1. Will this new course affect a current program?                        Yes ☐ No ☑
   If "yes", has a Program Revision Form been submitted concurrently? Yes ☐ No ☑

2. Teaching Department: Physics

3. Administering Faculty/Unit: GPSO

4. Campus
   (Downtown, Macdonald, Off Campus, Distance Ed, Other – specify)
   - Downtown

5. Effective Term of Implementation
   (Ex. Sept. 2004 = 200409)
   - Term: 200709

6. Responsible Instructor
   - A. Clerk, H. Guo

7. Course Title (Limit 30 Characters) - required for all courses:
   - Many-body Physics

8. Course Number(s)
   Indicate course number & the number of terms spanned:
   (tick all that apply)
   - Subject/course number: PHYS 717
   - Course(s) Span:
     - 1 term ☑
     - 2 consecutive terms (D1, D2) ☐
     - 2 non-consecutive terms (N1, N2) ☐
     - 3 consecutive terms (J1, J2, J3) ☐

9. Course Title to Appear in the Calendar (optional)
   (Limit 59 characters):
   Note: This can ONLY be an expansion of word(s) abbreviated in the 30 character course title above.
   - Many-body Physics

10. Credit Weight
    (or CEU's for non-credit CE courses):
    - 3

11. Rationale for new course
    This proposed course is one of several changes to expand graduate core-level curriculum in condensed matter in the department of physics, as described in "Graduate Curriculum for Masters and Ph.D. Degree Students in the Department of Physics, Specializing in Condensed Matter Physics." Following the expansion of the department in this field, and the hiring of several new Facultyt, the proposed curriculum will provide coursework at the MSc and PhD level equal to that available at top-tier international programs.

12. Course Description
    (as it will appear in the Calendar [maximum 50 words]):
    (N.B. Faculty of Medicine must append complete course outline)
    - Real-time and imaginary-time Green functions; Diagrammatic perturbation theory; Quantum linear response and Kubo formulae; Path-integral techniques; Fermi gas; Impurity averaging; Interacting electron gas; Magnetism; Phonons & electron-phonon interaction; Superconductivity; Luttinger liquids

13. Supplementary information to appear in the Calendar in addition to the course description.
    Such as: equivalent course(s), contact hours, enrolment limitations, language of instruction etc.
    Please enter the information as it should appear in the calendar notes.
14. Schedule Types(s):
(Enter all that apply – see course guidelines for a complete list.)
(i.e. Lecture, Labs, Tutorial)

<table>
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<tr>
<th>Lecture</th>
<th>Hours per Week</th>
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Total Hours per Week: 3
Total Number of Weeks: 13

15. Projected Enrolment:

10

16. Required text and/or preliminary reading list sent to library?

X Yes  ☐ No

17. Prerequisite(s) (Courses or Tests)

Specify course number(s) or name(s) of test(s):

none

If the student does not have a prerequisite should web registration be blocked?
☐ Yes  ☑ No

If “Yes” complete A and B:

A. Indicate minimum grade or test score(s) the student must attain in prerequisite course(s) or test(s):


B. Can the prerequisite course(s) or test(s) be taken in the same term as this course?

☐ Yes  ☐ No

18. Corequisite(s) Course Number(s):

Specify course number(s) and title(s):

none

If the student does not register for the corequisite in the same term should web registration be blocked?
☐ Yes  ☑ No

19. Restriction(s):


20. Consultation Reports Attached

☐ Yes  ☑ N/A

21. Additional Course Charges (must be approved by the Fee Policy Committee)

Description of Fee
(e.g. screening fee)  Amount

None.

22. Requires Teaching, Physical, or Financial Resources

Not Currently Available (attach explanation)

☐ Yes  ☑ No
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<td>Date</td>
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<tr>
<td>Departmental Contact Person (name/phone/email)</td>
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