

# Cambridge Elements<sup>≡</sup>

Elements of Paleontology

## FLIPPING THE PALEONTOLOGY CLASSROOM

*Benefits, Challenges, and Strategies*

Matthew E. Clapham  
*University of California Santa Cruz*



Cambridge University Press  
978-1-108-71784-7 — Flipping the Paleontology Classroom  
Matthew E. Clapham  
Frontmatter  
[More Information](#)

---

## CAMBRIDGE UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,  
New Delhi – 110025, India

79 Anson Road, #06–04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of  
education, learning, and research at the highest international levels of excellence.

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781108717847](http://www.cambridge.org/9781108717847)

DOI: 10.1017/9781108681421

© The Paleontological Society 2018

This publication is in copyright. Subject to statutory exception  
and to the provisions of relevant collective licensing agreements,  
no reproduction of any part may take place without the written  
permission of Cambridge University Press.

First published 2018

*A catalogue record for this publication is available from the British Library.*

ISBN 978-1-108-71784-7 Paperback

ISSN 2517-780X (online)

ISSN 2517-7796 (print)

Cambridge University Press has no responsibility for the persistence or accuracy of  
URLs for external or third-party internet websites referred to in this publication  
and does not guarantee that any content on such websites is, or will remain,  
accurate or appropriate.

Cambridge University Press  
978-1-108-71784-7 — Flipping the Paleontology Classroom  
Matthew E. Clapham  
Frontmatter  
[More Information](#)

# Flipping the Paleontology Classroom

## Benefits, Challenges, and Strategies

Elements of Paleontology

DOI: 10.1017/9781108681421  
First published online: October 2018

---

Matthew E. Clapham  
*University of California Santa Cruz*

**Abstract:** Lecturing has been a staple of university pedagogy, but a shift is ongoing because of evidence that active engagement with content helps strengthen learning and build more advanced skills. The flipped classroom, which delivers content to students outside of the class meeting, is one approach to maximize time for active learning. The fundamental benefit of a flipped class is that students learn more, but ensuring student preparation and engagement can be challenging. Evaluation policies can provide incentives to guide student effort. Flipping a class requires an initial time commitment, but the workload associated with evaluating student work during the course can be mitigated. The personal interactions from active learning are extremely rewarding for students and instructors, especially when class sizes are small and suitable room layouts are available. Overall, flipping a course doesn't require special training, just a willingness to experiment, reflect, and adjust.

**Keywords:** Geoscience education; active learning; video lectures; student assessment

© The Paleontological Society 2018

ISBNs: 9781108717847 (PB), 9781108681421 (OC)  
ISSNs: 2517-780X (online), 2517-7796 (print)

Contents

|  |    |
|--|----|
| 1 Introduction   | 1  |
| 2 Implementing the Flipped Classroom                   | 2  |
| 3 Benefit: Students Learn More                         | 3  |
| 4 Benefit: In-Class Work Can Be Made Challenging       | 5  |
| 5 Benefit: Students Work More                          | 9  |
| 6 Benefit: Greater Interaction with and Among Students | 12 |
| 7 Conclusions  | 14 |
| References   | 16 |