21 Account User's Guide

The purpose of this User's Guide is to provide guidance to campus on setting up new 21 (Recharge) accounts. Your Campus Service representative can answer any questions you might have or provide further assistance if required.

Definitions:

Billing Rates – The amount charged to a user for a unit of product or service. Billing Rates are usually computed by dividing the total annual costs of service by the total number of billing units expected to be provided to users of the service for the year. Per UG Subpart E §200.468, Billing Rates related to Recharge accounts must be approved at a minimum of every two years.

Billing Unit – The unit of service provided by self-funded activity. Examples of billing units include hours of service, animal care dates, test performed, machine time used, etc.

Business Plan – The Business Plan offers a means of communicating plans to others and provides the basis for cost recovery. The 21 account Business Plan will include the following sections; General Description, Internal Customer Analysis (this can also be combined in the General Description section), Revenue and Expense Analysis, and Additional Considerations. Billing Rate Calculations and a Three-Year Projection may be included as part of the Business Plan or provided as separate documents.

Deficit – The amount that the cost of providing a service exceeds the revenue generated by the service in a month and/or fiscal year.

Direct Cost – The direct costs are those costs that can be identified specifically with a particular final cost objective (UG 200.413). Only cost directly related to the work performed or supplies purchased may be charged as direct costs. These costs include salaries, wages, and fringe benefits of University faculty and staff directly involved in providing the service, travel expenses, materials, supplies, purchased services, equipment rental or depreciation, interest associated with equipment acquisitions, etc.

Fiscal Officer (FO) – The individual in the day-to-day financial role of the account, that approves the KFS documents related to the account. The FO is the contact person for any questions regarding balances or billings on the account.

Indirect Cost – The indirect costs are those costs that cannot be identified specifically with a particular cost objective. For example, salaries of administrative and clerical staff that cannot be directly linked to the project are indirect as they have no direct relationship to the work performed. (UG 200.414)

Kuali Financial System (KFS) – Kuali is the general ledger system of record for financial transactions and reporting of the University, containing offsetting debit and credit entries.

Object Code -- An object code refers to a specific classification of a transaction, such as revenue or expense, and asset or liability, and that describes the nature of the transaction (e.g. goods or services purchased, type of revenue received, etc.). Object codes must be four numeric characters in length. A complete object code listing can be found on the Business and Financial Services home page.

Recharge Center (RECHAR) -- The purpose of the Recharge Center (aka Recharge account) is to provide goods or services to multiple users, both internal and possibly external (if under $5K in amount), which are in alignment with the mission of Colorado State University. Recharge accounts should be revenue neutral, meaning the revenues should not exceed the costs of the center on a rate-by-rate basis. The user fees charged for use, or services provided by the center, must be based on actual costs on a rate-by-rate basis. The charges can only be for direct costs. Revenue in these accounts should be coded to internal revenue object codes (48xx-49xx) and broken down by rate. Up to a two-months' working capital balance is allowed within the account, however, this would be the summation of all the Rates surpluses and deficits. Surplus/deficits typically are taken into consideration in future Billing Rates. All deficits are the responsibility of the department and can be subsidized by another account if the department chooses not to resolve deficits by calculating the deficit into future Billing Rates. If the Recharge account needs to purchase equipment that will put the account in deficit by $50K or higher, the Controller will need to review and approve the account to be in deficit over the life of the equipment. Campus Services will review and approve all other equipment purchases. Contact your Campus Services representative for more information. The account number begins with a 21.

Sponsored Accounts – The Sponsored accounts are federal, state, and private contracts, grants and agreements and are defined by the signed funding document. The funds are to be expended for the purpose specified by the external sponsor and must be allowable according to the signed agreement under which funding is awarded and/or guidance provided by the funding entity. The account number begins with a 53. General Operation (22) accounts can never charge a sponsored (53) account.

Surplus – The amount that the revenue generated by a service exceeds the costs of providing the service during the fiscal year.

Unallowable Costs – Costs that cannot be charged directly or indirectly to federally Sponsored Programs through a Recharge (21) account. These costs are specified in OMB Uniform Guidance 200.420 and the Federal Unreimbursable Costs Procedure. Common examples of unallowable costs include alcoholic beverages, bad debts, charitable contributions, entertainment, fines and penalties, goods and services for personal use, and interest (except interest related to the purchase or construction of buildings and equipment). In addition to the costs listed above, contingency reserves are not permitted in Recharge accounts.

Working Capital – Working Capital is an amount up to a maximum of two months of expenditures the Recharge account can retain to fund operations during fluctuations of revenue and expenditures. This is the maximum balance the Recharge can retain in its operating budget at the end of each fiscal year. Working Capital is calculated by taking the past 12 months' expenses, divided by 12 months, and multiplying by two months. For example, if 12 months of expenditures equal $150,000, then it would be $150,000 / 12 months * two months equals $25,000. Therefore, the two months' working capital allowed would be $25,000 in this example. Exceptions to the working capital of two months may be made only when approved by the Controller and Office of Sponsored Programs.

New Account Requests:

Before submitting the Business Plan, Billing Rates, Three-year Projection and Fund Budget Request form, the department should first assess the viability of the internal activity. There must be reasonable assurance that the internal business venture will generate the necessary revenue required to cover the operating costs on a rate-by-rate basis. The anticipated revenue should also be $5,000 or more.

New 21 (Recharge) account requests need to include a Business Plan, Billing Rates, Three-Year Projection, and a Fund Budget Request form with appropriate signatures. Once all documentation is approved by the department, the documents should be emailed to Campus Services for approval. New 21 accounts need to be approved by Campus Services, the Controller, and Sponsored Programs. Campus Services will route the request on for the additional reviews.

After final approval, Campus Services will send an email to the requestor to inform them the Business Plan and Billing Rates have been approved and the Kuali account document can be created. The Business Plan, Billing Rates, Three-year Projection, Fund Budget Request form, and approval email need to be attached to the Kuali account document. All documentation needs to be attached in PDF format.

Review of 21 Accounts:

Campus Services reviews the balances in 21 accounts quarterly to ensure the account is not in deficit and does not have a surplus larger than two months' working capital. If the account is in deficit or has a surplus larger than two months, Campus Services will contact the Fiscal Officer on the account for an explanation on the deficit or surplus. The Fiscal Officer should review the deficit on a rate-by-rate basis to determine what is causing the deficit. If an account deficit is substantial or recurring, a revised Business Plan and Billing Rates will be required for review and approval by Campus Services.

Any 21 account that bills 53 Sponsored accounts is subject to an audit review at least every five years. The audit review differs from the annual Business Plan and Billing Rate updates requested from Campus Services. The audit review is completed by Campus Services in conjunction with Sponsored Programs. During this review, the invoices are reviewed and compared to the Business Plan and Billing Rates. If an invoice does not match the Business Plan and Billing Rates Campus Services has on file, it will result in a finding requiring a response and correction, as necessary. Depending on the severity of the finding, Campus Services will conduct the 21 billing 53 review the following year, or within two years instead of five years. If during the next review the finding is not resolved, a meeting will be scheduled with the Department, Business and Financial Services, and Sponsored Programs to discuss solutions to resolve the issue. If recommendations are made, the account will be reviewed the following year, and if the corrections are not made, further action will be considered. To avoid a finding, make sure to send Business Plans and Billing Rates to Campus Services for review and approval prior to implementing updated Billing Rates and processes. 21 Account Billing Rates need to be reviewed and approved by Campus Services at least every two years. Campus Services emails yearly as a reminder to review Billing Rates.

Business Plan and Billing Rates:

A Business Plan offers a means of communicating plans to others and provides the basis for cost recovery. The process of putting a Business Plan together encourages the fiscal officer to take an objective and critical look at the business. A Business Plan becomes an operating tool to help manage the business and make it successful.

The Business Plan is in a narrative format and serves as a foundation document for reference as the business evolves. It provides a guide for monitoring how well the business is meeting its original objectives and helps identify any variances caused by changes in the business activity. A 21 account Business Plan should include the general categories: General Description, Internal Customer Analysis (which may be combined as part of the General Description section), Revenue and Expense Analysis, Additional Considerations, Billing Rate Calculations, and Three-year Projection. Business Plans should be written in paragraph format (not question/answer format).

A. General Description

This section should briefly describe the business activities and goods/services offered. While creating the Business Plan, keep in mind the below questions and factor them into the Business Plan.

1. What are the services/products?
2. Who will use it (internal customers or both internal/external customers)?
3. What other products do you plan to develop?
4. How does this activity relate to the mission of the University, College, or Department?
5. Who will oversee the operation (include position title)?
6. What assumptions are you making about the economy or other related factors that may impact your projections? Identifying and monitoring these factors will help anticipate needed changes in operations.
7. If this account is in deficit, will the deficit roll into future Billing Rates or will the department cover (subsidize) the shortfall?

B. Internal Customer Analysis (can be combined as part of the General Description section)

This section should include a comprehensive review of the internal customers and should assess whether the product/service demand warrants establishing a new activity. Although this review is subjective, billings to customers must ultimately cover expenses incurred. Therefore, it is imperative to determine whether sufficient sales/revenue potential exists to ensure the ongoing viability of the activity.

Analyze your internal market by answering the following questions:

1. Who is the current internal customer base?
2. How do you reach clients?
    a. What free methods will be used to reach clients (referrals, emails, etc.)?
3. What is the approximate number of accounts to be served? Will it serve 53 accounts?
4. How does your product/service meet CSU's internal customer needs?
5. Is this cost-prohibitive (does it exceed revenue)?
    a. If yes, you may want to reevaluate continuing the activity.
    b. If you believe this activity is imperative to the mission of the University and must continue even if cost-prohibitive, explain your justification and reasons for this.
    c. Explain any current subsidizing agreements that this account has and identify the accounts providing funding.

6. Are there any patent or license issues related to the activity?
7. If this account is in deficit, what account will subsidize it if you choose to not roll forward the deficit into future Rates? A 21 account cannot subsidize another 21 account.

C. Revenue and Expense Analysis

Identify all revenues including internal, external, and other state agency customers. External revenue should be less than $5K in amount if posting to a 21 account. Identify all expenses required to deliver goods and services. These expenses include direct labor and operating expenses required to produce the goods or services on a rate-by-rate basis. These revenues and expenses will be itemized on the Fund Budget Request form.

The following questions may help develop the Revenue and Expense Analysis:

- Does this activity provide services/products for both internal and external customers? If yes, which of the following methods are used to record revenues and expenses:
    - Operate out of a 21 account and bill the 22 account. Please identify the 21 or 22 account.
    - Operate out of one account where external (22 account) revenues in the 21 accounts are less than $5,000. 22 account activity cannot bill 53 accounts, even if the amount is under $5,000.
- Are the revenues and expenses evenly distributed over the fiscal year (July-June)?
    - If no, please explain (e.g., costs accumulate monthly, but project billings occur quarterly)
- Does this activity use equipment?
    - If yes, was the equipment purchased from this account causing ~~so~~ depreciation/recharge postings to occur?
    - If no, what account purchased the equipment? Note, if a department is planning to move equipment to or from a 21 account, justification needs to be provided as to why. If an incorrect account was initially used, the correction should be completed in the same year as the equipment purchase.
    - Is the cost of the equipment depreciation/recharge included in the Billing Rates?
    - NOTE: For 21 accounts, split-funding of equipment is typically not allowed. Equipment needs to be purchased fully on the 21 account and the 21 will bill other areas for equipment usage. This is a requirement for accurate allocation.
    - Contact Property Accounting to ensure the proper accounting is done for the equipment if greater than or equal to $5,000.
- Does this activity have inventory?
    - If so, how often is the inventory counted internally within the department to verify accuracy of records? Are additional steps being taken to confirm inventory at the end of the fiscal year is accurate?

D. Additional Considerations

The following questions may be helpful in developing this section:

- Do the activities produce or use hazardous materials? If so, contact Environmental Health Services. Include a description of any hazardous waste that will be produced, and any hazardous materials to be used.

E. Billing Rates

Billing Rates are calculated to ensure cost recovery. Review Billing Rates annually and adjust for any changes. Updates to the Billing Rates need to be sent to Campus Services for review and approval prior to using, this must be done at least every two years. Billing Rates are developed using one-year financial and operating data on a rate-by-rate basis. Normally this period is the University's fiscal year (July 1 – June 30), but the activity may require another appropriate period. When considering another base period, please explain why the alternative is necessary. It is the Fiscal Officer's responsibility to retain schedules of current and past billing rate calculations. Billing Rates should also include more than just a list of numbers. It needs to be evident how those amounts were calculated.

Example, if an employee works on an account full-time and has a salary and fringe of $50,000 and we want to get their hourly rate to charge, we will divide by productive hours (2,080 hours less vacation, sick leave, etc.). In this example, we will assume that productive hours are 1,800. That gives us $27.78 per hour. In the billing rate calculation, we would show the salary and fringe and how we got to the hourly rate as stated in this example.

Identification and recording of all applicable expenses incurred by the activity are the responsibility of the Fiscal Officer. For billing rate calculation purposes, expenses are categorized as either direct costs or indirect costs. Direct costs are those expenses that can be identified and charged directly to the job, such as labor plus employee fringe, equipment depreciation, and/or materials used directly on the job. Indirect costs are those expenses that cannot be identified with a specific job, and therefore, are prorated to all jobs. Indirect costs are not allowable on a 21 account. All expenses charged for the internal 21 activity need to be direct.

The Kuali Financial System allows a user to look at the account on a summary, object code, or transaction level detail. This should be reviewed and included as support. If this is a new account request with no history, details of the amounts that make up the Billing Rates are required as support.

General Billing Rate Calculation and Explanation:

The following general format (or one similar) is recommended for determining the Billing rates used to bill to customers. Descriptions of each component follow the format example. Detail behind each line item should be provided in the calculation (e.g., who makes up the direct labor along with the hourly cost, what materials are involved, etc.). Note that this calculation should be determined for each billing rate.

Description	Employee Annual Labor and Applicable Fringe Amount	Enter Service/Product 1 Description and Amounts Liquid Sample Fee Yearly Amount for Service/Product	Labor Allocation %	Annual Total	Monthly Total
Labor and Applicable Fringe:					
Engineering Graduate Student	32,000.00	1,792.00	5.60%	1,792.00	149.33
		-		-	-
		-		-	-
		-		-	-
Salary Subtotal				**1,792.00**	**149.33**
Supplies:					
Setup Supplies		200.00		200.00	16.67
Testing Supplies		200.00		200.00	16.67
Software		110.00		110.00	9.17
				-	-
Supplies Subtotal				**510.00**	**42.50**
Services:					
				-	-
				-	-
				-	-
				-	-
Services Subtotal				-	-
Depreciation/Recharge:					
				-	-
				-	-
				-	-
				-	-
Depreciation/Recharge Subtotal				-	-
Total Cost				**2,302.00**	**191.83**
Subsidy (for 21 accounts only)				-	-
Total Cost for Service/Product after Subsidy but Prior to External G&A Fee. See Below External Section for G&A Fee.				**2,302.00**	**191.83**
Total Internal Revenue for Service/Product after Subsidy				**2,302.00**	**191.83**
Yearly Internal Surplus/(Deficit)				**0.00**	**0.00**
Internal Activity Calculations					
Enter Total Hours Available/Year		121			
If Applicable, Enter Number of Samples/Services Per Hour					
Projected Internal Account Beginning Fund Balance on 7/1/2021					
Projected Internal Beginning Cash Balance on 7/1/2021					
Internal Hourly or Per Service Rate				**19.00**	
Internal Rate Per Sample				**N/A**	

***Billing Rate Templates can be found on the Campus Services Website but departments can also choose to create their own.**

Component Descriptions:

Labor and Applicable Fringe – Labor costs for workers directly involved in the production of products or performance of services. Cost of applicable fringe benefit rates are included. Each worker involved has a labor amount for the year and applicable fringe of $xx. An allocation % should be determined for the direct time that worker will be working on the 21 account for that specific product/service for each Billing Rate. The amount to recognize is calculated by multiplying "Labor and Applicable Fringe" x "Allocation %". In the above example, the

Engineering Graduate Student's pay amount is $32,000 and 5.60 % of his time is spent on the Liquid Sample Fee. The annual amount to recognize for cost is $32,000 x 5.60% = $1,792.00

Supplies – Raw supplies/materials that can be specifically identified with this product or service. Supplies are charged at actual cost. Costs may be treated as indirect costs when the value is small in relation to overall account operation and thus should not be charged to the 21 account. If this is a lump sum for supplies, then another document should also be attached showing detailed support of the amount, the unit cost and the quantity. It should agree with the overall amount listed in the Billing Rate calculation spreadsheet. Supplies should be allocated to each specific rate. In the above example, $510 of supplies/materials are reflecting for the Liquid Sample fee rate.

Services – direct services that are required for the rate. In the above example, no direct services are needed for the Liquid Sample Fee. An example of direct services may be if CSU needed to ship out the liquid sample to an external vendor for additional analysis.

Depreciation/Recharge – Equipment purchases on 21 accounts will be spread out over the life of the equipment and a monthly charge (i.e., depreciation/recharge) will post to the account for the equipment. This cost should be built into the specific Billing Rates that the equipment is used for.

Total Cost (Prior to Subsidy) – The total of expenses that can be specifically identified with the product or service. In the above example, $2,302.00 of cost can specifically be identified to the Liquid Sample fee rate.

Subsidy – The total amount that will help subsidize a rate if cost will exceed revenue. The account planned to help subsidize the 21 account should be listed in the Business Plan.

Total Cost (After Subsidy) – The total cost after subsidy mentioned above. A deficit should not exist after the subsidy.

Enter Total Hours or Activities Available/Year – the number of hours or effort that will be used for producing the good and/or service.

Samples/Services Per Hour – A department can choose to go down to the sample level if they also include the number of samples/services they plan to produce in a given time.

Internal Hourly or Per Service Rate – This calculates the internal Hourly or Per Service Rate factoring in the total cost and hours available annually. In the above example this is a calculation of $2,302.00 of cost/121 hours available. This calculates a $19.00 per hour rate.

Internal Rate Per Sample – This calculates the internal rate per sample. It would be the hourly rate divided by number of samples if a department chooses to go down to that level for billing.

Note: Indirect costs cannot be identified with a specific product or service and are unallowable on 21 accounts. All costs listed above are directly related to the product/service offered.

F. Three-year Projection

Using a three-year time period gives the Fiscal Officer an opportunity to review and predict the account's status in the future. When completing a Three-year Projection for the first time, information is based on a sound estimate of production volumes and operating expenses on a rate-by rate-basis and will be submitted to Campus Services as part of the account create review. After the first year is completed (or close to completion), actual data can be used to assist with the ongoing projections. Updated projections do not need to be sent to Campus Services but should be used internally within the department to predict future outcomes within the 21 account.

Projections are normally summarized by revenue and expense categories. Revenues should be split between product (by each good or service) categories. Expenses are usually categorized as salaries, supplies, travel (if applicable), and services. These categories are similar to those used when entering budget information during the budget construction process. All these line items should provide necessary detail on what makes up those amounts needed (e.g. salary information per individual, what materials are involved, travel anticipated) for each rate.

The second year and third year projections should be based on anticipated increases/decreases in revenues or expenses (e.g. employee raises) and the impact on each Billing Rate. It may be necessary to calculate a new Billing Rate depending on the expected changes.

Fund Budget Request Form:

Budget amounts are calculated by reviewing expected activities for the upcoming year. Prior year activities provide a guideline for current year budgets. Budgeted amounts are adjusted to reflect any changes in the activity (rate) such as additional staff. A fully signed Fund Budget Request form is required any time a new 21 account is created. A Fund Budget Request form also needs completed any time Billing Rates are updated, signatures are not required on the form for billing rate updates.

The Fund Budget Request form is divided into categories that coincide with the KFS Object Type Code Classifications. Various object codes are rolled into one object code for budget recording purposes. When completing the Fund Budget Request form, refer to the activity's billing rate calculation and the prior year KFS activity and rate reconciliation. 21 Accounts should not have a receivable on the account as that would imply external sales which should be in a 22 account. Rare exceptions to this rule exist if the external sales are planned to be under $5,000 and will post within the 21 account. If purchasing promotional items or advertising/publicity on the 21 account, there needs to be good support behind this and will need approved as part of the Business Plan and Billing Rates. A 21 account should use free advertising methods (email, word of mouth, posting of their Billing Rates on the web page, etc.).

Revenue is the compensation received for the products or services provided. For internal revenue received via internal order, Internal Billing, and Distribution of Income and Expense documents use object codes 48xx-49xx. The revenue should be allocated to the appropriate good or service on the Recharge account.

Expenses are the costs, including salaries, associated with the products or services provided by the activity. The expenses should be allocated to the good or service for the Recharge account. Business

Authorized Functions (object code 6649) are not allowed on 21 accounts unless a rare exception has been approved as part of the Business Plan and Billing Rates.

21 Account Checklist

___ Assess the viability of the activity.
___ Does the activity fit with the mission of the University?
___ Will the account have any external revenue (under $5,000 in amount)?
___ Write Business Plan.
___ Create Billing Rate calculations that includes detailed support behind rates.
___ Create Three-year Projection.
___ Complete 21 Fund Budget Request form.
___ Where is the activity currently taking place if it already exists?
___ If activity involves purchasing equipment, what account will fund the purchase?

Example Business Plan and Billing Rates:

Laser Sensing and Diagnostics
2125000

General Description

The Center for Laser Sensing and Diagnostics (CLSD) conducts a range of research activities connected to plasma studies and laser diagnostics applied to fields including aerospace, plasma engineering and atmospheric monitoring. This research is externally funded by a broad range of government agencies and industrial sponsors.

The purpose of the requested 21 account is to enable the CLSD to provide equipment resources and testing services for internal CSU customers (via 53 accounts). Example CSU PIs, all with applicable 53-account numbers, who may use these resources include the PI of the CLSD Azer Yalin (expected to be the primary user), along with possible users Anthony Marchese, Bret Windom, Mostafa Yourdkhani and John Williams from Mechanical Engineering, as well as professors Jorge Rocca and Carmen Menoni from Electrical and Computer Engineering.

The equipment and testing resources include: an optical parametric oscillator (pumped by an Nd:YAG laser) that can deliver laser light over a broad spectrum (~220-1700 nm), several high-power Nd:YAG lasers that can deliver intense pulsed beams, a suite of cavity ring-down spectroscopy sensors to measure low loss optical films as well as trace gases, a sputter measurement facility to measure differential and total sputter yields of material samples, and a laser triggered high-voltage switch for pulsed-power research.

These activities strategically support the mission of the College of Engineering (COE) and Colorado State University (CSU) in the following ways:

- The activities are related to research in atmospheric science, lasers and optics, and energy conversion and propulsion; all of which are areas of emphasis and growth within COE and CSU.
- Students and research personnel will be involved in the equipment use and tests thereby gaining valuable technical experience with state-of-the-art plasma and laser equipment and techniques.
- For industrial sponsored projects, students and research personnel will gain exposure to industry, including developing a better understanding of real industrial problems and meeting industry contacts.

The CLSD Director (Professor Azer Yalin) is expert with all applicable equipment and testing resources all will oversee all operations.

Revenue and Expense Analysis

The Center for Laser Sensing and Diagnostics expects to generate more than $5,000 in annual revenue and expenses and are expected to be evenly distributed throughout the year.

The business activities for this Recharge account will use equipment that has already been purchased. A partial list of equipment for the Lab includes: An Optical Parametric Oscillator Laser, several high-power Nd:YAG Lasers, a suite of Cavity Ring-Down Spectroscopy Sensors, a Sputter Measurement Facility to measure sputter yields and a Laser Triggered High-Voltage Switch.

The Lab will not be carrying inventory. It will use replacement parts and consumable parts that will need be used, immediately.

The Lab isn't planning for or expects to see extraordinary expenses.

As described below, revenues will meet the operational costs of using the applicable CLSD equipment and test facilities. We adopt a low-risk approach by ensuring that baseline operating costs are minimal. In this way, success of the Business Plan does not require a large volume of tests. On the other hand, we have the flexibility to grow the CLSD test program if test activities and volumes are significant.

Additional Considerations

Retention for billing records is 6 years after the service project ends.

Unallowable costs will not be charged to the account. A Deficit or Surplus by a Billing Rate will be rolled forward into future years and adjustments will be made to the Billing Rates that are creating the deficit or surplus balance.

Deficit balances are not anticipated. However, should they occur the CLSD would cover any deficits with the account 1674700-Yalin. Our intention is to provide for our cash needs and to maintain sufficient balances to cover operating costs.

Revenues are derived from sponsored research (53- account) activities by CSU PIs based on their projects with external sponsors. The frequency of these activities impossible to definitively predict, but the data given below is based on reasonable (conservative) revenue expectations based on the last few years of CSU research activity by the relevant PIs, in particular, Dr.Yalin.

The Lab produces no hazardous waste, nor does it have any special security concerns. We have a specific and focused Safety Training program for all lab personnel including chemical, high-voltage, and laser (eye) safety.

Financial 3-Year Projection Example:

******Note in this example, expenses are not anticipated to increase in years two and three. In a typical setting, labor and expenses might see an annual increase.**

	FY 2019-2020		FY 2020-2021		FY 2021-2022	
Beginning Balance		$0.00		$0.00		$0.00
Revenues	**# Hours**	**$ Total**	**# Hours**	**$ Total**	**# Hours**	**$ Total**
OPO - Simple	120	$1,850.00	120	$1,850.00	120	$1,850.00
OPO - Complex	240	$7,400.00	240	$7,400.00	240	$7,400.00
Nd:YAG - Simple	0					
Nd:YAG - Complex	240	$4,440.00	240	$4,440.00	240	$4,440.00
CRDS - Simple	0					
CRDS - Complex	120	$3,700.00	120	$3,700.00	120	$3,700.00
Sputter - Simple	0					
Sputter - Complex	0					
Laser Switch - Simple	0					
Laser Switch - Complex	240	$11,100.00	240	$11,100.00	240	$11,100.00
Total Revenue		**$28,490.00**		**$28,490.00**		**$28,490.00**
Grad Student Salary		$16,632.00		$16,632.00		$16,632.00
Undergraduate Hourly Salary		$4,004.00		$4,004.00		$4,004.00
Supplies		$7,854.00		$7,854.00		$7,854.00
Total Expenses		**$28,490.00**		**$28,490.00**		**$28,490.00**
Ending Balance		**$0.00**		**$0.00**		**$0.00**

Notes:

-We assume a beginning balance of zero in the account.

-Projected revenues are reasonable expectations for use of equipment and testing services based on past research, current grants, and expected future activity. The overall projections remain similarly robust with changes to the exact revenue activities.

-The expenses are computed based on our historical (known) costs of these corresponding activities based on conducting similar research at CSU for 17 years. See appendix for projected expenses for each service, as well as table below to match against the 3-year Revenue Projection given above.

Billing Rate Calculation Example:

In the below example, the overall expense per rate (OPO Simple, OPO Complex, YAG Complex, CRDS Complex, and Laser Switch Complex) is being determined. Total number of hours anticipated for each also is being determined which helps to calculate the billing rate.

Department	Mechanical Engineering							
Rate Development:	Dr. Azer Yalin							
Description			**OPO Simple**	**OPO Complex**	**YAG Comples**	**CRDS Complex**	**Laser Switch Complex**	**Anticipated Usage**
People								
Grad Student			1,080.00	4,320.00	2,592.00	2,160.00	6,480.00	16,632.00
Undergrad Student			260.00	1,040.00	624.00	520.00	1,560.00	4,004.00
Service Contract								
Maintenance & Repair								
Supplies			400.00	1,600.00	960.00	800.00	2,400.00	6,160.00
Software			110.00	440.00	264.00	220.00	660.00	1,694.00
(Surplus)/deficit								
Depreciation								
Total Cost For Service	**A**		1,850.00	7,400.00	4,440.00	3,700.00	11,100.00	28,490.00
Unit of Measure	**B**	Hours	120.00	240.00	240.00	120.00	240.00	
Rate	**(A/B)**		15.42	30.83	18.50	30.83	46.25	
Revenue Generated	**(Rate*B)**		1,850.40	7,399.20	4,440.00	3,699.60	11,100.00	28,489.20
Surplus/(Deficit)			0.40	-0.80	0.00	-0.40	0.00	

Although they do not plan to use the rates listed below for the projected years, they also calculated the costs for the below Billing Rates just in case they are needed:

Department	Mechanical Engineering						
Rate Development	Dr. Azer Yalin						
Description	**Yearly Salary**	**YAG Simple**	**CRDS Simple**	**Sputter Simple**	**Sputter Complex**	**Laser Switch Simple**	**No Anticipated Usage**
People							
Grad Student		162.00	270.00	405.00	810.00	405.00	2,052.00
Undergrad Student		39.00	65.00	97.50	195.00	97.50	494.00
Student Hourly							
Service Contract							
Maintenance & Repair							
Supplies		60.00	100.00	150.00	300.00	150.00	760.00
Software		16.50	27.50	41.25	82.50	41.25	209.00
(Surplus)/deficit							
Depreciation							
Total Cost For Service	A	277.50	462.50	693.75	1,387.50	693.75	3,515.00
Unit of Measure	B	30.00	30.00	30.00	30.00	30.00	
Rate	**(A/B)**	**9.25**	**15.42**	**23.13**	**46.25**	**23.13**	
Revenue Generated	(Rate*B)	277.50	462.60	693.90	1,387.50	693.90	3,515.40
Surplus/(Deficit)		0.00	0.10	0.15	0.00	0.15	

Additional Resources:

- 21 and 22 Account Resources section on the Campus Services website
- Financial Rules and Procedures FPI 2-20 Recharge and General Operations