

The Culture of Research and Scholarship in Mathematics: Teaching Loads in Mathematics

While often grouped with the physical sciences, mathematics differs from sciences in the ways in which research and scholarship are conducted, and in the ways in which research and teaching missions are combined. These differences manifest themselves in the typical classroom teaching loads encountered in the different disciplines. Teaching loads also vary within the discipline of mathematics, depending on the mission of the department and the institution.

In May 2011, the AMS conducted a survey of Group I¹ mathematics department chairs regarding teaching loads. Responses were received from 41 of the 48 departments that comprise Group I. The responses showed remarkable consistency. For departments on the semester system (31 of the 41 departments), the average teaching load for research-active faculty is 3 courses per year representing 4.5 contact hours of instruction per week. Only one of these departments reported a higher than average teaching load (3.4 courses per year) and only one reported a lower than average teaching load (2 courses per year). The teaching load for research active faculty in departments on the quarter system ranges from 3 courses per year to 4.5 courses per year, with an average of 3.9 courses per year representing 4.2 contact hours of instruction per week.

Group II² and Group III³ mathematics departments were not included in the AMS survey. However, according to the 2005 Delaware Study of Instructional Productivity, the average teaching load for tenure/tenure track faculty in mathematics departments with a doctoral program is 2 courses per term. The 2005 Delaware Study also indicated that mathematics departments whose highest degree is a masters degree had an average teaching load of 2.8 courses per term; and those whose highest degree is a bachelors degree had an average teaching load of 3.4 courses per term.

Proper balance between research and teaching is essential for maintaining research productivity and teaching effectiveness.

¹Mathematics departments ranked between 3.00 and 5.00 for scholarly quality of faculty by the 1995 NRC Study; see <http://www.ams.org/profession/data/annual-survey/group i>.

²Mathematics departments ranked between 2.00 and 2.99 by the 1995 NRC Study; see <http://www.ams.org/profession/data/annual-survey/group ii>.

³Mathematics departments ranked below 2.00 or not ranked by the 1995 NRC Study; see <http://www.ams.org/profession/data/annual-survey/group iii>.