

Making Scientists

For many college students, studying the hard sciences seems out of the question. Students and professors alike collude in the prejudice that physics and molecular biology, mathematics and engineering are elite disciplines restricted to a small number with innate talent. Gregory Light and Marina Micari reject this bias, arguing, based on their own transformative experiences, that environment is just as critical to academic success in the sciences as individual ability. *Making Scientists* lays the groundwork for a new paradigm of how scientific subjects can be taught at the college level, and how we can better cultivate scientists, engineers, and other STEM professionals. The authors invite us into Northwestern University's Gateway Science Workshop, where the seminar room is infused with a sense of discovery usually confined to the research lab. Conventional science instruction demands memorization of facts and formulas but provides scant opportunity for critical reflection and experimental conversation. Light and Micari stress conceptual engagement with ideas, practical problem-solving, peer mentoring, and—perhaps most important—initiation into a culture of cooperation, where students are encouraged to channel their energy into collaborative learning rather than competition with classmates. They illustrate the tangible benefits of treating students as apprentices—talented young people taking on the mental habits, perspectives, and wisdom of the scientific community, while contributing directly to its development. Rich in concrete advice and innovative thinking, *Making Scientists* is an invaluable guide for all who care about the future of science and technology.



26,00 €
24,30 € (zzgl. MwSt.)

Nicht mehr lieferbar

Artikelnummer: 9780674052925
Medium: Buch
ISBN: 978-0-674-05292-5
Verlag: HARVARD UNIVERSITY PRESS
Erscheinungstermin: 08.03.2013
Sprache(n): Englisch
Auflage: Erscheinungsjahr 2013
Produktform: Gebunden
Gewicht: 468 g
Seiten: 304
Format (B x H): 149 x 212 mm

