

## ISOS Course

## How to design a successful experiment?

Dr. Mark Lenz, GEOMAR 28 June 2016 | 14:00 - 17:00 h

This short course is tailored for PhD candidates who are in an early phase of their project. It focuses on fundamental concepts in designing experiments for the life sciences and by this it aims at enabling early career researchers to run successful and relevant experiments. Furthermore, it will elucidate the intimate connection between experimental design and statistical data analysis. The following topics will be covered:

| What to test? Models and hypotheses

| What to measure? Variables in experiments

I How to measure? Data quality levels and sampling procedures

| What to analyze? Populations, samples and replicates

I ...and if yes, how many? Test power and estimating an appropriate sample size

| What to avoid? Pseudoreplication and biased sampling

Venue: tba

ISOS PhDs have priority in our courses.

Child care can be provided if we have two weeks advance notice.











