1. **Procedure Title:** Work in Progress: Fabrication of Equipment, Models, and Deliverables

2. **Procedure Purpose and Effect:** Procedures for any department or organization within the university regarding establishing and utilizing work-in-progress accounts for the fabrication of equipment, models and deliverables. These accounts accumulate costs and, upon completion of the fabrication, transfer those costs to the account that the finished product will reside in and apply the appropriate capital or non-capital object code. These accounts may also be used for special projects for Telecommunications and Facilities Management upon approval from Business and Financial Services.

3. **Application of Procedure:** This procedure applies to those departments or organizations that fabricate equipment, models and deliverables or have special projects where revenues and expenses need to be tracked over an extended period. Refer to FPI 4-11 (Software and Internally Developed Software) regarding software fabrication and FPI 4-12 (Intangible Assets and Internally Generated Intangible Assets) regarding intangible asset fabrication.

4. **Exemptions:** Any exemptions to this procedure require approval by Business and Financial Services and/or Office of Sponsored Programs if required per a contract, grant or agreement.

5. **Definitions:**

   A. **Betterment:** An enhancement, modification, upgrade or other similar expenditure in connection with an existing asset, which significantly extends its useful life, increases its utility or efficiency, or otherwise adds to the benefits it can yield.

   B. **Capital Equipment:** Capital Equipment, also known as movable equipment, includes items which are not considered an integral part of a university building, are non-expendable, do not lose their identity through incorporation into a more complex unit, have a useful life of more than a year, and have an acquisition cost of $5,000 or more, or another threshold if set by a contract, grant, or agreement.

   C. **Capital Equipment Fabrication:** The creation of an item of equipment or scientific instrument that is built or assembled from raw or semi-finished material by CSU personnel, including internal or external shop staff, and meets capital criteria.

   D. **Capital Model:** A capitalized model is intended for continued use for more than one year, even though it may be subjected to numerous modifications during its useful life, and costs $5,000 or more.

   E. **Deliverable:** A tangible or intangible object or service that is created with the intent to be delivered to a customer upon completion of the project.

   F. **Enhancement:** An increase or improvement in quality, value or extent.

   G. **Fabrication:** A manufacturing process in which an item is made from raw or semi-finished material instead of being assembled from ready-made components or parts.
H. Facilities and Administrative Costs (F&A): Facilities and Administrative costs are costs necessary to support research and other sponsored projects, but which cannot be readily assigned to individual projects (the indirect overhead costs). F&A rates are negotiated with the U.S. Department of Health and Human Services. F&A rates are applied to modified total direct costs of a project (Sponsored Funds).

I. Intangible Assets: Intangible assets are capital assets having no physical existence. Their value is limited by the rights and expected benefits that possession confers to the university. Examples of intangible assets include easements, water rights, timber rights, patents, trademarks and computer software. Copyrights are also included as examples of internally generated intangible assets in GASB Statement No. 51, Paragraph 45. Intangible assets can be purchased or licensed, acquired through non-exchange transactions, or internally generated.

J. Internally Developed Software: Software developed in-house by CSU or by a third-party contractor on behalf of CSU. Commercially available software that is purchased or licensed by the CSU and modified using more than minimal effort before being put into operation is also considered internally generated software. Examples of more than minimal effort would include changing code or fields, adding special reporting capabilities, etc. No substantive plan exists or is being developed to market the software externally.

K. Internally Generated Intangible Assets: Intangible assets are considered internally generated if they are created or produced by the university, or if they are acquired from a third part but require more than minimal incremental effort on the part of the university to begin to achieve their expected level of service capacity. Examples of internally generated intangible assets include; copyrights, patents, trademarks, and computer software.

L. Material: Property which may be incorporated into or attached to an end item to be delivered under a contract or which may be consumed in the performance of a contract. It includes, but is not limited to, raw and processed material, parts, components, assemblies, and small hand tools and supplies.

M. Model: A model is similar to equipment but is used and consumed during testing. An example is a wind tunnel model that is destroyed during testing.

N. Modification: A minor change, adjustment or alteration of an asset resulting from external influences, and not inheritable.

O. Non-Capital Model: A model that has a useful life of less than one year, regardless of cost.

P. Prorate: Determining the daily amount of a monthly charge based upon dividing the monthly charged amount by the number of days in the cycle (30 is normally used). To divide, distribute, or calculate proportionately.

Q. Software Enhancements and Upgrades: Includes modifications to existing internal use software that result in additional functionality; modifications to enable the software to perform tasks that it was previously incapable of performing.

R. Sponsored Work-in-Progress (SPWIP) Account: The source of a SPWIP account is a sponsored project fund account (53).
S. **Upgrade**: Raise to a higher standard, in particular improved an asset by either adding or replacing components.

T. **Work-in-Progress (WIP) Account**: The source of a WIP account is any university fund account other than a sponsored project fund account (53).

6. **Procedure Statement**: A fabrication takes place when the university makes or builds something in-house. The most important consideration for in-house fabrications is the capacity and expertise of organization staff and the facilities and tools required. Equipment, models or deliverables that are fabricated or based on the specification set forth by a researcher may result in an asset that requires identification and control. The university’s Kuali Financial System (KFS) allows for the accumulation of costs, incurred for fabrications, to a Work-in-Progress account when the anticipated total cost will meet or exceed $5,000; or for internally developed software or internally generated intangibles when the anticipated total cost will meet or exceed $50,000. Fabrications are exempt from F&A charges providing the equipment or model fabricated meets capital criteria and is not considered a deliverable. The Work-in-Progress accounts are a Project-To-Date account, which means you can track revenues and expenses across multiple years. Upon completion of the fabrication, the accumulated costs are transferred from the Work-in-Progress account to the account that the finished product will reside in and the appropriate object code is applied. For capital assets, this generates the capitalization entry and creates the asset record so depreciation can begin. If the asset does not meet capitalization criteria or is considered a deliverable, it will not be prorating to 1823 Equipment in Progress. Instead, the costs will be moved to an appropriate expense object code and subject to F&A costs.

A. **Capital Equipment and Capital Model Fabrication**: Movable fabricated capital equipment and capital models are assets created (built) by a university organization. A fabrication is not something that can be configured at a store or assembled (like a system) by the organization. Materials and direct labor used in the construction of the asset can be included in the cost of the fabrication. Direct labor for fabrications is defined as all hands-on assembly labor of the fabricated equipment, plus the direct supervision of that hands-on labor. Labor associated with research and the design of a fabricated asset should be expensed. In addition, labor costs that are impossible or impractical to trace to a specific fabrication should be expensed. The cost of individual components may be less than the capitalization threshold; however, if the finished tangible asset meets capital criteria, it will be capitalized.

Items having an acquisition value of $5,000 or more will be capitalized on their own merit if they are, or can be, considered stand-alone equipment (i.e., a computer, a power supply unit, etc.).

1. **Characteristics.** The term “Fabrication” is used in conjunction with movable equipment and models and should not be confused with building construction projects or deliverables. Fabricated equipment and models can be distinguished by any one of the following characteristics:
   a. **Original Development.** The fabrication construction creates a one-of-a-kind piece of equipment or model that is built (designed) and assembled from individual parts for use within the university.
   b. **Original Components.** Original components bear no relationship to the finished equipment and should be attached to, or internal to the finished equipment. Original components should not include equipment that can be used independently of the fabricated asset.

2. **Criteria.** In order to be considered capital equipment or a capital model, all of the following criteria must be met. The fabricated equipment or instrument:
a. Meets unique specifications (typically as outlined in a research proposal or award),
b. has a total estimated cost of $5,000 or more,
c. has an estimated useful life of 1 year or more,
d. when completed, will not be affixed permanently to a building or structure,
e. is tangible and capable of specific identification and continuous control through tagging and periodic physical inventory, and
f. is not considered a deliverable

3. **SPWIP and WIP Accounts.** When a department has identified the need to capture costs for a fabrication, a work-in-progress (SPWIP sub-fund or WIP) account must be set up. The source of a SPWIP sub-fund account is a sponsored project fund (53) account and will be administered by Sponsored Programs. The source of a WIP account is any other university fund account and will be administered by the Asset Processor in Business and Financial Services.

a. Departments will need to submit a request to set up a Work-in-Progress account. For all sponsored project fund accounts, a SP-11 form, found on the Sponsored Programs website, should be completed and submitted to Sponsored Programs in order from them to set up an 88 SPWIP sub-fund account. For all other accounts, an 89 Account Create document should be submitted. The project start and end date, estimated budget, and funding account need to be provided. Once approved, the department can set up a subaccount if multiple projects are on the same funding account. The Business and Financial Asset Processor will then handle prorating for the 89 WIP account.

b. If the fabrication will be capitalized in the end, monthly AJV entries (by either the Office of Sponsored Programs or the Asset Processor in Business and Financial Services) will be created that will book the expenses to 1823. For 89 WIP accounts the expenses will be moved to 7720000-1823 and offset the expenses that occur in the 89. Non-capital fabrications or deliverables do not prorate to 1823.

c. When a capital fabrication is completed, the Asset Processor in Business and Financial Services will move the accumulated expenses in 1823 to the appropriate 8xxx asset object code using a Kuali Distribution of Income and Expense (DI) document. This will also generate the 18xx financial object code for the asset. For all 53 funds, OSP will provide the accumulated amount to the department and the department will need to submit a Kuali Distribution of Income and Expense (DI) document to move the final cost from 53xxxxx-6xxx to 53xxxxx-8xxx and create the capital asset. If the asset does not meet capitalization criteria or is a deliverable, the costs will be moved to an appropriate expense object code.

4. **Costs.** There are restrictions on the costs that can and cannot be charged to a SPWIP sub-fund account or WIP.

Costs that **may** be charged to a SPWIP sub-fund account or WIP include:

a. Materials and supplies needed to fabricate equipment or models,
b. software purchased as part of the implementation or development,
c. services needed to fabricate equipment, models or develop software,
d. salaries of technicians performing the actual fabrication or programming development, and
e. any other costs that can be specifically identified as directly related to the equipment fabrication.

Costs that **may not** be charged to a SPWIP sub-fund account or WIP include:

a. Salaries of principal investigators or administrative personnel (project managers and other managers). Salaries should be recorded in the funding, or source account,
b. travel expenses,
c. indirect costs (charged to funding source if applicable),
d. salaries of clerical support staff,
e. facilities rental
f. capital equipment (stand-alone items over $5,000 that do not lose their identity through incorporation into a more complex unit), and
g. any other costs that cannot be specifically identified as directly related to the equipment or model (i.e.: postage).

B. **Deliverables:** A deliverable is an item of equipment or scientific instrument created by CSU personnel, usually in connection with a grant or contract funding, in which CSU will be releasing the fabricated asset to the requestor upon its completion. Deliverables are subject to F&A costs unless either of the following conditions exists:
   1. The deliverable is space hardware (major spacecraft subsystems and scientific instruments carried on space missions), whether purchased or fabricated, that otherwise meets capital equipment or capital model criteria
   2. The deliverable meets capital equipment or capital model criteria and is installed in a facility to which CSU faculty will have access to the instrument for research purposes

C. **Non-Capital Models:** Models that last less than one year are recorded as an operating expense and are subject to F&A costs.

D. **Betterments:** Betterments will be capitalized according to the Business Rules for Modify Existing.

E. **Internally Developed Software:** See FPI 4-11.

F. **Internally Generated Intangible Assets:** See FPI 4-12.

G. **Construction:** Contact the Financial Reporting and Analysis (FRA) Plant Fund Accountant in Business and Financial Services.

H. **Telecommunications:** Contact the Financial Reporting and Analysis (FRA) Plant Fund Accountant in Business and Financial Services.

7. **Reference and Cross-References:**

Financial Reporting and Analysis (FRA) website: [http://busfin.colostate.edu/Depts/FRA.aspx](http://busfin.colostate.edu/Depts/FRA.aspx)

Property Management website: [http://busfin.colostate.edu/Depts/PropMgt.aspx](http://busfin.colostate.edu/Depts/PropMgt.aspx)

OMB Circulars A110 and A-21 relocated to 2 CFR Part 220 of the Uniform Guidance are located at: [http://www.whitehouse.gov/omb/circulars_default/](http://www.whitehouse.gov/omb/circulars_default/) (a) Recipients and sub-recipients that are institutions of higher education or other non-profit organizations (including hospitals) shall be subject to the audit requirements contained in the Single Audit Act Amendments of 1996 (31 U.S.C. 7501–7507)

Office of Sponsored Programs website: [https://vprnet.research.colostate.edu/OSP/](https://vprnet.research.colostate.edu/OSP/)


GASB Statement No. 51: [http://www.gasb.org](http://www.gasb.org)
8. **Forms and Tools:**

For detailed procedures contact Business and Financial Services

http://busfin.colostate.edu/Resources/Guides_Manuals.aspx

Property Management Agency Account Request form

http://busfin.colostate.edu/Resources/Forms.aspx (Under Accounting Misc. tab)

Sponsored Programs SP-11 form