



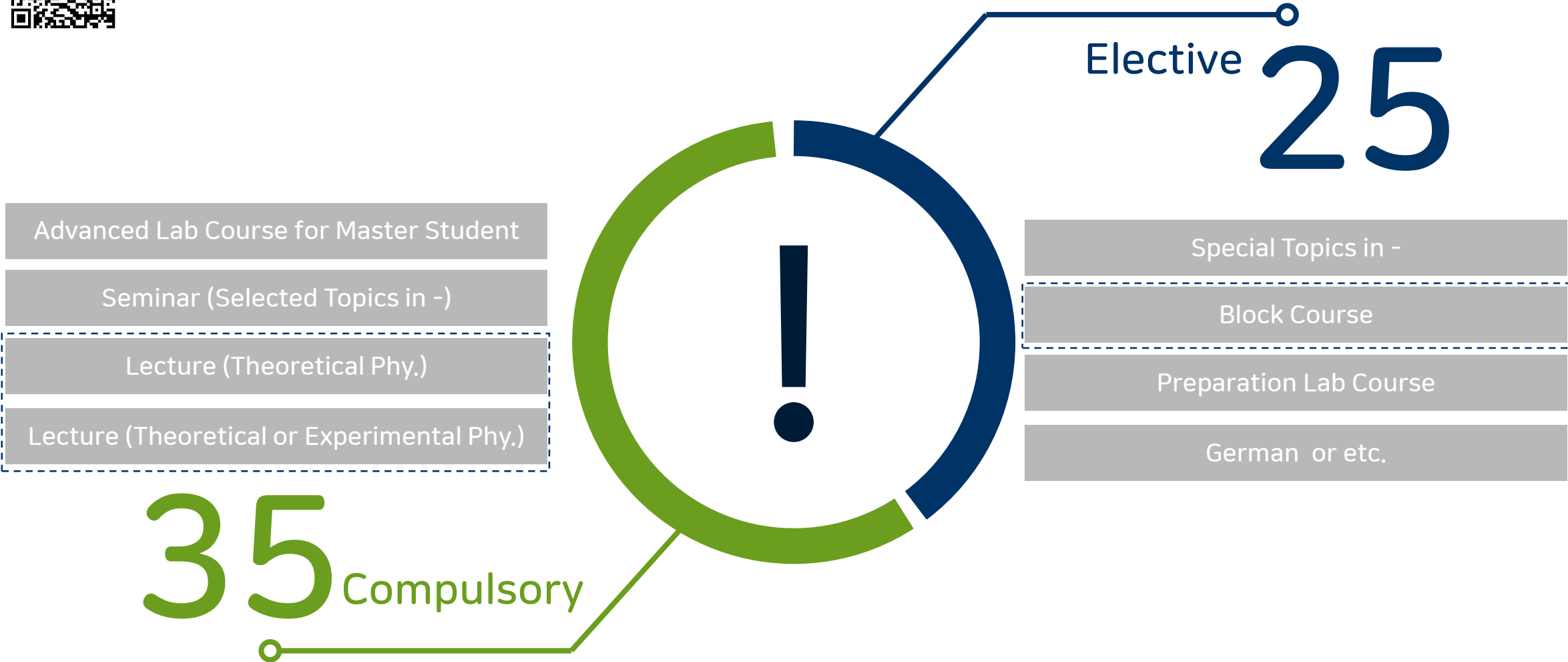
For Master student in Physics Department

# Mentoring Meet-up

Tips for Module Registration & Lab Course



Study regulations for the Master's Programme in Physics  
in the Department of Physics at the Freie Universität Berlin  
since 2013



Lecture (Theoretical Phy.)

Lecture (Experimental Phy.)

**Advanced** Quantum Mechanics

**Advanced** Solid State Physics

**Advanced** Statistical Physics

Statistical Physics and Thermodynamics

**Advanced** Atomic and Molecular Physics

Quantum Field Theory and Many-Body Physics

**Advanced** Biophysics

## Lehrveranstaltungsangebot zum Modul "Selected Topics in Physics\_2"

	Lehrveranstaltungsangebot zum Modul	LV-Nr.	SMA-Nr.	LV-Form	Dozent/in	Termin	max. TN	TN		
<b>Selected Topics in Physics_2 (0352bA1.3.1)</b>										
<input type="checkbox"/>	Strongest light-matter coupling	20102811	0352b_250		Reich	MO 10:00-12:00		5		
<input type="checkbox"/>	Current topics in nanophysics	20103911	0352b_2260		Bolotin	TU 14:00-16:00		9		
<input type="checkbox"/>	Molecular Electronics	20108111	0352b_7		Franke	MO 10:00-12:00		7		
<input checked="" type="checkbox"/>	Computer Tutorial in Markov Modeling	20112011	0352b_370		Noe	MO TU WE TH FR 10:00-16:00	15	15		
<input type="checkbox"/>	Artificial Photosynthesis	20112811	0352b_270		Dau	siehe eVV		6		
<input type="checkbox"/>	Physics and Society	20119611	0352b_230		Erlemann	WE 14:00-16:00		14		
<input type="checkbox"/>	Adv. Numer. Meth. for Complex Systems	20122211	0352b_2230		Netz	TU 14:00-16:00		16		

## Lehrveranstaltungsangebot zum Modul "Modern Methods in Experimental Physics A"

	Lehrveranstaltungsangebot zum Modul	LV-Nr.	SMA-Nr.	LV-Form	Dozent/in	Termin	max. TN	TN		
<b>(V) Modern Methods in Experimental Physi (0352bA3.27.1)</b>										
<input type="checkbox"/>	Ultrafast Laserphysics	20103501	0352b_2160		Vrakking	FR 10:00-12:00		4		
<input checked="" type="checkbox"/>	Molecular Bioenergetics	20103801	0352b_340		Dau	MO TU WE TH FR 09:00-13:00		4		
<input type="checkbox"/>	Special Topics in Molecular Biophysics	20105701	0352b_2190		Haumann	WE 12:00-14:00		1		
<input checked="" type="checkbox"/>	NMR spectroscopy and imaging	20112301	0352b_590		Schröder	MO TU WE TH FR		9		
<input type="checkbox"/>	Vacuum physics and metrology	20118601	0352b_310		Bernien	FR 10:00-12:00		6		
<input type="checkbox"/>	Photobiophysics and Photosynthesis	20120301	0352b_405		Zaharieva	WE 10:00-12:00		3		
<b>(Ü) Modern Methods in Experimental Physi (0352bA3.27.2)</b>										
<input type="checkbox"/>	Ultrafast Laserphysics	20103502	0352b_2175		Vrakking	FR 08:00-10:00		4		
<input checked="" type="checkbox"/>	Molecular Bioenergetics	20103802	0352b_355		Dau	MO TU WE TH FR 14:00-16:00		4		
<input type="checkbox"/>	Special Topics in Molecular Biophysics	20105702	0352b_2210		Haumann	WE 14:00-16:00		1		
<input checked="" type="checkbox"/>	NMR spectroscopy and imaging	20112302	0352b_610		Schröder	MO TU WE TH FR 12:30-16:00		9		
<input type="checkbox"/>	Vacuum physics and metrology	20118602	0352b_325		Bernien	FR 09:00-10:00		6		
<input type="checkbox"/>	Photobiophysics and Photosynthesis	20120302	0352b_410		Zaharieva	FR 12:00-14:00		3		

When?



25CP

Advanced Lab Course for Master Student

10CP

Lecture (Theoretical Phy.)

10CP

Etc.

5CP

Advanced Lab Course for Master Student

Preparation Lab Course

8 in Master Lab

2 in Basic Lab + 3 in Intermediate Lab  
4 in Intermediate Lab

Seminar & Presentation

No Seminar or Presentation  
Oral Exam. (20min.)

10 CP

5 CP

Compulsory

Elective



Preparatory Course to the  
Advanced Master Laboratory

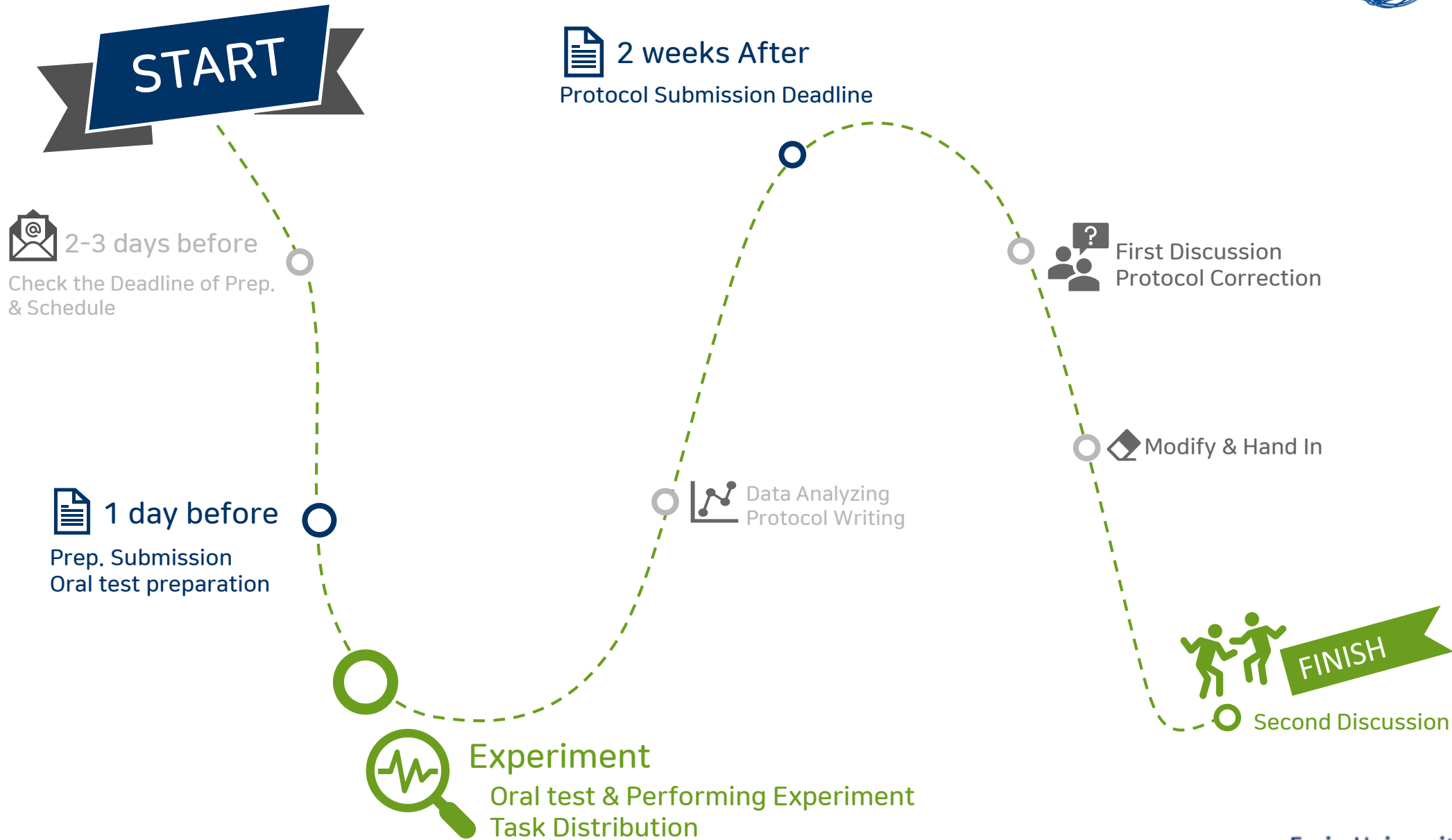
## Self-Check List for Successful Lab Course

1. I have experiences performing experiments myself or took a lecture similar to the lab course.
2. I have written any scientific papers or reports more than 5 pages including figures and reference.
3. I know the meaning of 'trend line', 'fitting curve', and 'pick searching' and how to get it from the data.
4. I can find cause of errors in the experiment and I know the relationships between average and standard deviation.
5. I can analyze data by using computer programming (C++, java, python, ... etc), or other analyzing software(origin, matlab, mathematica, ... etc.)
6. I know how to get information from books or papers and how to cite them on the report.
7. I know how to add any mathematical formula on the computer word processor.
8. I'm using a web platform to share documents such as google docs, or overleaf or I know how to use them.
9. I can explain the 'laser operation principle', 'electron energy level(state)', and 'electron spin'.
10. I have basic knowledge in Optics, Electromagnetics, Quantum Mechanics, and Solid State Physics.

9-10 : You are ready to take the Advanced lab course for Master student.

6-8: It'll be not easy, but you can pass it when you meet nice partner.

0-5: Taking the "Preparation lab course" will be the best choice.

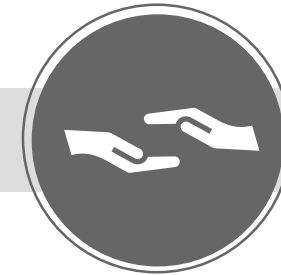






Make sure deadline & Manage your own schedule

Keep in touch with your partner(s) & tutor



Equally distribute your task (prep & protocol)