

# DUAL PHD REQUEST FORM

## COMPUTATIONAL MATHEMATICS, SCIENCE AND ENGINEERING

The purpose of this form is (1) to help you plan your dual PhD in Computational Mathematics, Science and Engineering and a second subject and (2) to ensure that the Department of CMSE is aware of your intent to do so, and to make you aware of opportunities that may be available to you because of this. This form should be completed in consultation with your guidance committee during your first thesis committee meeting and returned either in person (to 1501 Engineering Building) or via email to the CMSE Graduate Director ([cmsegrad@msu.edu](mailto:cmsegrad@msu.edu)). The requirements for a dual PhD in CMSE and a second subject are described in Section 5 of the [CMSE Graduate Handbook](#), and several of the key specific requirements are referred to below by their number in the handbook.

**IMPORTANT:** As described in the university guidelines on [Dual Major Doctoral Degrees](#), "All dual major doctoral degrees must be approved by the Dean of the Graduate School. A request for the dual major degree must be submitted via GradPlan within one semester following its development and within the first two years of the student's enrollment at Michigan State University." **Most critically**, the intent to receive the degree in two areas must be outlined in the guidance committee report, and the PhD Degree Plan must reflect the required standards of both departments. Approval via GradPlan must come from the Graduate Directors of both departments, the College of the student's primary graduate program and the College of Engineering, and the Dean of the Graduate School. If you have any questions about this, please contact the CMSE Graduate Director ([cmsegrad@msu.edu](mailto:cmsegrad@msu.edu)).

In addition to the course requirements discussed in this document, please note that **students pursuing a dual PhD must have a dissertation project that significantly incorporates the practices and knowledge of both disciplines**. As such, the request for a dual PhD with CMSE must be justified during your first committee meeting, and will be evaluated annually by your thesis committee. Students whose work is deemed to be lacking sufficient aspects of their secondary field will not be allowed to receive the dual PhD.

**Once this form is completed and approved, you must initiate the Dual Major Request in your GradPlan.**

Student Name:  PID:   
Student Net ID: @msu.edu Current Program:   
Dissertation advisor:  Advisor Net ID: @msu.edu

**Degree Pursued (e.g., "Dual PhD in CMSE and Mathematics"):**

Primary Department:   
Secondary Department:

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Which program is your primary affiliation? In other words, to which program were you originally admitted?  
(Requirement 2)

CMSE  
 Another program:

Thesis committee names, MSU email, departmental affiliation (note that there must be at least one faculty member whose tenure home is in each department involved in this dual PhD – see Requirement 6):

|   |                                       |                               |
|---|---------------------------------------|-------------------------------|
| <input type="text"/><br>Committee Chair: Name (Print) | <input type="text"/><br>Department(s) | <input type="text"/><br>NetID |
| <input type="text"/><br>Committee Member Name         | <input type="text"/><br>Department    | <input type="text"/><br>NetID |
| <input type="text"/><br>Committee Member Name         | <input type="text"/><br>Department    | <input type="text"/><br>NetID |
| <input type="text"/><br>Committee Member Name         | <input type="text"/><br>Department    | <input type="text"/><br>NetID |
| <input type="text"/><br>Committee Member Name         | <input type="text"/><br>Department    | <input type="text"/><br>NetID |
| <input type="text"/><br>Committee Member Name         | <input type="text"/><br>Department    | <input type="text"/><br>NetID |

In which of the 4 core CMSE courses will you take your subject exams?

Required: 3 for CMSE as the primary program; 2 for CMSE as secondary. (Requirement 3)

- CMSE 820 – Mathematical Foundations of Data Science  
 CMSE 821 – Numerical Methods for Differential Equations  
 CMSE 822 – Parallel Computing  
 CMSE 823 – Numerical Linear Algebra

Explain your rationale for this choice:

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What other courses have you/do you plan to take to fulfill your CMSE cognate course requirement? Note: a minimum of 12 credits total (including CMSE core courses) must be computational in nature. Please list course number, course name, and credits

(Requirement 4):

If CMSE is not your primary department, please briefly describe your department's comprehensive exam requirement (Requirement 7):

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Students who pursue a dual PhD are working at the boundary of two disciplines, and to receive a dual PhD your research must significantly incorporate the practices and knowledge of both disciplines. Explain how your dissertation research significantly incorporates aspects of both Computational Mathematics, Science and Engineering and a second discipline<sup>1</sup>:

<sup>1</sup> If you have questions about this, consult the CMSE graduate director ([cmsegrad@msu.edu](mailto:cmsegrad@msu.edu)).

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**Attach a summary of your Individual Development Plan to this form** (<https://myidp.sciencecareers.org>)  
*(Required for all CMSE doctoral students AND dual CMSE students)*

Additional Notes:

Student Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Secondary Advisor Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
*(2<sup>nd</sup> advisor optional)*

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## Committee Members Approval (excluding advisor)<sup>2</sup>:

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            | Date                 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            | Date                 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            | Date                 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            | Date                 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            | Date                 |

## Graduate Director of other department<sup>2</sup>:

|                      |                      |
|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> |
| Name (Print)         | Signature            |
| <input type="text"/> | <input type="text"/> |
| Date                 |                      |

Graduate Director MSU Email: \_\_\_\_\_

## Graduate Secretary of non-CMSE department:

|                      |                      |                      |
|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> |
| Name (Print)         | Email                | Date                 |

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Upon completion of this form, please return to the CMSE Graduate Secretary and Graduate Director via email at [cmsegrad@msu.edu](mailto:cmsegrad@msu.edu) or in hard copy to Room 1501, Engineering Building, for final review and the CMSE Graduate Director's signature and College level final approvals.

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**CMSE Graduate Director:**

**Bill Punch**

CMSE Graduate Director

Signature

Date

*<sup>2</sup>Email approvals will be accepted in lieu of signature(s) on the paper copy of this form for any member of the committee or the graduate director of the non-CMSE department. Emails must be sent to the student who will then attach or submit with this form.*

**Associate Dean, Primary College:**

Name (Print)

Signature

Date

**Associate Dean, Dual Major College:**

Name (Print)

Signature

Date

If you have questions about the dual major requirements, consult the CMSE graduate director ([cmsegrad@msu.edu](mailto:cmsegrad@msu.edu)).