## **Specialized Qualifier** for the Robotics Ph.D. Program

The Specialized Qualifier for the Robotics Ph.D. program requires a sequence of courses chosen by the student and advisor to strengthen the student's knowledge and experience in a focused area. It is composed of courses providing formal instruction with structured lectures, activities, and evaluation. While the Core Qualifier provides broad study in robotics, the Specialized Qualifier provides narrow, but deep, understanding. The Specialized Qualifier assists the student in becoming expert in a particular area so thoughtful consideration is recommended in composing a Specialized Qualifier sequence.

The courses should have coherence in subject matter. The topic or theme is often related to the student's area of thesis research, but this is not required. Thesis research will require independent study and research well beyond the Specialized Qualifier.

**The Specialized Qualifier courses must total at least 48 units**, usually four fullsemester graduate courses. [Under pre-2007 course of study, only 36 units are required.]

The following guidelines cover the usually applicable constraints and will help in composing a Specialized Qualifier sequence.

### SPECIALIZED QUALIFIER GUIDELINES:

- Graduate level (600 800-level) courses only
- No more than 12 units of non-doctoral (600-level) graduate courses
- No more than 12 units of project-only courses
- No more than 12 units of independent study

(Independent study courses must include syllabus, schedule, assignments, and evaluation criteria. Syllabus submitted with the SQ form.)

- Core courses can be used in the Specialized Qualifier sequence, but only in addition to 48-units of Core Qualifier courses
- Teaching Assistantships cannot be included as Specialized Qualifier courses

The Specialized Qualifier is to be approved by the Program Committee Chairperson prior to registering for the courses. An exception will be made for courses taken in the first semester of Ph.D. studies or at Carnegie Mellon prior to entering the Ph.D. program.

Approval of the qualifier will be based on judgment of educational value and whether it is reasonable to expect that it will provide expert understanding of a specialized area.

# **Specialized Qualifier**

for the Robotics Ph.D. Program

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### STUDENT:

Provide a brief but complete description of the Specialized Qualifier topic or theme and the objective for the student. (Use additional space if necessary.):

TOPIC:\_\_\_\_\_

CORE COURSES (for information only):

Number Name

### SPECIALIZED QUALIFIER COURSES:

Number	Name	Units

**REVIEWED BY ADVISOR:** 

\_\_\_\_\_ Date: \_\_\_\_\_

APPROVED BY PROGRAM COMMITTEE CHAIRPERSON:

\_\_\_\_\_ Date: \_\_\_\_\_

Units