SAFS Graduate Student Annual Review

SAFS graduate students and their faculty advisers are strongly encouraged to check-in at least once annually to discuss the student’s degree progress, review milestones/goals, and address any challenges that might emerge throughout the degree work. This meeting provides an opportunity for both students and advisers to reflect on communication and engagement styles and needs (ie. timing of meetings, how to frame feedback, setting deadlines, etc.); mutual goals and external deadlines on finishing the degree; and how to balance personal health/life with studies and work responsibilities (ie. RA or TA).

In support of this annual meeting, there are three forms the student and adviser can use for planning and summarizing the meeting. These forms provide guidelines that help to standardize review practices across the School. The first two forms (Student & Advisor Annual Review) mainly serve to facilitate communication between student and advisor and can be adjusted to the needs of specific individuals and research groups. These two forms should be made available to the student's committee for its annual meeting and kept on file by the student’s adviser. The final Annual Committee Meeting Report is to be completed by the committee and then submitted electronically via the SAFS Grad Milestone Form - the report will be reviewed by the SAFS Graduate Student Coordinator fand then kept in the student’s file.

# Annual Review consists of four steps

1. **Individual reports**
   1. Grad Student completes SECTION 1: Annual Student Report
   2. Faculty Adviser completes SECTION 2: Annual Adviser Report
2. **Student / Advisor meeting**
   1. Meet to discuss individual reports
   2. Define specific goals for the next academic year including any planned exams
   3. After meeting, Faculty Adviser will distribute both reports to Committee
3. **Committee meeting**
   1. Meet to discuss independent reports or distribute them electronically
   2. Revise and/or approve goals for next academic year
   3. Committee discusses and completes SECTION 3: Annual Committee Meeting Report, and sends it to Student for a response
4. **Submit completed form**
   1. Faculty Adviser submits completed Committee Report: <https://tinyurl.com/SAFSGradMilestonesForm>

SECTION 1. Annual Student Report

Grad Student: Complete this form independently then shared with Faculty Adviser at One-on-One Annual Review meeting

**Name:****Michael Kinneen** **Faculty Adviser:****Dr. Andre Punt** **Date:** **06/09/2024**

**Degree Program: X MS** **☐PhD Date of last Annual Review:****04/07/2023** 

# A. Coursework completion

List courses completed last year

|  |  |
| --- | --- |
| ☐ Q SCI 482  ☐ FISH 521  ☐ FISH 522  ☐ 5-TEEN:  ☐ 5-TEEN: | ☐ Other:  FISH 497  ☐ Other:  FISH 558  ☐ Other:  FISH 551  ☐ Other:  FISH 600  ☐ Other: |

# B. Degree Progress

What is your progress relative to program milestones (including class requirements and exams completed, if applicable)?

|  |  |
| --- | --- |
| **MS Degree** – check completed milestones | **PhD Degree** – check completed milestones |
| Checkmark with solid fillForm Committee   * Plan of Study * Committee Meeting * Thesis Proposal   ☐ Other: | ☐ Form Committee  ☐ Plan of Study  ☐ Committee Meeting  ☐ Qualifying Exam  ☐ Dissertation Proposal  ☐ General Exam  ☐ Other: |

# C. Professional Accomplishments

1. **Very briefly summarize your research activities from the past year.**

* Completed Graduate research proposal.
* Created a full simulation frame for cod-like life history.
* Started developing halibut-like operating model.
* Developed r framework to run models at retrospective intervals.
* Developed r framework to calculate MASE values across hindcast types.
* Developed r framework to estimate T1 and T11 error probabilities for different MASE distributions.
* Took part in the Bering Sea CPS trawl survey in March 2024
* Constructed an annotated bibliography of relevant literature in model misspecification, model selection, model weighting, and scale-free error metrics.
* Completed 4/6 section of chapter 1 manuscript.

1. **List experiments completed and data collected.**

* Full simulations for cod-like life history across 9 different scenarios. Each scenario relates to the misspecification of a specific process in the OM or EM.
* Conducted a depletion sensitivity for each different simulation scenario across three fishing patterns.
* Conducted a decision analysis to calculate T1 and T11 error rates for different simulation scenarios.

1. **List peer reviewed publications, oral, and poster presentations.**

* Fish 558 final project presentation

1. **List teaching, outreach, service, and professional development activities.**

    - Mentored a capstone student for winter/spring 2024. I helped the student conduct a simulation in ss3sim to explore the bias and precision tradeoff in stock assessment.

* Hosted the SAFS-NOAA think tank for the academic year 2024.
* Took part in the Bering Sea CPS trawl survey in March 2024

1. **List awards.**

# D. Prior Goals and Objectives

1. **What were your goals for last year?**

* Complete all three OMs (cod-like, sardine-like, and halibut-like) to be used in simulations.
* Complete analysis required to conduct hindcasts at different intervals (1,3,5 years), summarize the results, and calculate scenario-level MASE distributions.
* Complete Drafts 1 and 2 of thesis chapter 1.

1. **Which goals have been met, which have not?**

**Met**

Complete analysis required to conduct hindcasts at different intervals (1,3,5 years), summarize the results, and calculate scenario-level MASE distributions.

**Not met**

* Complete Drafts 1 and 2 of thesis chapter 1.   
  **4 of 6 sections for the initial draft have been completed.**
* Complete all three OMs (cod-like, sardine-like, and halibut-like) to be used in simulations.  
  **Cod OM has been finalized. Halibut OM has been started but is not yet complete. Sardine OM has been developed though not extensively tested yet.**

# E. Self-Evaluation

1. **For last year's goals that were met, please mention any specific things that you feel were important to this success.**

Overall, I think the biggest thing that contributed to my success was establishing a strong knowledge base for stock assessment, simulation analyses, SS3, and ss3sim. In addition, having a good level of access to my supervisor and senior lab mates was invaluable for developing the analysis thus far, and correcting mistakes that were initially made when developing the models.

1. **For last year's goals that were not met, why do you think this might be? What could help remove these barriers?**

I think the major reason that I have not yet completed a draft of chapter one is that when I first began at SAFS I lacked the knowledge of the theory and relevant literature to complete an acceptable literature review. As my knowledge has increased, both through classes and reading of relevant literature, I have started making significantly more progress on my chapter 1.

For the development of the OMs, I feel the majority of the work stemmed from learning how to correctly build models in stock synthesis. Having now completed one full OM (cod OM’s), I feel developing further Oms will be more straightforward. With that said one of the species to be modeled (Halibut) is complex to model, due to a high number of parameters and processes that vary across time, space, and age.

# F. Comments for Advisor

**Provide feedback for the advisor, including what worked well and what the advisor can do in the next year to help you succeed.**

I felt fully supported by my advisor and he was able to provide key advice for different aspects of the project. As I enter the final year of my master's, I think that I would benefit from more regular meetings (every 2 weeks) to keep on track with completing analysis, drafts, and chapters.

# G. Future Goals and Objectives

1. **Summarize your goals for each quarter of the coming year.**

**Summer 2024**

- Complete Chapter 1 draft 1.

- Incorporate edits and have Chapter 1 finalized before the end of summer.

- Develop a simulation frame for the sardine model.

- Finalize halibut like OM.

- Finalize framework for MASE values for two hindcast types (truncating years, removing catch series).

**Autumn 2023**

* Compose a framework to compare model selection via MASE with other common methods (LRT, AIC (where possible).
* Finalize framework for determining the distribution of MASE which are indicative of a i) misspecified model and ii) a correctly specified model. This was partially completed for the 558-class project but needs more work.
* Calculate MASE for both hindcast types for i) sardine and ii) halibut-like OM’s.
* Begin manuscript for chapter 2

**Winter 2024**

* Compare model weighting via MASE with current state-of-the-art ensemble model weighting approaches.
* Submit draft 1 of chapter 2, incorporating advisor and committee feedback.

**Spring 2024**

* Finalize Chapter 2 manuscript.
* Defend thesis

1. **Summarize your long-term goals.**

- Explore potential employment opportunities in stock assessment in WA, AK, and Ireland.  
- Begin looking at potential PhD projects and advisors

1. **For the coming year, list any planned courses, exams, research proposals, manuscript submissions, presentations, teaching, etc.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course** | **Name** | **Quarter** | **Credits** |
| FISH 559 | Numerical computing for natural resources | AU24 | 5 |
| FISH 554 | Beautiful graphics in r | SP24 | 2 |
| FISH 576 | Applied Stock assessment | WI24 | 3 |
| CHEM E 599 | Topics in Data science | AU 24 | 2 |

**Research proposals and Manuscripts.**

* Master’s chapter 1 draft (lit. review).
* Master’s chapter 1 final (lit. review).
* Master’s chapter 2 draft.

**Presentations**

* Quant sem AU 2024.
* Think Tank WI 2024

SECTION 2. Annual Adviser Report

Faculty Adviser: Complete this form independently then shared with Grad Student at One-on-One Annual Review meeting

**Name:**       **Faculty Adviser:**       **Date:**

**Degree Program: ☐ MS ☐ PhD Date of last Annual Review:**

# A. Milestone Progress

**Have milestones been reached, and if not, why not?**

# B. Achievement of last year's goals

**List last year's goals, indicating their achievement and any obstacles**

# C. Summary evaluation for the student

**Is the student making satisfactory progress?**

☐ Yes

☐ Yes with reservations - Provide recommendations for improvement:

☐ No - Provide comments/reasons\*:

*\*The student should set up a time to meet with the Graduate Program Coordinator within one month from date of meeting. May result in probationary status in the program.*

# E. Goals for next year

**List goals by quarter: research, course work, teaching, outreach, dissemination**

## Qualifying Exam Plan *(if applicable*)

1. **When is the student planning on taking them, and what will be the format?**

1. **When should the student expect reading lists from the committee or other information to guide their studying?**

1. **What will each committee member plan on covering?**

# F. Funding for next year

**List funding by quarter for the next year (starting the next quarter after this annual review) – be as specific as possible; this isn’t set in stone and can change.**

AUTUMN QUARTER:

WINTER QUARTER:

SPRING QUARTER:

SUMMER QUARTER:

# G. Self-evaluation

**As a mentor, what about your current mentorship style appears to work and what do you think could be improved upon?**

# H. Student response

***This section is to be completed by the Student prior to distributing to the Committee (additional pages can be used)***

SECTION 3. Annual Committee Meeting Report

Advisory Committee: Complete this form after annual meeting; share with student for response; then submit via the SAFS Graduate Milestones Form: <https://tinyurl.com/SAFSGradMilestonesForm>

**Name:**       **Faculty Adviser:**       **Date:**

**Degree Program: ☐ MS ☐ PhD Date of last Annual Review:**

# A. Preparatory Materials

**Student and faculty adviser will provide completed copies of the following forms to the committee ahead of the annual meeting:**

* GSAR Student Report
* GSAR Adviser Report

# B. Summary evaluation by the committee

**Committee agrees on the summary evaluation of the adviser:**

☐ Yes

☐ Yes with reservations - Provide recommendations for improvement:

☐ No - Provide comments/reasons\*:

**Committee agrees on the annual plan for the year following this review:**

☐ Yes

☐ Yes with reservations - Provide recommendations for improvement:

☐ No - Provide comments/reasons\*:

# C. Student response

**Student: Include comments or response to committee report here**