**Entomology and Nematology PhD Qualifying Exam** – rev. 10/18

Student ­­­­­­­­­­­­\_\_\_\_\_Date \_\_\_\_\_\_\_ Committee member\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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| **Student Learning Outcome** | | **SCORE** | **SCALE** |
| **SLO 1** (biology) | Information correct and relevant |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Question fully answered |  |
| Terminology and citations |  |
| Interpretation of content |  |
| **SLO 1 Biology SUM** |  |
| **SLO 1** (entomology/nematology) | Information correct and relevant |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Question fully answered |  |
| Terminology and citations |  |
| Interpretation of content |  |
| **SLO 1 Entomology/Nematology SUM** |  |
| **SLO 1** (research area) | Information correct and relevant |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Question fully answered |  |
| Terminology and citations |  |
| Interpretation of content |  |
| **SLO 1 Research area SUM** |  |
| **Student Learning Outcome** | | **SCORE** | **SCALE** |
| **SLO 2**  Experimental design, research methodology and statistics | Statistical understanding |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Experimental design understanding |  |
| **SLO 2 Experimental design and statistics SUM** |  |
| **Student Learning Outcome** | | **SCORE** | **SCALE** |
| **SLO 3**  Oral presentation skills 1 | Clarity - logical |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Clarity - eloquent |  |
| Confidence |  |
| **SLO 3 Oral presentation skills 1  SUM** |  |
| **SLO 3**  Written skills2 | Content and organization |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Syntax and mechanics – fluid and clear |  |
| Syntax and mechanics – error free |  |
| **SLO 3 Written skills2 SUM** |  |
| **Student Learning Outcome** | | **SCORE** | **SCALE** |
| **SLO 5**  Critical thinking and application of inquiry and analysis3 | Judgment |  | **4 = Exemplary**  **3 = Proficient**  **2 = Marginal**  **1 = Unacceptable** |
| Analysis of material |  |
| Synthesis of content |  |
| Reflection and evaluation |  |
| Advanced thinking and conceptualization |  |
| Logical flow |  |
| **SLO 5 – PhD** **Critical thinking** **SUM** |  |

These scores do not determine whether the student passes or fails the PhD qualifying exam. You can use the scores in your decision but there is no cut-off score below which the student fails the exam. All committee members should fill out a form and copies should be delivered to the Graduate Coordinator’s office for deposit in the student’s file. Supervisory committee chair - please share the results of this evaluation with your student, either summarizing their strengths/weaknesses or showing the individual score sheets.

SLO 1 (knowledge of discipline) = \_\_\_\_\_\_\_\_\_\_\_\_\_ (maximum 48, minimum 12)

SLO 2 (knowledge of statistical and research methodology) = \_\_\_\_\_\_\_\_\_\_\_\_\_ (maximum 8, minimum 2)

SLO 3 (oral communication skills) = \_\_\_\_\_\_\_\_\_\_\_\_\_ (maximum 12, minimum 3)

SLO 3 (written communication skills) = \_\_\_\_\_\_\_\_\_\_\_\_\_ (maximum 12, minimum 3)

SLO 5 (critical thinking ability) = \_\_\_\_\_\_\_\_\_\_\_\_\_ (maximum 24, minimum 6)

Additional comments

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|  | | **Exemplary (4)** | **Proficient (3)** | **Marginal (2)** | **Unacceptable (1)** |
| **SLO 1**  Identify insects, other arthropods and/or nematodes, and describe their relationship with the environment and humans (Max. points 48, min. 12) | General knowledge in biology | * All information presented is both accurate and relevant | * Nearly all information presented is accurate and relevant | * Many inaccuracies and some misinterpretation of content and largely irrelevant | * Inaccurate or misinterpreted content and almost entirely irrelevant |
| * Question is answered fully | * Question is essentially answered | * Multiple aspects of question unanswered | * Question not answered |
| * Proper use of terminology and citations | * Mostly proper use of terminology and citations | * Improper use of terminology and citations | * Misuse of terminology and citations |
| * Insightful interpretation of the content | * Demonstrates clear understanding of the content without misinterpretation | * Misinterpretation of content | * Gross misinterpretation of content |
| General knowledge in entomology or nematology | * All information presented is both accurate and relevant | * Nearly all information presented is accurate and relevant | * Many inaccuracies and some misinterpretation of content and largely irrelevant | * Inaccurate or misinterpreted content and almost entirely irrelevant |
| * Question is answered fully | * Question is essentially answered | * Multiple aspects of question unanswered | * Question not answered |
| * Proper use of terminology and citations | * Mostly proper use of terminology and citations | * Improper use of terminology and citations | * Misuse of terminology and citations |
| * Insightful interpretation of the content | * Demonstrates clear understanding of the content without misinterpretation | * Misinterpretation of content | * Gross misinterpretation of content |
| In-depth knowledge in area of research specialization | * All information presented is both accurate and relevant | * Nearly all information presented is accurate and relevant | * Many inaccuracies and some misinterpretation of content and largely irrelevant | * Inaccurate or misinterpreted content and almost entirely irrelevant |
| * Question is answered fully | * Question is essentially answered | * Multiple aspects of question unanswered | * Question not answered |
| * Proper use of terminology and citations | * Mostly proper use of terminology and citations | * Improper use of terminology and citations | * Misuse of terminology and citations |
| * Insightful interpretation of the content | * Demonstrates clear understanding of the content without misinterpretation | * Misinterpretation of content | * Gross misinterpretation of content |
| **SLO 2**  Discuss appropriate research methodology, including aspects of statistical design and analysis, in the execution of arthropod research  (Max. points 8, min. 2) | General knowledge in statistics and experimental method | * Answers all statistical questions correctly, in detail and logically | * Answers all statistical questions in some detail | * Attempts all statistical questions but has errors in answers | * Does not attempt to answer all statistical questions and/or has many errors |
| * Answers all experimental methodology questions correctly, in detail and logically | * Answers all experimental methodology questions in some detail | * Attempts all experimental methodology questions but has errors in answers | * Does not attempt to answer all experimental methodology questions and/or has many errors |
| **SLO 3**  Clearly and confidently communicate science in **oral** exam  (Max. points 12, min. 3) | Clarity | * Provides logically developed, thoughtful answers consistently | * Provides logical answers most of the time | * Answers may not be logical all the time | * Answers are confusing, illogical |
| * Language is eloquent | * Language is straightforward | * Language is awkward | * Language is poor |
| Confidence | * Confident in verbal communication skills | * Usually confident in verbal communication skills | * Somewhat confident in verbal communication skills | * Rarely confident in verbal communication skills |
| **SLO 3**  Clearly communicate science in **written** exam (*if written exam is given*)  (Max. points 12, min. 3) | Content and organization | * Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer’s understanding of the questions | * Uses appropriate, relevant, and compelling content to explore ideas within the context of the questions | * Uses appropriate and relevant content to develop and explore ideas throughout most of the exam | * Does not use appropriate and relevant content to develop simple ideas |
| Syntax and mechanics | * Uses language that skillfully communicates meaning to readers with clarity and fluency | * Uses straightforward language that generally conveys meaning to readers | * Uses language that generally conveys meaning to reader with clarity | * Uses language that sometimes impedes meaning |
| * Writing is virtually error-free | * Writing has few errors | * Writing may include many errors | * Writing has many errors |
| **SLO 5**  Critical thinking ability – ability to synthesize and extrapolate  (Max. points 24, min. 6) | Judgment | * Valid judgments based on evidence | * Nearly all judgments are valid and based on evidence | * Judgments are occasionally invalid | * Invalid judgments based on evidence provided |
| Analysis of material | * Analysis of material is insightful and conclusions are fully defensible | * Analysis of material is accurate and conclusions are defensible | * Analysis of material is inaccurate and conclusions are rarely defensible | * Indefensible conclusions |
| Synthesis of content | * Synthesis of content is clearly evident | * Content synthesized well for the most part | * Merely recalls information, lists and defines but rarely synthesizes content | * No synthesis evident |
| Reflection and evaluation | * Response is deeply reflective and evaluative | * Response is reflective and evaluative | * Responses are rarely evaluative | * Response is not reflective or evaluative |
| Advanced thinking and conceptualization | * Exhibits advanced thinking and conceptualization | * Exhibits clear thinking and conceptualization | * Little ability to detect patterns or conceptualize | * No advanced thinking or conceptualization |
| Logical flow | * Logical flow of ideas | * Ideas tend to flow logically | * Flow of ideas is rarely logical | * Illogical flow of ideas |