***CDB Exam Checklist***

**Name:**

**UIN:**

**Exam:**

**Committee Members:**

**Grading Scale**

Above Expectations (A) Meets Expectations (M) Below Expectations (B)

**Final outcome of this exam:**

Oral Written

 A M B A M B

1. Research question and rationale [ ]  **[ ]**  **[ ]** **[ ]**  **[ ]**  **[ ]**

*Can the student identify a big-picture question and describe the significance of addressing this question within and, if relevant, beyond the context of the field?*

**Specific Comments**:

2. Background and literature [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

*Does the student demonstrate an understanding of the current literature in the field, to a level expected for a 2nd year student, which identifies knowledge gaps/unanswered questions and supports the rationale of the proposed project? Has the student begun to critically considered the literature and prior work that supports their proposed project? Has the student, appropriately for their 2nd year level, considered the general strengths and weaknesses of the methodologies they plan to use?*

**Specific Comments**:

Oral Written

 A M B A M B

3. Experimental rationale, design and methods [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

*For a hypothesis-driven thesis project, are experimentally testable sub-questions or hypotheses formulated to address the central question? Are the proposed experiments organized and prioritized in a logical manner to address each question/hypothesis? Are various methodologies compared for their strengths and limitations? Is the research design feasible and likely to generate clear, interpretable data? Are alternative outcomes and potential pitfalls thoroughly considered?*

*For a methods/technique-development thesis project, are the aims organized and prioritized in a logical manner to address critical steps in the proposed techniques development? Is there an experimental plan for validation of the methodologies/techniques/measurements being developed? Is there a biological driver application to which this method/technique will be applied, and, if so, is there a suitable experimental plan? Are alternative outcomes and potential pitfalls thoroughly considered?*

*For a discovery-based thesis project, are the experimental systems adequately justified with an appropriate scientific rationale to justify the work. Is there a concrete plan for how the experimental data will be analyzed and an expectation of what types of observations might be expected? Is there a logical rationale for how the observations may discover new information of impact for the field? Is there a biological driver application to which this method/technique will be applied, and, if so, is there a suitable experimental plan? Are alternative outcomes and potential pitfalls thoroughly considered?*

**Specific Comments**:

4. Scope of proposed research [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

*Is the proposed project of sufficient scope for a PhD thesis? Is the proposal sufficiently ambitious to address an important question or methodological need in depth and to achieve mechanistic understanding when applicable? If the proposed project is overly ambitious for a PhD thesis, are various aims and experiments appropriately prioritized such that partial completion of the project will still be impactful?*

**Specific Comments**:

5. Productivity [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

*Is there any preliminary data? If not, why not? Are there controls, an indication of the number of times the experiment was performed, and statistics?*

**Specific Comments**:

 Oral Written

 A M B A M B

**Overall assessment:** [ ]  [ ]  [ ]  [ ]  [ ]  [ ]

A or M for both: PASS

B for both: FAIL

An A/M and a B: FAIL, DEFER or PASS

***This form will be completed by committee chair at the end of exam, and shared with the student along with a summary letter.***