McGill

Course Revision Form

(07/2004)

1. Will this course revision 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: Science

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

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

6. Responsible Instructor: J. Vinals, M. Sutton

7. Credit Weight (or CEU's for non-credit CE courses): 3
   Old Credit Weight or CEU's (if applicable): 3

8. Course Number(s)
   Indicate course number & the number of terms spanned: (tick all that apply)
   Subject/course number: PHYS 559
   Course(s) Span:
   ☒ 1 term
   ☐ 2 consecutive terms (D1, D2)
   ☐ 2 non-consecutive terms (N1, N2)
   ☐ 3 consecutive terms (J1, J2, J3)

9. Number Change From:

10. Consolidation of Courses:

11. Split of Multi-Term Course:

12. Course Title (Limit 30 char.) - required for all courses.
    Advanced Statistical Mechanics
    Old Course Title (if applicable)

13. 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 in Box 12.

14. Rationale for revised course
    (1) Course Description is updated so that its content is harmonized with the content of the newly-created courses PHYS-657 and PHYS-660.

15. New Course Description
    (as it will appear in the Calendar [maximum 50 words]):
    (N.B. Faculty of Medicine must append complete course outline)
    Scattering and structure factors. Review of thermodynamics and statistical mechanics; Correlation functions (static); Mean field theory; Critical phenomena; Broken symmetry; Fluctuations, roughening.

16. Old Course Description
    (ma
    Self averaging and central-limit theorem; thermodynamic fluctuations; ensemble theory; surface roughening; broken symmetry and Goldstone's theorem; phase transitions; mean-field, Landau and Ornstein-Zernicke theory; Monte Carlo method; molecular dynamics; scaling; renormalization group; epsilon expansion; non-equilibrium theory.

17. 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.

18. Schedule Types(s):
(Enter all that apply – see course guidelines for a complete list.)

	Hours per Week		Hours per Week		Hours per Week
Lecture	3				

Total Hours per Week: 3

Total Number of Weeks: 3

19. Projected Enrolment:
30

20. Revised Prerequisite(s) (Courses or Tests) (in full)
Specify course number(s) or name(s) of test(s):

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

Old prerequisite course number(s) or test score title(s) (if applicable)

21. Revised Corequisite(s) Course Number(s) (in full):
Specify course number(s):

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

Old corequisite(s) course numbers (if applicable):

22. Revised Restriction(s):

Old Restriction(s):

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

Description of Fee **(e.g. screening fee)**	Amount
none	

24. Requires Teaching, Physical, or Financial Resources Not Currently Available (attach explanation)
☐ Yes ☒ No

25. Consultation Reports Attached
☐ Yes ☒ N/A

INFORMATION FOR ADMISSIONS, RECRUITMENT & REGISTRAR'S OFFICE

To be completed by the Faculty

Slot Course: ☐ Yes ☐ No

Thesis Component: ☐ Yes ☐ No

To be completed by ARR

CIP Code

For Continuing Education Use

CE Admin. Unit :

Flat Rate: Cdn Flat Rate: ☐ Yes ☐ N/A

Charles Gale	Charles Gale				

26. Approvals:

Routing Sequence	Peter Grutter, 398-2567, grutter@physics.mcgill.ca					
Name						
Signature						
Date						
Departmental Contact Person (name/phone/email)						