomes*

*2.2 Values*

*The Hogan Lab values the scientific method and seeks to apply our approach to knowledge generation. We value:*

- *a curious mind, meticulous observation,*
- *rigorous background study of scientific literature,*
- *critical thinking and novelty in developing hypotheses,*
- *detailed data collection that leverages the use of technology and methodological advancements,*
- *streamlined approaches to test hypotheses*
- *hard work and persistence.*
- *the art of scientific writing, storytelling, and knowledge dissemination by publishing the best science we can do.*

*Although we value excellence in science, we do not allow it to supersede our key personal values of respect, integrity, honesty, and consideration for others. The Hogan Lab seeks to implement Texas A&M's Aggie Core Values of excellence, integrity, leadership, loyalty, respect, and selfless service. As Aggies, these are integral to how we present ourselves academically and to how we engage in the research process. Here's a brief description of each of the Aggie core values:*

- *Excellence: An unwavering desire and commitment to achieving greatness.*
- *Integrity: Being honest and trustworthy, and holding oneself and others accountable.*
- *Leadership: Setting a positive example for others and embracing change.*
- *Loyalty: Showing trust, respect, and support for others.*

- *Respect: Treating everyone with care, dignity, fairness, and compassion.*
  - *Selfless Service: Working to create a positive impact on others without expectation of personal recognition*

*Additionally, graduate student lab members are expected to adhere to the principles, policies, and procedures outlined in the ECCB Graduate Handbook*

## 3. Communication in the Lab

### *3.1 General Communication Policies*

We prioritize open, honest, and respectful communication. The FDL seeks to implement the following baseline communications policies in all lab interactions: treat people the way you want to be treated; avoid withholding information; listen actively and with curiosity; and assume the good intent of others.

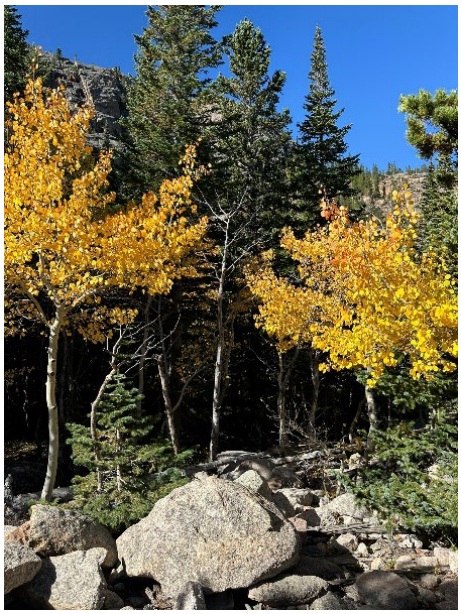
Cultivating a work environment with intellectual freedom and personal expression is a core value: team members must feel comfortable asking questions, voicing differing viewpoints, admitting mistakes, and seeking help without fear of backlash. All lab members are responsible for maintaining such an environment.

Communicate expectations clearly. When in doubt, ask for clarification. When miscommunication occurs, address it promptly and constructively; learn from it to avoid repeat issues. Please practice active listening by being present, listening more than you speak, asking natural follow-up questions, deferring judgment, and restating questions to check understanding—especially during feedback, conflict, or mentoring conversations. All members of the lab should be transparent about decisions and rationales to support perceptions of fairness. Explain “why” when feasible and appropriate.

### *3.2 Communication Tools Used in the Lab*

Please use email as the primary means of information sharing, decisions, documents, and non-urgent questions. Keep subject lines clear, and state needs for action with pertinent deadlines. However, please keep in mind that email is not ideal for emotional topics—please use live conversation or a phone/zoom/teams call for those.

For urgent issues, complex topics, conflict resolution, and brainstorming that would take excessive time via email or chat. A quick call often saves time.



For short updates, check-ins, quick coordination, and time-sensitive clarifications, please use text messages, group chats (e.g., Teams/ GroupMe/ Slack). Please keep channels organized (e.g., #lab-announcements, #project-X, #field-work) and default to public project channels for transparency unless sensitive.

Please use the lab shared drives (Microsoft SharePoint, Dropbox) for datasets, operational procedures, training materials, project pages, calendars, meeting notes, and data management policies. Please edit documents as necessary to keep content current and use version pages when making substantial changes.

### *3.3 Meetings in the Lab*

Meetings in the lab should be intentional and are always designed to have a purpose, agenda, and outcomes.

#### *3.3.1 Lab Meetings*

The purpose of lab meetings is to share data and progress, align priorities, coordinate cross-project tasks, discuss rigor and reproducibility issues, and build team community. Meetings will be intended to solve problems, not simply rehash them. Lab meetings will occur bi-weekly at the regularly scheduled time (typically Friday afternoons, 2-4 PM) in the lab (ECCB room 418). For each lab meeting, an organizer will circulate the agenda in advance, identify roles (facilitator, timekeeper, note-taker), and share any necessary documents. Following the meeting, the decisions and next steps with timelines and owners

#### *3.3.2 One-on-One Individual Meeting*

One-on-one individual meetings with Dr. Hogan will be held weekly at the start of your membership in the lab and will typically last 1 hour (or shorter, but rarely exceed 1 hour). They may decrease in frequency as you get acquainted with the lab and gain momentum with your research. One-on-one meetings are defined for academic advising, research guidance, collective learning, providing feedback, troubleshooting, professional development, realignment of expectations, and prioritization. Additional meetings may be required with others, depending on project needs and career stage.

Please prepare for your one-on-one meeting by writing a brief written agenda or update (progress since the last meeting, barriers to progress, decisions needed, and next steps you propose). This helps refresh context and keeps meetings efficient. The tone of one-on-one meetings is intended to be supportive, transparent, and tailored to the student/post-doc's personal development goals and project progress.

One-on-one meetings will have a clear beginning, middle, and conclusion. Please prepare for your meetings with Dr. Hogan appropriately, including writing down any

discussion questions ahead of time (if applicable), sending documents with adequate time for review before the meeting, and arriving at the meeting ready to engage.

### *3.3.3 Project- or Topic-specific Meetings*

Project- or Topic-specific meetings will be held as needed and will be focused on brainstorming, developing collaborations, engaging with external scientists, and providing project updates (to provide and receive feedback). Attendance at these meetings will be by invitation. Please schedule with collaborators using When2meet or a similar scheduling app, send calendar invites ahead of time with Zoom/Teams links, and clearly outline the agenda/objects.

### *3.3.4 As-Needed Meetings*

Anyone may request an as-needed meeting. If a problem arises, reach out; scheduling a quick live conversation is encouraged to save time and reduce uncertainty

### *3.3.5 Ad hoc Communication*

Dr. Hogan is available for unplanned, impromptu communication, especially in case of an emergency in the field or the laboratory. Dr. Hogan aims to be responsive and available for you. If the office door is open, you are welcome to drop by; otherwise, use Slack/Teams for email for short-notice communication. For emergencies, call.

### *3.4 Booking Shared Meeting Space*

Shared meeting spaces are available through ECCB in the WFES building. Conference rooms (rooms 119, 219, 336, and 348) are available. Teaching/ class rooms (with computers) are also available (rooms 315, 317, 406, 407, 408, 411). To book a shared space, please email Dawn Miles (dawn.miles@ag.tamu.edu) with the start and end dates and times, the expected headcount, any special setup or accessibility needs, and whether the meeting is one-time or recurring. Once she has this information, she will coordinate the room reservation.

## 4. Getting Started in the Lab

Starting in a new environment takes time. Questions are expected and encouraged. Dr. Hogan and others in the lab will do their best to welcome you, make everything explicit, and provide a structured onboarding process to reduce uncertainty and help you acclimate. You are encouraged to shadow existing lab members during your first weeks. You will have an initial welcome meeting with Dr. Hogan to go over this manual and establish rapport, expectations, and initial goals. We will establish a recurring time for your weekly one-on-one meetings, begin developing your IDP, and go over expectations and lab norms.

*4.1 General Guidance for New Lab Members*

If you are a graduate student, please review the ECCB graduate student handbook closely. Please also review and familiarize yourself with the Texas A&M student rules. Please set up your institutional email address promptly and send an initial email to Dr. Hogan and the lab.

For postdocs, please familiarize yourself with the various Texas A&M systems, such as Workday (for payroll, health insurance details, etc.), Time & Effort, etc.

*4.2 New Lab Member Essentials and Onboarding Tasks*

Access: Ensure you have your Aggie ID and required building/lab access; ECCB building is open during working hours, but your Aggie ID is required to access the building in off-hours (nights and weekends).

Orientation: Attend university and ECCB departmental graduate orientations and any graduate student-specific onboarding sessions. Dr. Hogan and others in the FDL will orient you to the lab and working spaces in ECCB. Note that the keypad access code to our lab space (room #418 in ECCB) is 52527.

Workspaces: You will be assigned a workspace and provided access to shared spaces via ECCB. An institutional computer may be provided to you through AgriLife, and access to software will be provided through the University. Please take the initiative to learn where to store personal items and lunch, and how to use common facilities (e.g., break rooms/kitchen, printers).

Computers, software, and literature access: You may be provided an AgriLife computer, depending on your position. AgriLife computers are administered through AgriLife IT (you will not have administrator privileges on this computer). If you have an AgriLife computer, please use AgriLife IT support to coordinate all software installations, printer setup etc. Otherwise, you are expected to use a personal computer for your work (you may find it useful to have both). Please keep data and working file backed up to the cloud (OneDrive, Dropbox, etc. You will be granted access to a shared OneDrive and lab Dropbox. Use your tamu.edu/ UIN credentials to log in to the software provided by Texas A&M (e.g., ArcPro). Most journals can be accessed via campus internet (or using the VPN when off campus). Direct questions regarding software and journal access to the Texas A&M Libraries.

Health and safety: Follow lab safety rules; know the location of restrooms, first-aid kits, safety equipment, and evacuation routes. Initiate required compliance training (Traintraq, etc.) promptly.

Ensuring success: The first 90-days in any new position are crucial to getting off to a good start. During this time, please complete your Individual Development Plan (IDP) for your first year, outlining areas for skill and professional development, and making sure that your goals and milestones are measurable. Additionally, share a short (1-2 page) research vision for your dissertation/thesis with Dr. Hogan and the lab. It should include a summary of the literature (past research) and the identification of the knowledge gap you seek to address with your work (including research questions and hypotheses).

Lab Website: Please take the time once you join the lab to prepare a short description of yourself, both professionally and personally, for inclusion on the lab website. Please email that, along with a picture that clearly shows your face and that you are comfortable with being posted on the internet, to Dr. Hogan.

### *4.4 Materials to Review*

Dr. Hogan may provide relevant grant proposals, recent manuscripts, and key background papers for you to review based on your research direction.

ECCB Graduate Student Handbook sections on forms, room scheduling, building access, safety resources, RCR training, and departmental contacts; note orientation requirements and campus resources that support your work and development

## 5. Working in the Lab and the Field: Expectations of Lab Members

Shared expectations help us do rigorous science and sustain a positive team environment. We learn together, hold each other accountable, and support one another.

### *5.1 What You Should Expect from Me as Principal Investigator*

*I (Dr. Hogan) promise to*:

1. be available for regular one-on-one meetings, timely feedback, and ad hoc support when issues arise
2. provide scientific training, coaching, and resources; model responsible conduct, integrity, and open science practices
3. foster psychological safety and respectful communication; listen actively, invite diverse viewpoints, and address concerns directly and constructively.
4. help set clear goals, timelines, and standards; align expectations and re-align them as needed based on progress and capacity.
5. coordinate the team through purposeful agendas, documented decisions, and follow-ups; remove barriers and secure resources.
6. discuss authorship early and revisit as work evolves; ensure fair credit, transparency, and clarity on roles and responsibilities.

7. manage conflicts and difficult conversations using assertive, empathetic communication; prioritize collaborative problem-solving.
8. use structured decision-making under uncertainty and teach the SMARTER approach for complex, high-stakes choices.

**<u>Tips for working with me:</u>**

- If I miss a message or deadline, please send a polite reminder and propose options; include the decision needed and by when.
- Bring a brief written agenda to one-on-ones (progress, blockers, decisions, next steps); it keeps us efficient
- If a topic is complex, emotionally charged, or highly urgent, please request a quick Zoom/Teams call or ad-hoc meeting; it usually resolves faster than email.

*5.2 What I Expect from Lab Members*

*You agree to*:

1. uphold respectful, honest, and proactive communication; ask questions when things are unclear; openly and promptly share information that others need; maintain a positive attitude and collaborative spirit.
2. prepare for meetings; bring updates, roadblocks, and proposed next steps to the attention of Dr. Hogan and the lab group during meetings; document action items and follow through with their implementation.
3. maintain rigorous data practices: organized records, centralized storage, version control, backups, and accessible original data for review.
4. follow lab operating procedures and compliance protocols; complete required training(s) before performing regulated tasks; to report incidents transparently and honestly
5. collaborate with and train peers, and contribute to shared resources; be a good lab citizen by caring for shared spaces and equipment.
6. manage time and commitments responsibly; communicate early about delays, unexpected issues, or overwork; propose solutions and ask for help when needed.
7. develop a personal IDP, embrace feedback; implement suggestions, and circle back with results; develop and refine your skills over time.
8. practice safety in lab and field; use required PPE; stop work if unsafe and escalate potential safety issues appropriately.

## 6. Working in the Lab: Science and Data

Attention to detail and consistency are essential for rigor, reproducibility, and transparency. The procedures below are requirements, not suggestions.

### *6.1 Safety*

Please complete required emergency health & safety and role-specific safety training before starting work; follow PPE requirements and posted safety procedures at all times, especially when in the lab.

### *6.2 Equipment*

Only use equipment you are trained and authorized to operate. Complete training and supervised practice before independent use; Send documented training completion to Dr. Hogan.

Specialized equipment: Follow equipment operating procedures (OP) for calibration, maintenance, storage, and transport (e.g., GPS units, tablets for field data, sensors). Maintain equipment logs and report issues immediately.

### *6.3 Operating Procedures and Protocols*

Operating Procedures (Ops) and protocols define how we use instruments, conduct specifics tasks, and esure data quality and safety in the field and land. They are maintained on the lab shared drive, versioned, and linked to training materials

Follow OPs exactly; propose improvements through documented change requests. When procedures evolve, update OPs, retrain affected personnel, and note the effective date/version in records.

### *6.4 Record-Keeping Practices and Lab Notebooks*

Please keep complete personal notes and contemporaneous records of methods, parameters, raw data collection details (including dates and times) for lab and field activities.

### *6.5 Data*

We manage the full data lifecycle with care and rigor to ensure integrity, reproducibility, transparency, and compliance. All lab data and code must be organized, centrally stored, backed up, documented with metadata, and accessible to the PI for review. Sensitive data are handled per applicable protocols. Data may not reside solely on personal devices; field capture devices must be synced to approved storage promptly.

When a lab member departs, data and documentation are to remain accessible to the PI and will be transferred per university policy

### *6.5.1 Management and Integrity*

Storage locations: Use approved, centralized storage (e.g., TAMU-approved cloud (OneDrive) or department network drives (Dropbox)). Raw data are read-only in a dedicated "**/raw**" area; processed data and code reside in "**/processed**" and "**/analysis**" areas. Personal devices are permitted only for temporary field capture; upload the same day or as soon as connectivity allows
Backups: The Lab has automated backup rountines for cloud storage drives; weekly integrity checks. Field devices must be backed up within 24 hours of return. Document backup status in project logs and personal notes.
Access control: Grant least-privilege access by role; log access changes; remove or change access when roles shift or upon departure
Naming and organization: Use standardized file and folder naming conventions that encode project, date (YYYYMMDD), version, and content. Keep a project README.txt file in the main directory describing the organization structure of the directory, the data files, data variable dictionaries, processing steps, and other important information

### *6.5.2 Data Analysis and Interpretation*

Transparency: Keep analysis scripts reproducible and shareable within the team. In the FDL, we prefer literate programming (*e.g.*, R Markdown, Jupyter Notebooks) for reproducible workflows
Review: Present new data and analyses in lab or project meetings; review original data whenever feasible; discuss assumptions, uncertainty, and alternative interpretations
Methods: Choose appropriate statistical or modeling approaches; justify selections and document sensitivity analyses. Align with disciplinary reporting standards when available

### *6.5.3 Intellectual Property and University-Owned Data*

Ownership: Data and materials produced with university resources are typically university-owned. Maintain access and transfer to the PI per TAMU policies when leaving the lab
Confidentiality: Follow sponsor and protocol-specific restrictions (*e.g.*, embargoes, confidentiality agreements). Do not share restricted data or code outside of the lab without Dr. Hogan's or the PI's authorization.

### *6.5.4 Data Sharing and Open Science*

Data Archiving: Use recognized repositories (e.g., Dryad, Zenodo, Figshare, institutional repositories) when permitted. Deposit data and metadata upon publication or per sponsor timelines.
Code: Share code on recognized platforms (e.g., GitHub) when appropriate; mark versions clearly and include licenses. Have shared code pull data from data archives and implement processing steps and analyses.
Credit and citation: Provide persistent identifiers (DOIs), clear citations, and contributor roles (CRediT where supported). Acknowledge funders and facilities on shared archives.

Sensitive data exceptions: For data with confidentiality or compliance constraints (e.g., FIA actual plot coordinates), share aggregated or obfuscated (i.e., fuzzed and swapped original) versions of data or detailed metadata only, per protocol and agreements.
Reproducibility: All data and code should be developed, archived, and documented with reproducibility of analyses in mind. For manuscripts, include a reproducibility statement that links to data archives and code repositories when allowed.

## 7. When Things Don't Go Right in the Lab

Challenges, mistakes, and disagreements are part of doing complex science. We approach them with psychological safety, calm, and a focus on learning and improvement, so projects keep moving and people feel supported

### *7.1 Making and Disclosing Mistakes and/or Problems*

Expectations:

- Mistakes happen. The only mistake that cannot be addressed is the one that is hidden. Disclose issues promptly so we can stabilize, correct, and learn together

How to respond:

- Take a breath and slow down. Manage emotions before acting so you can think clearly.
- Stabilize the situation. Stop unsafe work, secure samples and equipment, note time and context.
- Get help. Notify the PI or project lead quickly; consult the relevant OP and compliance protocol
- Clean up and document. Record what happened, actions taken, and immediate impacts in personal notes
- Disclose. Share facts (not speculation) with the PI and affected teammates; if applicable, follow incident reporting procedures for EH&S
- Learn and teach. Debrief as a team to identify root causes, update OPs/checklists, and prevent recurrence. In the FDL, we treat accident and problem disclosure as a positive step toward rigor and safety

Common examples include mislabeled plots or tree tags; missing measurements; version-control errors; using outdated protocols; incomplete metadata; unnoted deviations from field/lab procedures. When we encounter these (and other situations, we handle them transparently and fix them.

### *7.2 Resolving Conflicts (with peers or PI)*

Conflict is inevitable in collaborative science and can be productive when handled well. We approach disagreements with respect, psychological safety, and curiosity, aiming to understand perspectives and solve problems together

Expectations:

- Address tensions early, privately, and directly. Maintain civility, avoid blame, and focus on behaviors and work products rather than personal judgments. Use the "collaborating" approach—high assertiveness and high cooperativeness—to seek mutually agreeable solutions; compromise when needed, and avoid competing or avoiding except briefly to cool down emotions

How to proceed:

- Manage emotions first: pause, breathe, and center yourself; if needed, take a short break before engaging. This reduces defensiveness and supports clear thinking. .
- Request a meeting: propose a timely, private conversation to discuss the issue and shared goals. Pick a format that supports real-time dialogue (in person or a zoom/Teams meeting) rather than email .
- Use assertive communication: share observations and needs with "I" statements, avoid extreme language, and acknowledge the other person's viewpoint and shared aims
- Listen actively and take perspective: ask open-ended questions, paraphrase to confirm understanding, and separate facts from interpretations. Assume good intent while clarifying impacts
- Co-create solutions: brainstorm options, agree on specific actions, timelines, and roles. Document decisions and next steps; follow up to ensure the plan is working
- When the power dynamic differs (e.g., conflict with PI): Dr. Hogan will set a supportive tone, invite your perspective, and work toward fair solutions. Trainees should bring a short agenda (issue, impacts, proposed options) and can request a neutral facilitator, if helpful..

Escalation and support:

- If direct resolution stalls or the situation involves policy concerns, seek confidential guidance from departmental resources (*e.g.*, Graduate Advisor, Diana Wood), or ECCB graduate student support staff, ECCB Climate committee or others who can refer you to appropriate university offices or conflict-resolution resources. Use neutral third parties for task coordination when necessary, and avoid gossip or triangulation that fuels the "drama triangle" dynamic.

Potential scenarios may include:

*Authorship/order*: revisit project contributions and lab/authorship policies; aim for transparency and fairness; consider co-first authorship when appropriate and clearly document roles. *Work style differences (e.g., pacing, communication)*: clarify expectations and deadlines; agree on check-in cadence and collaboration norms; appreciate complementary strengths. Resource or priority conflicts: explain rationales behind decisions to support fairness perceptions; seek creative alternatives (sharing, scheduling, substitutions)

*7.3 Problem Solving Strategies (The SMARTER Approach)*

Consider using the SMARTER Approach when a situation is complex, novel, high-stakes, or emotionally charged. It helps you slow down, think clearly, and choose effective actions.

- **S**eek help: Get objective input and information from trusted mentors, peers, HR, or Ombuds resources. When needed, request neutral facilitation focused on tasks and next steps, not gossip or triangulation.
- **M**anage emotions: Pause, breathe, and center yourself before engaging. Don't act while emotionally compromised; choose a calm, supportive tone so you can think and communicate clearly.
- **A**nticipate consequences: Map short- and long-term outcomes, affected stakeholders, and trade-offs for each option. Consider how your choices will be perceived and documented.
- **R**ecognize rules and context: Identify causes, power dynamics, and constraints. Check applicable policies and protocols (*e.g.*, EH&S, authorship norms) and align actions accordingly.
- **T**est assumptions and motives: Challenge your interpretations and self-serving biases; consider others' intentions with humility. Verify facts before drawing conclusions.
- **E**valuate outcomes: After acting, assess what worked and what didn't; solicit feedback; document results and lessons learned.
- **R**evise your approach: Apply insights to update SOPs, workflows, expectations, or training. Follow up to confirm the solution is working and adjust if needed.

## 8. Working in the Lab: Lab Policies

The work policies of the lab ensure a safe, respectful, and productive environment and align with Texas A&M ECCB procedures and university requirements. We balance work flexibility with clear expectations, and we follow institutional rules for safety, research integrity, and employment practices

*8.1 Work Hours*

- Core working/collaboration hours: Please aim to be available for messages, emails, lab collaboration, meetings, and mentoring during standard business hours (approximately 9 a.m.–5 p.m.). Flexibility is supported based on fieldwork, teaching, and analysis needs; coordinate schedules with your PI and project leads.

- After-hours building access: WFES lobby doors lock outside 8 a.m.–5 p.m. Keep your Aggie ID with you. If locked out, contact another lab member, Dr. Hogan. Or the department assistant (currently Dawn Miles), in that order, for entry. Access to labs is restricted; do not grant access to anyone without credentials. Failure to comply may result in loss of building access .
- Remote work: Allowed with PI approval when compatible with responsibilities. Maintain communication, availability, and data security.
- Fieldwork/teaching: Expect variable hours. Plan ahead, adhere to safety and travel rules, and communicate impacts on meeting attendance and deadlines.
- Lab employees are required to log their work hours and keep a record of tasks completed. Time and effort reporting should be done weekly via email to Dr. Hogan

*8.2 Time Off*

- Requesting time off: Please notify Dr. Hogan as early as possible (ideally ≥2 weeks in advance for non-emergency leave). Coordinate with other lab members to avoid critical periods (field campaigns, proposal deadlines, teaching obligations). Add approved leave to the shared calendar.
- Graduate Student: Time off must align with assistantship, teaching, and research commitments. Maintain continuous registration requirements and consult the Graduate Advisor or Program Specialist if leave intersects with degree milestones or other key departmental events needed to graduate.
- Travel-related leave: When travel is university-related, complete required travel authorization requests (Concur for employees; Student Activities Travel Form and Education Abroad registration for international trips) per ECCB procedures

*8.3 Code of Conduct*

- Respect and professionalism: Maintain civility, inclusion, and psychological safety. Treat colleagues respectfully in person and in writing; no harassment, discrimination, or bullying.
- Safety and compliance: Follow EH&S and all departmental protocols (especially in the lab); complete required RCR training and role-specific safety training before beginning regulated tasks.
- Building and lab access: Use your credentials; do not grant access to unauthorized individuals. Only trained and authorized members may be in restricted lab spaces. Follow room booking rules; leave rooms and equipment clean.
- Vehicles: Only authorized personnel may drive university/agency vehicles; complete required Van Safety training

*8.4 Performance Reviews*

- Graduate students: Progress is reviewed via regular one-on-ones, annual committee meetings, and milestone checks (degree plans, proposals, prelims, defense). Consult the Graduate Advisor on forms and deadlines; Graduate and Professional School timelines and department procedures apply.

- Employees: Annual performance reviews are required by the university HR process. Dr. Hogan will provide routine feedback year-round and document goals, progress, and areas for improvement; if performance problems persist, we follow HR-guided steps, including informal coaching and, if needed, a Performance Improvement Plan (PIP).
- Ongoing feedback: You will receive timely, constructive input on your work. You are encouraged to ask for feedback if unsure how you are doing. Concerns are raised early and addressed directly and respectfully

### *8.5 Professional Development*

Dr. Hogan and ECCB will do their best support professional development through university and departmental resources: Graduate and Professional School academic success resources, Writing Center, RCR workshops, TA training, and relevant seminars/courses. However, it is your responsibility to help guide that process (e.g., by completing IDP, identifying avenues of development and opportunities that align with your goals) and participating in your professional development to the best of your ability. Dr. Hogan will seek to support professional development activities, including conference attendance, training, and letters of recommendation, contingent on funding and alignment with goals. Discuss opportunities during one-on-one meetings and include them in your IDP. Build your network and mentoring relationships; seek multiple mentors, collaborate broadly, and develop complementary skills to advance your career

### *8.6 Leaving the Lab*

We aim for positive, well-planned transitions. Communicate early about timelines and next steps. Data, code, and documentation must be organized and transferred per university policy; authorship, data ownership, and unfinished work will be discussed and documented.

#### *8.6.1 Planned and Voluntary Separation from the Lab*

- Provide as much notice as possible; help transition responsibilities and train successors when feasible.
- Transfer all data, code, and materials to approved storage; ensure the PI retains access. University-owned data must remain with the institution when you depart.
- Discuss authorship/order for ongoing manuscripts, acknowledgements, and any embargoes or repository deposits; document agreements and timelines.
- For employees, follow departmental HR processes and required notice periods; coordinate with the business office for final payroll and benefits. For students, ensure degree milestones and forms are on track; consult the Graduate Committee and Graduate Professional School deadlines.
- Complete exit interview with ECCB HR
- Update contact info for future correspondence; agree on availability for post-departure questions; set boundaries for scope and duration.

*8*.6.2 Involuntary Separation or Termination

While rare and not desired, some lab memberships end involuntarily due to persistent performance problems, policy violations, or funding cuts. We will handle these situations directly, respectfully, and in alignment with university policy.

- Follow HR-guided process: The lab and department will strive to address concerns early with informal conversations and documented feedback; if issues persist, implement a formal Performance Improvement Plan (PIP) with clear goals, timelines, and consequences. Certain policy violations may necessitate immediate action without a PIP. Always consult HR before any involuntary separation and follow their procedures.
- Make the conversation clear and compassionate: State the decision unambiguously, avoid debate, allow questions, and keep the meeting brief. If HR advises it and appropriate, a negotiated voluntary resignation may be offered to the employee in lieu of termination. Be steady, professional, and kind throughout.
- Handle logistics and data integrity: Return university/agency property (keys, ID badges, equipment, vehicles/cards), and conduct exit interview with ECCB HR.
- Revoke building/lab and IT access (shared drives, cloud storage, Slack/Teams, GitHub, calendars).
- Verify complete transfer of data, code, and documentation to approved storage; ensure the PI retains access. Remove or change permissions upon departure.
- Communicate to the lab: Inform the team face-to-face when feasible, without sharing sensitive details. Emphasize respect for the departing members, reassure others, outline workflow adjustments, and keep the team focused on goals and norms for civility and professionalism.
- Funding loss (“termination without cause”): If separation is due to loss of funds, communicate transparently and follow HR reduction-in-force procedures. Prioritize dignified transitions and support where possible.
- Research trainees: When concerns involve graduate students or postdocs, seek guidance.

## 9. Responsible Conduct of Research

Responsible Conduct of Research (RCR) is foundational to our lab’s integrity, credibility, and impact. We commit to honesty, objectivity, transparency, rigor, and compliance in all phases of research—design, data collection, analysis, reporting, mentoring, and collaboration. Texas A&M requires RCR training for all researchers and provides compliance offices and resources to support ethical, auditable work.

*9.1 Compliance*

- Why it matters: Noncompliance can halt projects, trigger audits or sanctions, risk funding, erode trust, and harm the lab's reputation. Compliance enables safe, ethical, and legally sound research and protects our team and partners.
- Required training: Complete university RCR training and any applicable compliance modules before starting regulated work. Keep certifications current per university timelines.
- Offices and resources: TAMU's Office of Research Compliance provides training, policies, and support for research (e.g., biosafety, export controls). One sensitive area of compliance involves collaboration with high risk countries (China (including Hong Kong and Macau), Iran, Cuba, North Korea, and Venezula Maduro Regime). If you have questions, please ask. Dr. Hogan will ensure your activities are compliant with all university and agency (AgriLife) policies.
- Audits/readiness: Maintain current protocols, OPs, records, and meticulous personal notes; store data properly; document deviations and corrective actions. This increases the likelihood of successful audits and reduces risk.

*9.2 Writing and Adhering to Compliance Protocols*

- Follow approved protocols exactly. If changes are needed, submit a modification and receive approval before implementing changes.
- Incident reporting: Promptly disclose protocol deviations, adverse events, and safety incidents to the PI. Reporting is required and supports transparency and corrective action; it does not inherently imply wrongdoing.
- Documentation: Keep protocol versions, approvals, amendments, training sign-offs, and related standard operating procedures organized and accessible for review.

*9.3 Authorship in the Lab*

- Criteria: Authorship requires substantial contributions to conception/design or acquisition/analysis/interpretation; involvement in drafting or revising; final approval; and accountability for the work. Contributors who do not meet these criteria should be acknowledged.
- Authorship order: Determined by the relative magnitude and nature of contributions (e.g., intellectual leadership, data collection, analysis, writing, project coordination). Co–first authorship may be used when appropriate and must be clearly indicated.
- Process: Discuss authorship early (project launch) and revisit as contributions evolve. Document decisions and rationale; resolve disputes transparently and fairly with PI facilitation. Use contributor role taxonomies (e.g., CRediT) where supported by journals.
- Responsibilities: All authors review the final manuscript and agree to be accountable for their contributions and to address questions that arise.

*9.4 Proper Citation and Writing with Integrity*

- Cite accurately and completely; represent others' ideas fairly. Use quotation marks for verbatim text in notes and drafts to prevent accidental plagiarism in manuscripts.
- Avoid copy–paste drafting from sources; summarize in your own words and track references carefully. Use reference management software to organize citations and versions.
- Ask for guidance when uncertain; the PI will help you find resources and mentor you in proper citation practices and scientific writing standards

*9.5 Fabrication, Falsification, and Plagiarism (FFP)*

- Definitions: Fabrication is making-up data or results; falsification is manipulating materials, equipment, processes, or data to misrepresent findings; plagiarism is using another's ideas, processes, results, or words without appropriate credit.
- Policy: Research misconduct is not tolerated. If you have concerns, raise them promptly with the PI. TAMU designates research integrity officials and processes for handling allegations; consult the university resources through the department head or other avenues for confidential guidance.
- Prevention: Maintain rigorous record-keeping, retain original data, use version control, conduct QA/QC checks, and seek feedback to ensure accuracy and reproducibility.

*9.6 Conflicts of Interest and Conflicts of Commitment*

- Definitions: A conflict of interest (COI) occurs when personal, financial, or professional interests could bias—or appear to bias—research decisions. A conflict of commitment (COC) involves outside activities that interfere with university responsibilities.
- Policies: TAMU has COI/COC policies and disclosure requirements (through the Huron system), which are especially important for lab staff or post-doctoral researchers; please follow them and disclose all COI entities and activities, as required by TAMU & AgriLife policy.
- Management: Disclose potential conflicts early to the PI and appropriate offices; implement management plans (e.g., recusal from specific decisions, data firewalls, transparent reporting in manuscripts) to protect objectivity.
- Multi-role relationships: Supervisory, collaborative, and personal relationships can complement work but may require clear boundaries,

*9.7 Statement on Respect and Equity in the Field*

(Note: this section of the Lab Manual was developed using resources from Ben Blonder's Macroecology Lab at UC Berkley)

The lab is committed to building a respectful, inclusive, and equitable environment to foster the well-being and productivity of all members.
I acknowledge that the field, while often geographically remote and temporally bounded, represents a professional workplace. As such, all institutional behavioral expectations, professional codes of conduct, and sexual harassment policies apply. These expectations include but are not limited to avoiding unwanted sexual advances,

unsolicited comments on physical appearance, unnecessary testing of people's physical or emotional limits, hazing traditions, inappropriate jokes, and gendered divisions of labor.

Lab members acknowledge that the relative social isolation, intense working environments, challenging physical conditions, limited external communication facilities, and cultural aspects (*e.g.*, foreign cultural norms; field culture expectations, including hazing traditions) of field work can create an environment where harassment and assault (sexual and non-sexual) occur more frequently than on campus or in the laboratory[1]. Lab members acknowledge that research has shown that there is a long history of harassment in scientific fieldwork and that the issue persists[2]. I also acknowledge that victims of discrimination, harassment, and assault in scientific fieldwork often experience long-lasting damage to their emotional and physical well-being and to their careers[2,3].

Lab members also realize that in field contexts, the boundaries between work and personal time and between colleagues and personal acquaintances can be unclear and diffuse. Lab members agree to be mindful that they represent the FDL, AgriLife Research and Texas A&M University (to varying capacities and degrees) even when not working and will exercise good judgment and always meet responsible behavior standards. While the FDL does not determine how lab members spend their personal time in a field context, all lab members acknowledge that their personal choices can impact others' work experiences, and that, if they do, their choices become subject to lab, agency (AgriLife), and university policies.

With this context in mind, all lab members agree to respect all team members, researchers, field station staff, and community members equally throughout the field season, and to do their best to support and speak up for others. Lab members understand that violating behavioral and harassment policies will result in consequences, including changing behavior, making a public apology, having my other professional contacts/employers /funders notified, and/or being asked to leave the FDL.

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[i] This Lab Manual was developed as part of the COMPASS program for new faculty (https://researchercompass.org/) Fall 2025 Cohort. Much of the Material used here was drawn from COMPASS

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[1] Woodgate et al. (2018). *Preventing Harassment in Fieldwork Situations*. Report from the University of Washington's Respect and Equality in Fieldwork (REIF) 2017 Committee. link

[2] Nelson et al. (2017). Signaling Safety: Characterizing Fieldwork Experiences and Their Implications for CareerT rajectories. *American Anthropologist*. Vol. 119, No. 4, pp. 710–722. DOI: 10.1111/aman.12929

[3] Gibbons, A. (2014). Sexual Harassment is Common in Scientific Fieldwork. *Science Magazine*. link