Applied Physics Application:
Molecular Physics

Student name:_____   Year of Grad Program Entry:_____

Date:_____

Please indicate all of your planned courses for this track:

1) Comps 1 Required Courses (12 credits):
   Required:
   - ☐ PHYS 5250 - Quantum Mechanics 1
   - ☐ PHYS 5260 - Quantum Mechanics 2
   - ☐ PHYS 7310 - Electromagnetic Theory 1

   One more from this list: *(More can be taken as electives.)*
   - ☐ PHYS 7230 - Statistical Mechanics
   - ☐ PHYS 7320 - Electromagnetic Theory 2

2) Other Required Courses (6 credits):
   Two from this list *(More can be taken as electives.)*
   - ☐ PHYS 5160 - Fundamentals of Optics and Lasers
   - ☐ PHYS 7240 - Advanced Statistical Mechanics
   - ☐ PHYS 7440 - Theory of Solid State 1
   - ☐ PHYS 7550 - Atomic and Molecular Spectra
   - ☐ PHYS 7560 - Quantum Optics
   - ☐ PHYS 7650 - Nonlinear and Nano-Optics
   - ☐ PHYS 7660 - Ultrafast Optics

3) Elective courses to bring total to 30 credits: *Note 18/30 of your credit hours must be in PHYS courses and at least 6/30 must be outside of PHYS. 3 credit hours can be outside of this list.*
   Any courses in the above lists   List here:_____

   APPM 5600 - Numerical Analysis 1
   APPM 5610 - Numerical Analysis 2   ECEN 5156 - Physical Optics
   CHEM 5501 - Advanced Topics in Physical   ECEN 5696 - Fourier Optics
   Chemistry   ECEN 6006 - Numerical Methods in Photonics
   CHEM 5581 - Introduction to Quantum   PHYS 5070 - Computational Physics
   Chemistry   PHYS 5606 - Optics Laboratory (same as ECEN 5606)
   CHEM 5541 - Chemical Dynamics   PHYS 7240 - Advanced Statistical Mechanics
   - ☐ CHEM 5561 - Advances in Molecular
   Biophysics
   - ☐ CHEM 5591 - Advanced Molecular
   Spectroscopy

   3 credit hours can be outside of this list. List here:_____

Any changes to the above requirements are to be approved by the Track Coordinator and Physics Assoc. Chair for Graduate Studies on the next page.

Are there any exceptions to track requirements?   Yes   No

Exceptions to the track requirements:

Signatures are **only** required if exceptions are listed above.

Track Coordinator Name: _____

Signature_____   Date: _____

Grad Chair Name: _____

Signature_____   Date: _____

Please submit the completed form to the **Graduate Program Assistant**.