**Department of Computer Science**

**Undergraduate Curriculum Committee**

**New Course Textbook Request Form**

Faculty member(s) proposing change: Sharanya Jayaraman

Date of this request: 11/15/2023

Other Faculty involved in teaching this course or who have particular interest in its contents: Melina Myers

Course Information (prefix, number, title): COP 33663: Introduction to Programming in C++, COP 3014: Programming I

Current Approved Textbook Information (1)

Title: Starting Out with C++: Control Structures through Objects

Author: Tony Gaddis

Publisher: Pearson

Date Published: 2017

URL:

ISBN#: 978-0134498379

Current Approved Textbook Information (2) if any; type *none* for title if there is no 2nd book

Title: Programming in C++

Author: Frank Vahisd and Roman Lysecky

Publisher: Zybooks

Date Published:

URL: https://www.zybooks.com/catalog/programming-c-plus-plus/

ISBN#:

Proposed new textbook information

Title: A Foundation to Programming with C++ (TH Bundle)

Author: Sharanya Jayaraman

Publisher: Top Hat Monocle Inc

Date Published: Nov 2023

URL: https://app.tophat.com/e/341993

ISBN#: 9781778772962

Motivation:

Please discuss the reasons for proposing the new textbook. Describe what

aspects of the current book(s) you find unsuitable. Describe what aspects of

the new book will improve the course, comparing the current textbook(s) with

the proposed text.

I am proposing the adoption of a new C++ textbook (A Foundation to Programming with C++ (TH Bundle) delivered digitally through the Top Hat platform) for our introductory programming courses. The purpose of this proposal is to provide an effective, comprehensive, and student-centered resource that aligns with the needs of FSU’s beginner-level programming students. This textbook not only emphasizes C++ programming skills but also encompasses problem-solving techniques, software engineering conventions, and additional chapters on UNIX, providing a holistic approach to programming education.

**Alignment with Student Needs:**

FSU’s introductory programming courses – COP 3014 and COP 3363 cater to students who are absolute beginners in programming. Current textbooks (Pearson, Zybooks, etc.) require some rudimentary knowledge to be effective. This new textbook has been carefully designed to address the unique challenges faced by these students, ensuring a smooth transition into the world of programming. By focusing not only on C++ but also on problem-solving strategies and software engineering principles, the textbook equips students with a well-rounded understanding of programming concepts that extends beyond coding syntax.

**Consolidation of Resources:**

One of the distinct advantages of the proposed textbook is its consolidation of content. Instead of requiring students to purchase multiple books for C++ and UNIX, this single textbook covers all these essential topics. This approach not only simplifies the resource acquisition process for students but also streamlines the curriculum, allowing for a more cohesive learning experience.

**Addressing the Decline in Traditional Textbook Usage:**

In recent years, we have observed a decline in the use of our current textbook. Many students are turning to YouTube and other online sources for programming guidance. However, the reliability and accuracy of such sources vary greatly, and their content often lacks academic rigor and verification. The proposed textbook includes video lessons and tailored examples that are designed to cater specifically to our students. By integrating multimedia resources, we can provide students with authoritative and trusted learning materials that are aligned with our curriculum.

**Enhanced Learning Experience:**

The proposed textbook doesn't merely present programming concepts; it fosters an interactive and engaging learning experience. The inclusion of video lessons offers students an alternative mode of learning that complements traditional text-based instruction. The tailored examples provided in the textbook directly address the challenges students commonly encounter, enhancing their comprehension and mastery of the subject matter.

In conclusion, the adoption of this new C++ textbook is a strategic step toward meeting the evolving needs of our beginner-level programming students. Its comprehensive approach, consolidation of resources, integration of multimedia elements, and focus on practical problem-solving and software engineering skills make it an ideal fit for our curriculum. By providing students with a reliable, authoritative, and student-centric learning resource, we can ensure their success in mastering C++ programming and related topics.

Last Update of this form: AFTyson 9/14/2020