

## **State of Florida Instructional Materials Adoption Publisher Questionnaire (Form IM8)**

BID #: 775  
SUBMISSION TITLE: Foundations of Astronomy  
GRADE LEVEL: 09-12  
COURSE TITLE: Astronomy Solar/Galactic  
COURSE CODE #: 2001350  
ISBN #: 9798214066691 Print SE / 9798214093024 Ebook SE  
PUBLISHER: Cengage Learning, Inc.  
AUTHOR: Seeds/Backman  
COPYRIGHT: 2024

**AUTHORS & CREDENTIALS: LIST FULL NAME OF AUTHOR(S), WITH MAJOR OR SENIOR AUTHOR LISTED FIRST. BRIEFLY PROVIDE CREDENTIALS FOR EACH AUTHOR.**

### **Michael A. Seeds**

Mike Seeds was a professor of physics and astronomy at Franklin and Marshall College in Lancaster, Pennsylvania, from 1970 until his retirement in 2001. In 1989 he received F&M College's Lindback Award for Distinguished Teaching. Mike's love for the history of astronomy led him to create upper-level courses on archeoastronomy and on the Copernican Revolution ("Changing Concepts of the Universe"). His research interests focused on variable stars and automation of astronomical telescopes. Mike is coauthor with Dana Backman of Horizons: Exploring the Universe, 12th edition (2012); Universe: Solar System, Stars, and Galaxies, 7th edition (2012); Stars and Galaxies, 8th edition (2013); The Solar System, 8th edition (2013); and ASTRO, 2nd edition (2013), all published by Cengage. He was senior consultant for creation of the 20-episodetelecourse accompanying his book Horizons: Exploring the Universe.

### **Dana Backman**

Dana Backman taught in the physics and astronomy department at Franklin and Marshall College in Lancaster, Pennsylvania, from 1991 until 2003. He invented and taught a course titled "Life in the Universe" in F&M's interdisciplinary Foundations program. Dana now teaches introductory Solar System astronomy at Santa Clara University and introductory astronomy, astrobiology, and cosmology courses in Stanford University's Continuing Studies Program. His research interests focus on infrared observations of planet formation, models of debris disks around nearby stars, and evolution of the solar system's Kuiper belt. Dana is employed by the SETI Institute in Mountain View, California, as director of education and public outreach for SOFIA (the Stratospheric Observatory for Infrared Astronomy) at NASA's Ames Research Center. Dana is coauthor with Mike Seeds of Horizons: Exploring the Universe, 14th edition (2018); Universe: Solar Systems, Stars, and Galaxies, 7th edition (2012); Stars and Galaxies, 8th edition (2013); The Solar System, 8th edition (2013); and ASTRO, 2nd edition (2013), all published by Cengage.

**STUDENTS: DESCRIBE THE TYPE(S) OF STUDENTS FOR WHICH THIS SUBMISSION IS INTENDED.**

Foundations of Astronomy is intended for Florida High School Students.

**1.LIST THE FLORIDA DISTRICTS IN WHICH THIS PROGRAM HAS BEEN PILOTED INTHE LAST EIGHTEEN MONTHS.**

National Geographic Foundations of Astronomy Florida Edition is a new program for the Florida Social Studies adoption and has not yet been piloted in Florida.

## **2.HOW ARE YOUR DIGITAL MATERIALS SEARCHABLE BY FLORIDA'S ACADEMIC STANDARDS (SECTION 1006.33(1)(e), FLORIDA STATUTES)?**

In the WebAssign digital platform, standards are searchable.

### **3.IDENTIFY AND DESCRIBE THE COMPONENTS OF THE MAJOR TOOL. The Major Tool is comprised of the items necessary to meet the standards and requirements of the category for which it is designed and submitted. As part of this section, include a description of the educational approach of the submission.**

**Educational Approach: (The information provided here will be used in the instructional materials catalog in the case of adoption of the program. Please limit your response to 500 words or less.)**

Fascinating, engaging and extremely visual, Seeds/Backman's FOUNDATIONS OF ASTRONOMY, 14TH STUDENT EDITION, emphasizes scientific processes throughout as it guides students to answer two fundamental questions: What are we? And how do we know? In addition to exploring the newest developments and latest discoveries in the exciting field of astronomy, authors Seeds and Backman discuss the interplay between evidence and hypothesis, providing both factual information and a conceptual framework for understanding the logic of science. The text is available with WebAssign, the powerful digital solution that enriches the teaching and learning experience. It includes Virtual Astronomy Labs 3.0 -- a set of 20 interactive activities that combines analysis of real astronomical data with robust simulations, providing a true online laboratory experience for your introductory astronomy course.

#### **Major Tool - Student Components Describe each of the components, including a format description.**

The major tool for students is comprised of a hard cover print student book, an eBook, and WebAssign digital platform.

##### **Print Student Book and eBook**

The dynamic, visually powerful print text and eBook has been carefully crafted to ensure solid scientific content and an approach that delivers precisely what is needed for high school courses.

##### **WebAssign Digital Platform**

Our online learning platforms are designed to achieve better results. By increasing student engagement, improving teacher productivity and using assessment to enable differentiation, we support growth. With WebAssign for Seeds/Backman's Foundations of Astronomy, 14th, Student Edition, 1-year and 6-year Instant Access, our online solution goes further with content from the most trusted sources that not only aligns to your standards and certifications but also creates a sense of belonging and inclusion.

#### **Major Tool - Teacher Components Describe each of the components, including a format description.**

WebAssign Format: Online learning and homework platform with video, audio, support resources, and advanced analytics to detail performance.

WebAssign for College Algebra gives students the opportunity to succeed with rich tutorial content, immediate feedback, multimedia, and an interactive eBook. Assignments are customizable by the teacher to provide a unique experience with various question types. WebAssign's built-in study feature, My Class Insights, was created just for students. My Class Insights is available on the student homepage after logging into WebAssign. It shows performance across course topics so students can quickly identify which concepts were aced and which areas may need more time.

**4. IDENTIFY AND DESCRIBE THE ANCILLARY MATERIALS. Briefly describe the ancillary materials and their relationship to the major tool.**

**Ancillary Materials - Student Components Describe each of the components, including a format description.**

Our online learning platforms are designed to achieve better results. By increasing student engagement, improving teacher productivity and using assessment to enable differentiation, we support growth. With WebAssign for Foundations of Astronomy, 14th, Student Edition, 1-year and 6-year Instant Access, our online solution goes further with content from the most trusted sources that not only aligns to your standards and certifications but also creates a sense of belonging and inclusion.

**Ancillary Materials - Teacher Components Describe each of the components, including a format description.**

The Teacher Components are all found online in the **Teacher Companion** site. The Teacher Companion Site will include the following tools and resources for the teacher:

- The MindTap Educator's Guide - A useful teacher companion to learn about all the features and use the online learning platform
- Instructor's Manual - Overview and guide to help teaching and all answers and suggested answers to exercises in the program
- Chapter Quizzes and Test Bank - Assignable chapter assessments, both formative and summative
- Cognero Test Generator - A rich assessment resource for formative and summative assessments that is fully customizable and printable
- PowerPoints - Useful presentation decks to help with class instruction
- Correlations to national standards

**5. IDENTIFY WHICH INDUSTRY STANDARD PROTOCOLS ARE UTILIZED FOR INTEROPERABILITY?**

Cengage Learning is certified under the IMS Global Consortium.

**6. HOW MUCH INSTRUCTIONAL TIME IS NEEDED FOR THE SUCCESSFUL IMPLEMENTATION OF THIS PROGRAM? Identify and explain the suggested instructional time for this submission. If a series, state the suggested time for each level. The goal is to determine whether the amount of content is suitable to the length of the course for which it is submitted.**

This program is aligned to either a half-year or a full-year course. Lessons, activities, and review questions are designed to be flexible and to provide the teacher with the opportunity to extend or shorten the time spent on lessons as needed.

**7. WHAT PROFESSIONAL DEVELOPMENT IS AVAILABLE? Describe the ongoing learning opportunities available to teachers and other education personnel that will be delivered through their schools and districts as well as the training/in-service available directly from the publisher for successful implementation of the program. Also provide details of the type of training/in-service available and how it may be obtained. (The information provided here will be used in the instructional materials catalog in the case of adoption of the program.)**

**Provide a variety of options for professional development for the life of the adoption:**

- *Initial Program Orientation and Digital Platform Training Workshops:* Training supports all teachers in their efforts to become thoroughly familiar with the adopted program, its components including

implementation of its digital platform, and the variety of ways it can be used to meet diverse student needs.

- **Virtual Teacher Support:** NGL provides a variety of support online, which may include on-demand modules, teacher companion websites, and frequently asked questions to support program implementation on an ongoing basis.
- **National Geographic Learning Sales Consultant and Customer Success Team:** Access to your local sales representative and Customer Success Consultant for program assistance before, during and after an adoption.

**- Face to face, online, live webinars and or recorded tutorials for all staff including coaches, assistants, teachers, administration, and related service providers:**

- Virtual Digital Platform Training sessions are 30, 60, or 90 minutes.
- Face to face training sessions are half-days (2-4 hours). Dates and times to be coordinated between district and National Geographic Learning Customer Success Consultant
- Administrator Overview is a training on the product and platform being implemented. This can also be a "train the trainer" session.
- NGL provides a variety of support online, which may include on-demand modules, teacher companion websites, and frequently asked questions to support program implementation on an ongoing basis, as also noted above.

**- Training and support documents available in electronic format:**

All training and support documents are available in electronic format.

**- Sustainable professional development and training that can be effectively administered in future years to new staff:**

Comprehensive product training is available for the life of the adoption for new staff utilization.

Trainer of trainer model:

- The trainer of trainer model training sessions are half-days (2-4 hours). Dates and times to be coordinated between district and National Geographic Learning Customer Success Consultant

Training specifically for administration in order to enable leadership to support their staff.

- Administrator Overview is a training on the product and platform being implemented. This can also be a "train the trainer" session.

Training for non-teaching staff and administration in how to access and use student data.

- Training related to accessing and using student data is part of the comprehensive product offerings and available for non-teaching staff and administration, as well.

Training for all users on how to access any and all resources necessary to support students (teacher of record, resource teacher, related services provider, coaches, administration, etc.)

- Training supports all teachers, coaches and administrators in their efforts to become thoroughly familiar with the adopted program, its components including implementation of its digital platform, and the variety of ways it can be used to meet diverse student needs.

**8. WHAT HARDWARE/EQUIPMENT IS REQUIRED? List and describe the hardware/equipment needed to implement the submission in the classroom. REMEMBER: Florida law does not allow hardware/equipment to be included on the bid; however, schools and districts must be made aware of the hardware/equipment needed to fully implement this program.**

Please find a comprehensive list of system/hardware requirements here:

[http://www.webassign.net/manual/admin/?q=c\\_a\\_system\\_requirements.htm](http://www.webassign.net/manual/admin/?q=c_a_system_requirements.htm)

<https://support.vitalsource.com/hc/en-us/categories/200132467-Bookshelf-for-Mac-and-PC>

**9. WHAT LICENSING POLICIES AND/OR AGREEMENTS APPLY? If software is being submitted, please attach a copy of the company's licensing policies and/or agreements.**

No software is being submitted, rather online licenses to WebAssign are a part of the submission. Licences are per user student.

Terms of use can also be found here:

<https://www.webassign.com/corporate/terms-of-use/>

**10. WHAT STATES HAVE ADOPTED THE SUBMISSION? List any states in which this submission is currently adopted.**

*National Geographic Foundations of Astronomy Florida Edition* is new for the Florida Social Studies adoption and not been adopted in other states.

**11. WHAT OPEN EDUCATIONAL RESOURCES RELATED TO THIS BID DO YOU MAKE AVAILABLE(S)? List and describe each of the components, including a format description. (Open Educational Resources (OER) are high-quality, openly licensed, online educational materials that offer an extraordinary opportunity for people everywhere to share, use and reuse knowledge.)**

Open Educational Resources (OER) are not included in the National Geographic Learning/Cengage bid.

**12. ALTHOUGH NOT CALLED FOR IN THE STATE ADOPTION, DO YOU HAVE ADVANCED PLACEMENT (AP) OR ACCELERATED PROGRAM INSTRUCTIONAL MATERIALS AVAILABLE FOR THE COURSE(S) BID FOR ADOPTION?**

n/a

**13. WHAT, IF ANY, FOREIGN LANGUAGE TRANSLATIONS DO YOU HAVE AVAILABLE?**

*National Geographic Foundations of Astronomy Florida Edition* is available in English only.

**14. DO YOU PROVIDE ACCESS POINT SCAFFOLDING OR AN ACCESS POINT CORRELATION UPON REQUEST?**

Yes, National Geographic Learning may provide this upon request.

**15. ESSA LEVELS OF EVIDENCE: To be considered an evidence-based program (or practice), it is required to have evidence to show that the program is in fact effective at producing results and improving outcomes in reading when implemented. Identification of evidence level alignment, Levels 1-4 (as outlined in the specifications), for the entirety of the program, part of the program, or individual practices within the program is required. Please explain how your product meets these requirements.**

Materials do incorporate evidence-based approaches, strategies, and resources so that all learners can access grade-level content with specific supports for English language learners.