

## **Automating Fee Collection: Enhancing the Customer Experience through Academic and Administrative Collaboration**

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## **Abstract**

*Today's higher education operating environment is unforgiving. Expectations are continually growing. Resources are growing scarcer. This is due to a myriad of reasons:*

- *Budgets are constrained – There is an intense focus from the federal government on rising tuition rates at private universities while at the same time state governments are looking at the same schools as potential new sources of tax income. When extra funds are available, they are used to focus on strategic initiatives, not back office operations. Colleges and universities are challenged to increase service level without increasing expenses.*
- *Projects compete against one another – IT shops are burdened by so many project requests by campus departments. Most requests are geared at improving services to campus constituents or streamlining business processes. Each of these requests must be appropriately prioritized and projects utilizing core competencies or have the highest visibility or impact to the campus take priority.*
- *Risks must be mitigated – News reports are constantly filled with corporations or institutions that failed to appropriately manage risk of one kind or another, whether it is physical security, appropriate internal financial controls, or data security. Each of these is paramount to maintaining an institution's reputation and therefore its ability to attract future students and donors.*

*With the backdrop of these tough realities, Wake Forest University leadership began a campus discussion around operational excellence. What can the University do to achieve more administratively with the limited resources – people, time and money – that are available? What could be moved to the cloud? What workflows could be automated? Where can paper documents be eliminated? How can information be made more transparent?*

*One opportunity identified in early 2016 under the banner of operational excellence was to completely reengineer the process of how student fees are identified and approved. The Board of Trustees approves tuition and fees through a standard, annual approval process. However, a growing and material amount of other fees were not flowing through any standard process which would allow the proper checks and balances to be in place. This led to some instances of inaccurate and untimely student billing. Creativity and ingenuity were needed and several key initiatives were launched:*

- *Student Financial Services (SFS), a unit of Financial Services, partnered with the Provost's Office and senior academic business leaders from each of the schools. The discussions led to a shared need for better governance and transparency over the fee submission process. This cross-functional collaboration between University administration and academic leadership resulted in a financial policy being sponsored by the Provost.*
- *An electronic form and approval process was developed and tested in the cloud-based Google Apps for Education, the campus standard for productivity applications.*

*Even in the short period that this solution has been available, the University has already been able to reap returns. Improved campus relationships, transparent and electronic approvals, and, most importantly, higher quality billing for our students and parents are the key benefits to date.*

## Introduction of the Organization

Offering the personal attention of a small liberal arts college, coupled with the breadth and global relevancy of a leading research institution, Wake Forest claims the distinction of being the nation's premier collegiate university. Wake Forest is consistently ranked among the top 30 universities in the nation. Our mission is to educate the whole person, graduating students who seek purpose-filled lives while building a community dedicated to serving humanity in the spirit of our motto, *Pro Humanitate*.

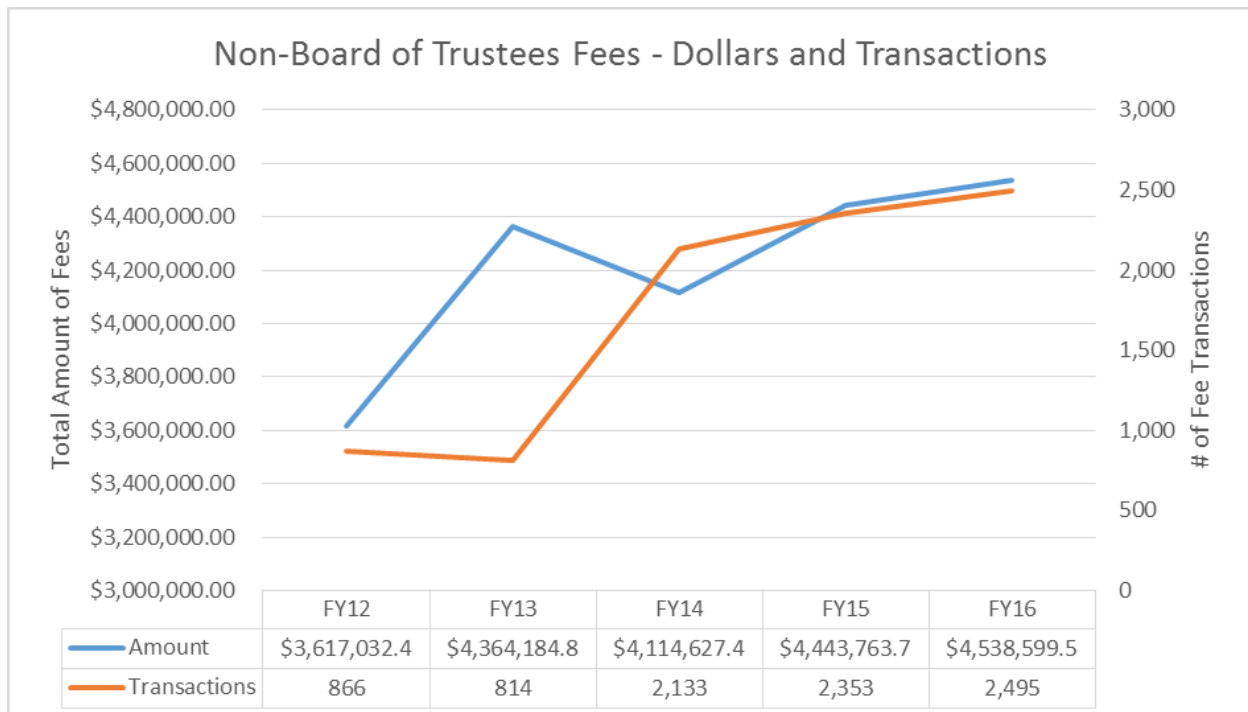
The University implemented the Banner ERP suite, including Advancement, Finance/AR, Financial Aid, HR/Payroll, and Student in 2005. A relatively quick 18-month implementation resulted in only the functionality needed to do basic processing. For nearly a decade, finance staff attention focused on building out a robust reporting environment with a custom data warehouse, replacing other legacy systems (e.g. time and attendance), and modernizing key components of the procure-to-pay cycle.

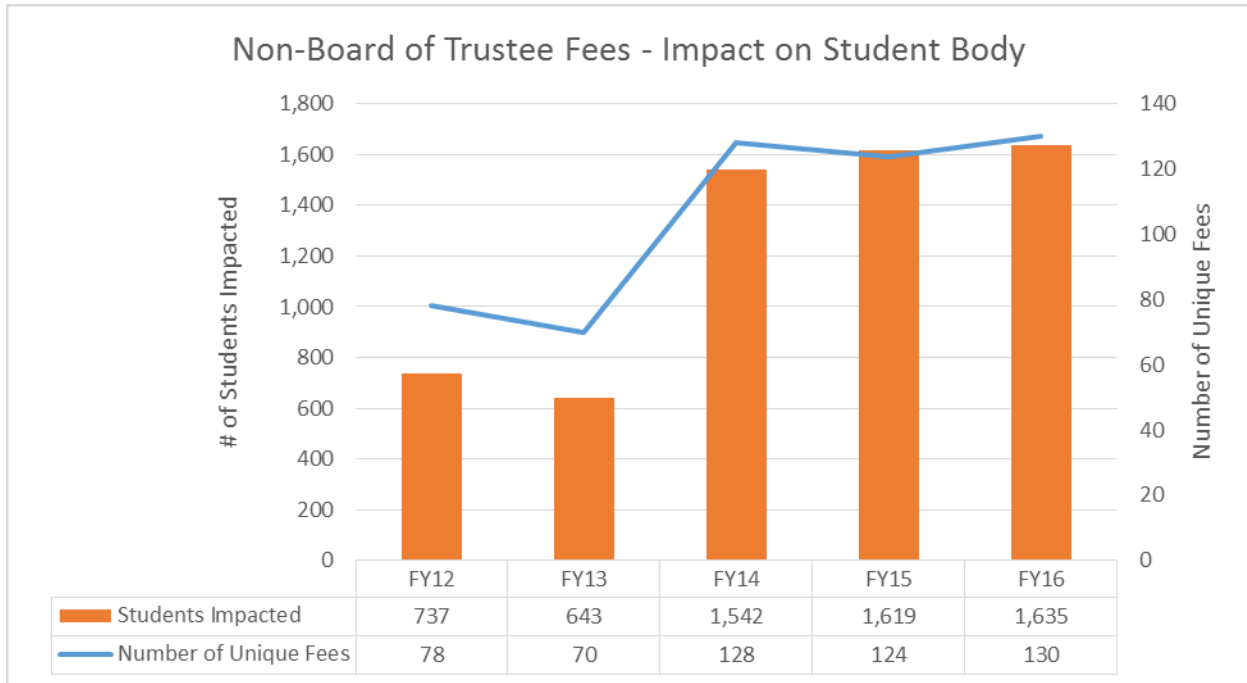
After all of this work was completely by 2014, a key and very visible unit that still needed robust attention and reengineering was SFS. While improving back-office functionality was important, improving the customer experience was critically important. Much attention was made to fully utilize all of the features within Banner AR and our cloud-based billing and payment products from Nelnet – from redesigning our billing format, redeveloping our use of priority codes and implementing auto refunding. This continued push to improve the customer experience, while simultaneously wanting to improve our internal control environment, led to the project to reengineer our fee submission and approval process.

## Statement of the Problem

The Board of Trustees approves tuition and mandatory fees for each of our schools at one of their fall or winter sessions. Over the years, there has been an ever increasing number of fees relating to specific classes, specific schools or departments, study abroad programs or domestic trips – all of which are handled outside of the Board of Trustees approval process. Going forward, SFS knew this growth, specifically in study abroad fees, would only continue, as the University recently finished its reaccreditation and a key component of that is expanding our global presence.

The growth in fees and the impact on the student body can be witnessed in several charts and data points. Over the past five fiscal years, the dollar amount of these fees has grown over \$1MM, the number of transactions has effectively tripled and the number of students impacted by these fees has doubled to almost 21% of the student body. During this time period, the student body size has stayed roughly static.





Historically there has not been a standard procedure for how the University handles fee requests outside of the formal Board of Trustees process. Faculty and staff members would reach out to SFS via phone calls, emails or paper and share the need to charge students for various reasons. This scenario created a host of issues, all counter to our goals of providing an excellent customer experience and having strong internal controls:

- *Lack of Transparency and Approvals:* The Deans of the various schools may or may not have known about these fees. If they did, there was still not a formal approval process where the Deans concurred that the charge was indeed valid.
- *Lack of Timely Billing:* Fee information was not always provided in a timely fashion, causing some students to be billed very late, sometimes even at the end of the semester.
- *Lack of Correct Billing:* Fee amounts provided were not always correct or final, leading to incorrect amounts being billed and staff time was required to make adjustments.

SFS experienced a situation in 2014 where many of these issues surfaced. In early summer, a department shared, via email, the need to increase the cost of a particular course fee from \$30 to \$50. SFS took the information and billed 196 students. In mid-October the department contacted SFS and told them that the Dean had not approved the increase and asked if SFS had obtained approval. SFS had not separately obtained approval as they assumed the email request received had already been vetted with the Dean. Since it was unapproved, SFS had to provide a \$20 refund to each of the 133 students that were still enrolled in the course. This caused frustration among all of the parties involved. Students were billed incorrectly, SFS had to perform extra work to undo the change originally requested, and the requesting department had to explain the discrepancy to all parties involved.

## **Design**

The design process was largely carried out in partnership between SFS and a group of senior academic business managers from each of the schools. Led by the Provost's Office, these business managers have regularly scheduled meetings where they collaborate with partners from across the University. The purpose of the group is to identify areas where the schools have differing business processes and seek to make them consistent. SFS was invited to participate as a collaboration partner. The group discussed the overall issues and associated risks with the current fee submission process. A common dialogue and partnership was born in the early months of 2016.

Beyond identifying risks, the group was able to clearly articulate the opportunities and positive outcomes that would result from reengineering the existing process. There were many objectives defined for the project:

1. Ensure that students are billed accurately and timely.
2. Formal approval process for all fees charged to a student's account so proper controls are maintained.
3. Ensure student's 1098T tax forms are accurate for IRS compliance.
4. Have an established Wake Forest policy and procedure for charging fees to student's accounts.
5. Properly credit departmental revenue accounts.
6. Allow students to know which classes have additional fees associated with them so the student can make informed financial decisions.

Having defined the business objectives and drivers, a back-office project team of SFS and Finance Systems, another unit in the Financial Services umbrella, formed to brainstorm about next steps and conduct due diligence.

First, it was important to understand the key data elements that Banner AR needed to perform its fee assessment processing. These elements ultimately drive the charges appearing on student accounts. The project team developed a list of potential scenarios to understand how and when the different elements were used. This information would be necessary to developing the data collection process that was to be rolled out to campus.

Second, it was critical to understand the billing process including the timing of each step and to share that information with the larger group of academic business managers. Knowing

the timing of each step would allow for a rolling calendar to be created and communicated to the schools so that they would know when their faculty and staff would need to plan internal departmental conversations.

Third, it was imperative that the solution be standardized and electronic. The new business process needed to have a well-defined form for users to input their data. In addition, a single process to share data with the senior academic business managers and Deans, document their approval and then share final, approved fees with SFS. Many solutions were discussed that could house this new form and business process, including piggybacking off our e-procurement system and developing a customer application in the University's intranet. These would require budget to be expended or IT staff time, neither of which was available. The project team decided to dig deep into the capabilities of the cloud based tools within Google Apps for Education. After learning about what was possible, it was determined that this was the best path forward since it could help meet the objectives, did not require any funds to be expended (all the technology was already available to us) and could be done with Financial Systems staff time (no IT resources were needed).

The final design consideration was that it needed to be built fast. The window was quickly closing on the billing cycle for fall 2016 and the project team wanted to use that term for pilot testing. The first fall bill would be sent to students and parents on June 1, 2016.

## **Implementation**

The implementation – from first conversation to pilot with the academic business managers – was less than six months. Conversations were frequent, development was agile

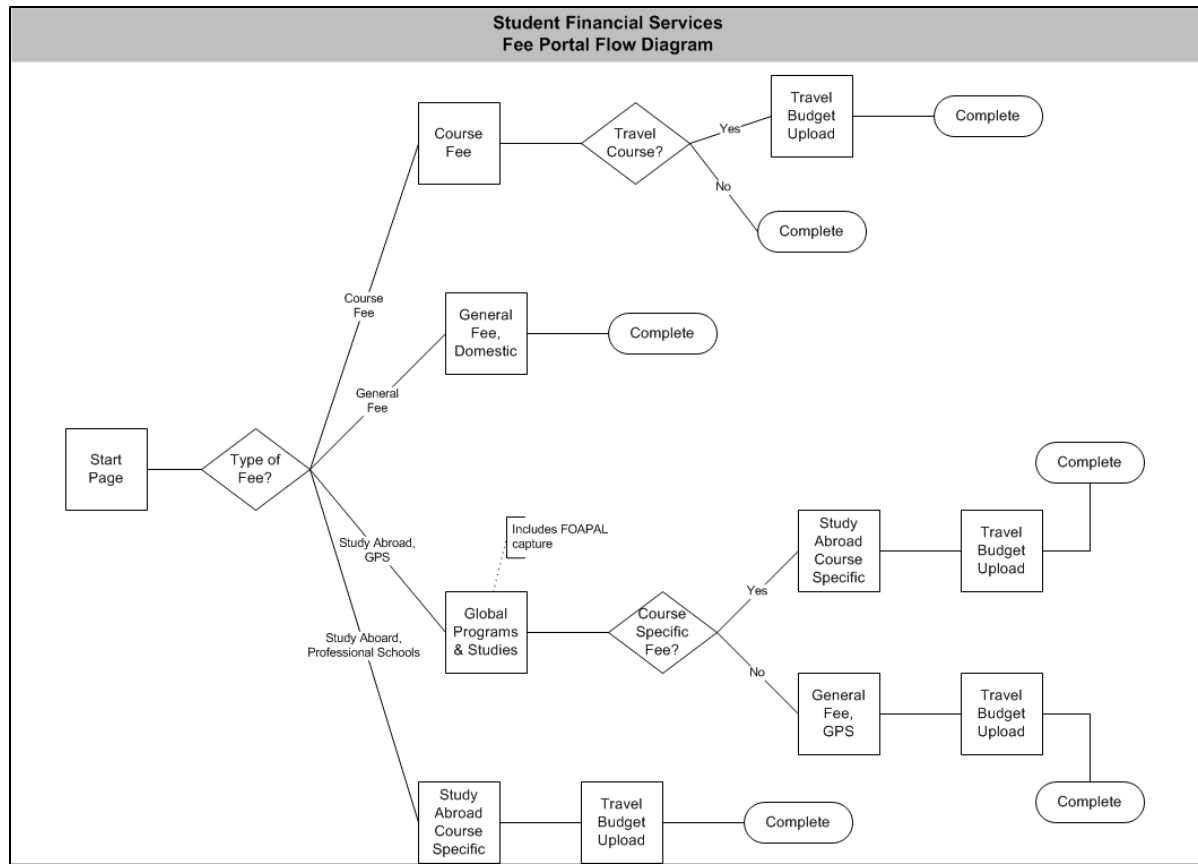


and responsive and, most importantly, everyone shared a common goal. Since the implementation was so rapid, the team worked on two fronts: developing a university-wide policy and procedure and designing a fee portal to accept and approve fees.

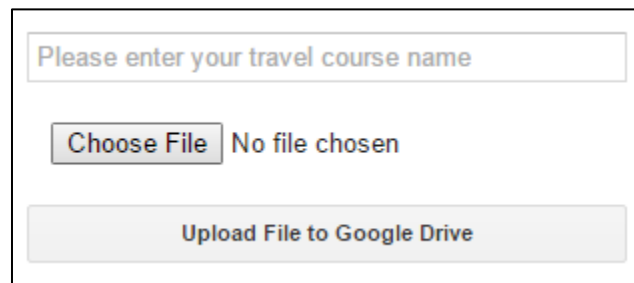
*Policy and Procedure Development* – The working group understood that a strong foundation would be needed to reach our goals of a consistent approach and that foundation was rooted in having a university-wide policy and procedure. The Provost’s Office, academic business managers and SFS partnered together to develop a draft policy. The Associate Provost for Budgeting & Planning took the lead and sought Provost and Dean’s Council support and ultimately approval for the policy. The working group developed the administrative procedure that supports the policy. Selected excerpts of the policy can be found in Appendix A.

*Fee Portal Development* – The project team began by sketching out what a data collection form would look like based on the required elements and scenarios developed during the design phase. In parallel, Finance Systems staff read a great deal about how Google Forms, Sheets and Drive worked (along with the intersection of each) and how Google Apps Scripts could be developed that could enhance the performance of each. The plan had the data entry occurring in Google Forms, users uploading additional data into Google Drive and then approvals occurring in Google Sheets.

Google Forms allows for conditional prompting. Based on the different scenarios and the different data elements required for each scenario, the project team drafted out a flow diagram that mimics the fee submission process of a campus user.



A key component of making Google Forms work was to determine how to allow campus users to upload travel budget spreadsheets. Research proved that a simple script could be written to augment the form and allow the user to upload an Excel spreadsheet directly to a central Google Drive folder that would be available to academic business managers and SFS alike to review and approve the submitted data. The form can be seen in Appendix B.



The approval process was designed to occur in Google Sheets. All of the uploaded data would automatically route to a spreadsheet dedicated to each school that the academic business manager (and anyone else needed) would have access to. The business manager and Dean could review the data submitted, approve or deny it, and then the data set would be

ready for SFS review. The data could then be loaded into Banner for the fee assessment process to consume. This is a manual step today, similar to what it has historically been but the data is comprehensive and scrubbed prior to data entry. An example approval worksheet can be found in Appendix C.

Throughout the development process, the project team continually shared prototypes with the larger group of academic business managers. They provided feedback on the look and feel, wording of each question and process flow. They tested the application with real data to see how the submission process worked from an end user perspective.

Pilot testing in the spring and early summer of 2016 proved successful. A representative user from the Music Department was also selected to provide process and usability feedback. Originally the project team was hopeful to use her feedback to develop a comprehensive training program but she thought everything was so intuitive and well laid out that only a minimal quick guide was necessary.

The policy, procedure and fee portal application were rolled out in early August 2016 for the spring 2017 billing cycle. Students and parents receive these bills on November 1, 2016.

## **Benefits**

There are numerous benefits with having a fully electronic fee submission process that SFS is beginning to enjoy: improved service to campus constituents, improved transparency, coordination and communication, and improved internal controls.

- *Improved Customer Service* – Students and parents can now rely upon the timeliness and quality of their student account bills. SFS staff can now focus on data quality before the fact

instead of having to fix student accounts after issues have surfaced. Additionally, faculty and staff can now feel assured that their departments will properly receive credit for all of their revenue.

- *Improved Transparency, Coordination and Communication* -- Deans and their senior business managers are able to have full knowledge and transparency of all student revenue for their schools. Faculty and staff within a school are now more coordinated and accountable to their respective Dean's offices. The implementation of this new business process opened up communications between SFS, Provost's Office and the schools to a much deeper level, providing a great foundation for future initiatives.
- *Improved Internal Controls* – The fee portal provides a consistent and auditable submission and approval process for all fees. If fees do not go through this process, they will not be billed to a student's account. Additionally, SFS is able to ensure that tax reporting, via 1098T forms, is accurate for IRS compliance.

## **Retrospect**

The program has been very successful so far, but the project team has learned several key items throughout this project:

- *Expand the Stakeholder Group* – The partnership between the Provost's Office, academic business managers, SFS and Finance Systems was exceptional and provided for strong change management. Looking back, however, Internal Audit should have also been included as an additional stakeholder from the beginning. They were brought into the conversation toward the end but could have shared valuable insights and perspectives

regarding the SFS internal control environment that may have potentially added more color to the conversation.

- *Coordinate Communications* – The schools were individually charged with communicating the new process to their constituents. Looking back, it would have been a better plan to coordinate a communication plan and not rely on any school to do it alone. Pooling resources and ideas together would have allowed the messaging to be more consistent – both in content and timing.
- *Automate the Feed into Banner* – A feed of the final, approved data sets into the Banner fee assessment tables was part of the original scope. However, knowing the timeline was condensed, this functionality would need to be part of the next phase. Adding this functionality will ensure the final step of the process is not met with any data entry errors. While this was not in the first phase scope, the project team did discuss it and ensured that the data collection process identified all of the required elements. It is very important to keep the end in mind throughout the design phase.

## **Appendix A: Selected Excerpts from Fee Portal Policy**

Generally, the university seeks to limit the fees charged to student accounts beyond those approved by the Board of Trustees. We recognize that students and parents assume that the tuition rate is set to cover expenses related to a student's courses. Therefore additional fees should be rare and require justification from the department requesting the fee and approval from the relevant Dean's Office. Justification for a new fee should include documentation indicating the offering of the course requires financial expenditures above and beyond the usual and customary departmental expenses for offering a course, and that the department does not have sufficient funds to cover these expenses. The relevant Dean's Office must provide approval before any new fee will be assessed on student accounts.

Student Financial Services is responsible for assessing all fees that are billed to a student's Wake Forest University account. In order to ensure that amounts billed to students are complete, accurate, and approved by the relevant Dean's Office certain information must be collected and maintained in a central location. In an effort to facilitate the collection of this data, all fees that are to be assessed to a student's account must be requested through the Student Fee Portal by the published deadline.

Any changes or updates to information initially provided must be done within the Student Fee Portal (not via email, phone calls or other forms). Any fees that are not approved by the stated deadline will not be assessed for that semester.

## Appendix B: Fee Portal Screenshot

This screenshot displays the first set of questions that each campus user must answer. Answers to these questions guide what data is requested on future screens.

The screenshot shows a Google Forms interface for a 'Wake Forest University New Fee Request Form'. The form is titled 'Wake Forest University New Fee Request Form' in a blue header. Below the title, there is a paragraph of introductory text: 'This form is to be used by all Schools to request a new fee. This fee will be shown on the student bill. Submitted requests will be routed to the appropriate Dean (or designee) for approval prior to being billed by Student Financial Services.' This is followed by a note: 'New fee requests must be submitted no later than September 23, 2016.' There are two contact options: 'Direct questions to Kim Widener at [widenkh@wfu.edu](mailto:widenkh@wfu.edu) or x4732.' and 'No accounting (FOAPAL) information will be collected; this information will be added during the approval process.' A certification statement follows: 'By submitting this form, I certify that the chair has reviewed and approved the requesting of this fee.' Below this is a note: 'Your email address ([andersna@wfu.edu](mailto:andersna@wfu.edu)) will be recorded when you submit this form. Not you? [Sign out](#)' and a red asterisk indicating a required field. The first question is 'New fee description, including why this fee needs to be billed to students. \*' with a text input field. The second question is 'What Division is the fee associated with? \*' with a list of radio button options: Undergraduate College, Business, Business, Divinity, Graduate, Law, Online (Counseling & Human Services), and Global Programs and Studies. The third question is 'Requesting faculty/staff name. \*' with a note 'If this fee is being submitted on behalf of another individual, please enter their name below.' and a text input field. The fourth question is 'Requesting department's name. \*' with an example 'Example: History department' and a text input field. The fifth question is 'Description of the fee. This description will be displayed on the student bill. \*' with a note 'This description is limited to 30 characters, including spaces.' and a text input field. The sixth question is 'Is this a one time fee or a recurring fee? \*' with a note 'A recurring fee will be billed indefinitely. If you are unsure that the fee will be recurring, please select One Time.' and two radio button options: One Time and Recurring. The seventh question is 'Choose the term(s) in which the new fee should apply \*' with a note 'You may choose more than one term - if applicable. For recurring fees, please select the term in which the fee should begin being charged.' and a checkbox option: Spring 2017 (201710). The eighth question is 'Enter the amount of the charge (per term). \*' with a note 'Please refrain from using commas or dollar signs. Charges must be rounded to the nearest whole dollar.' and a text input field. The ninth question is 'Is this a specific course fee or a general fee billed to all students within your school/program? \*' with a note 'Specific follow-up questions will be required for each choice. 1) Course fees are billed to all students registered in a particular CRN. 2) General fees are global in nature applying to entire schools or programs; they are not course specific. 3) Study Abroad, Global Program and Studies - for GPS use only. 4) Study Abroad, Professional Schools - study abroad fees billed by the professional schools.' and a dropdown menu labeled 'Choose'. At the bottom of the form is a 'NEXT' button. Below the form, there is a footer: 'Never submit passwords through Google Forms.' and 'This form was created inside of Wake Forest University. Report Abuse - Terms of Service - Additional Terms'. The Google Forms logo is at the bottom right.

## Appendix C: Approval Spreadsheet

This is a sample approval worksheet for the Undergraduate School. All key fields are displayed.

To aid in the approval process, business managers and Deans have access to prior term fees for comparison purposes.

The screenshot shows a Google Sheets spreadsheet with the following data:

Row	Field	Request 1	Request 2	Request 3
1	Approval			
2	Comments			
3	Submit time	9/26/2016 10:16:58	9/26/2016 10:20:48	9/26/2016 10:43:06
4	Username	tuttlel@wfu.edu	tuttlel@wfu.edu	tuttlel@wfu.edu
5	Brief description of fee	Lab Fee. This fee should be charged to students to offset the \$150 per student cost of consumable lab supplies.	Lab Fee. This fee should be charged to students to offset the \$150 per student cost of consumable lab supplies.	Lab Fee. This fee should be charged to students to offset the \$150 per student cost of consumable lab supplies.
6	School fee is associated with	Undergraduate College	Undergraduate College	Undergraduate College
7	Requesting party	Mark Welker	Mark Welker	Mark Welker
8	Requesting department	Chemistry	Chemistry	Chemistry
9	Description of fee shown on student bill	Lab Fee	Lab Fee	Lab Fee
10	One time or recurring fee	Recurring	Recurring	Recurring
11	Term(s) in which fee should apply	Spring 2017 (201710)	Spring 2017 (201710)	Spring 2017 (201710)
12	Amount of Charge (Per term)	\$50	\$50	\$50
13	Fee type - course, general, study abroad	Course Fee	Course Fee	Course Fee
14	Course Fee CRN #1	11616	11653	50166
15	Course Fee CRN #2	50544		81455

The spreadsheet interface includes a menu bar (File, Edit, View, Insert, Format, Data, Tools, Add-ons, Help), a toolbar with various editing tools, and a bottom navigation bar with tabs for 'New Fee Approvals', '201610 Regular Fees', '201610 Course Fees', '201680 Regular Fees', '201680 Course Fees', '201710 Regular Fees', and '201710 Course Fees'. An 'Explore' button is also visible in the bottom right corner.