

# BYU Dining Services

## Standard Operating Procedures

### BP0016: Material Requirements Planning (MRP)

Business Process ID: [BP0016](#)  
 SOP Collection: [Eatec SOPs](#)  
 Last Updated: August 28, 2024  
 URL: [/policy/eatec/mrp](#)

SOP Owner: Douglas Walker  
 Accountable Group: Dining Accounting  
 Collaborative Business Process

#### Purpose

The purpose of Material Requirements planning is to designate guidelines that allow each area, as they choose, to create specialized shopping lists to fulfil inventory requirements based on past Inventory Activity, Sales Plans, Production Plans, Cycle Plans, Sales Order activity, or Quick Order activity. This SOP will provide adequate instruction to ensure efficient use across different areas of BYU Dining Services

#### Responsibilities

| Area Responsibilities  | Centralized Responsibilities   |
|--|--|
| <ul style="list-style-type: none"> <li>• Creating Material requirements plans and drafting new shopping lists</li> <li>• Instructing others in their area on how to utilize their area shopping lists</li> <li>• Managing their MRP's and shopping lists (Deactivating MRP's and clearing saved shopping lists)</li> </ul> | <p><b><u>Dining Accounting</u></b><br/> <b>Doug Walker (Dining Systems Coordinator):</b></p> <ul style="list-style-type: none"> <li>• Ensuring that MRP's are in line with sop's and being utilized as intended</li> <li>• Providing additional instruction or training as needed</li> <li>• Resolving area conflicts or concerns between MRP issues.</li> </ul> |

#### SOP User Guide

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Definitions

**MRP title:** a required field to label your MRP to find later, the name must follow the format outlined in the “Naming an MRP title”

**Period:** a quick way to select a start and end date for the duration of time you would like to load your items (ex: today, this week, this month, this year)

**Start/End Date:** A customized start and end date selected by clicking the calendar icon.

**Formula:** Either Daily total or Period total

**Location:** The selected location to filter the inventory activity that you would like to include

**Supply Location:** The selected supply location to filter the inventory activity that you would like to include

**Substitute FG Items:** A toggle switch that enables Finished Goods to be substituted for non-FG items.

**Include:** This section includes a list of checkboxes to determine which types of inventory activity you would like to utilize to pull up your item list. (includes: Sales depletion, Spoilage/Loss, Production, Variance, Purchase, Transfers, Requisitions, Open Requisitions only)

**Expand Products:** A toggle switch to expand your products into their respective inventory item makeups.

**Load Sales Plan/Load Production Plan:** The button to populate the sales plan list based on the start and end date criteria specified.

**Order Type:** Pulls up a list of event types to select

**Order Status:** Allows the filtering of possible status (Definite, Depleted, finalized, invoiced, Tentative)

**Quick Orders:** A checkbox that allows to pull up quick orders instead of sales.

**Explode Production Items (Default):** This checkbox expands items produced (used in the production module) into their respective ingredients. (Suggested to be only used by those pulling up production items)

**Round quantities up (Default):** rounds all quantities up to nearest whole number when pulling into the list

**Add Waste Factor:** Considers the waste factor of an item and adjusts quantity accordingly

**Exclude Zero Items (Default):** Excludes items not needed (things with a 0 in quantity required)

**Exclude Selected Group:** Excludes the filters below rather than includes it.

**Consider Quantity on Order:** Excludes the items on the list that already have enough quantity on order to satisfy the quantity required, and adjusts the quantity required based on quantity on order.

**Consider Quantity on Hand:** Excludes the items on the list that already have enough quantity on hand to satisfy the quantity required, and adjusts the quantity required based on quantity on hand.

**Drop Production Items (Default):** Removes all items that are “production items” meaning pulled into the shopping list from production activity.

**Consider Quantity on Requisition:** Excludes the items on the list that already have enough quantity on Requisition to satisfy the quantity required, and adjusts the quantity required based on quantity on Requisition.

## Creating New Material Requirement Plans

### 1. Navigate to MRP

- Click Inventory Management -> MRP
- You will see the list of all MRP's as well as a 'Create New' button in the top right.

### 2. Specify MRP Details

- An MRP title is required. There is no set method to name as MRP, however it is recommended to add the name of the location using the MRP to the title. Each area should determine naming that works for it so MRPs can be easily searched for after they are created.
- Additionally, the description field can be used to describe what the MRP is being used for.

### 3. Specify Activity used to create the MRP

- There are 5 activities that can be selected to load items: Inventory Activity, Sales Plans, Production Plans, Cycle Plans, Sales Order activity, or Quick Order activity. The MRP page defaults to Inventory Activity
- See each section below for how to use each of the activities to load an item list

### 4. Finalize Item List

- Once products are added to an item list, the list can be edited by removing products, expanding products, and scaling quantities
  - **[Removing items]** After populating your MRP Item List you can delete out the items you don't want to incorporate in your shopping list by clicking the checkboxes and then the garbage can icon.
  - **[Expanding Items]** You can choose to expand items (if they are products) to pull up the ingredient makeups in the item list rather than the products.
  - **[Scaling quantities]** After selecting the items you desire you can click the scaling icon (between the garbage can and shopping cart) to then scale by either multiply by, makes, or scale by (%), as well as round up.

### 5. Create MRP and Shopping Lists

- Once the item list is finalized, the MRP can be saved, and a shopping list can be created if wanted
- For more information on how to create a shopping list, see instructions below

## Inventory Activity

### 1. Specify Inventory Activity Detail

- You must specify a date range to pull inventory activity from (Utilize either the period or custom date range with start and end dates.
- Specify the Formula you will use (refer to definition on what this is)
- Specify Location and (opt.) supply location filters as needed

### 2. Specify What Types of Activity to Include

- Click on the various modules under the “include” section depending on how you want to pull up inventory activity. **(At least one of these must be selected to pull up the item list.)**

### 3. Load Items to a List

- Click on the ‘Load Items’ button in the top right corner.

## Sales Plan/ Production/ Cycle Plan

### 1. Choose Plan Dates

- Specify the period or the custom start and end date range
  - Please note that when selecting dates, you can select dates within plans. For example, if you had a cycle plan from July 1-7, you can select July 1-3 and it will only load those 3 days from the July 1-7 cycle plan

### 2. Load the Sales Plan

- Click Load Sales plan, to load the sales plans that meet the period criteria.
- Select your sales plan of choice from the list.
- Toggle the Expand products if you choose to expand your products into the respective ingredients.

## Sales

### 1. Specify Sales Details

- You must specify a date range to pull sales data from (Utilize either the period or custom date range with start and end dates.
- Specify the Location as needed

### 2. Specify Order Details

- Specify the order type (opt.) and Order status
- Click the quick orders checkbox to populate quick orders instead of other sales data.

### 3. Load Sales

- Click ‘Load Items’ at the top right to load the item list.

## Viewing Created MRPs

After an MRP is created users can select the following actions:

- **[Analysis]:** Interactive tabs featuring the following tabs. (Items must be selected by clicking on the boxes to utilize this feature)
  - Item list which you can expand or view item information
  - Shopping Cart: create a shopping list or view an already saved shopping list of items
  - Engineering: to view sales data such as costs, margin, revenues, and profit group for each applicable product sold.

- **[Edit]:** allows you to open the entire MRP and edit the details as desired. (View “Editing your MRP Item list” to see possible functionality)
- **[Deactivate]:** This button effectually “deactivates” the MRP (which hides it from view unless toggling the “show all” button on the main table to be reactivated later as desired.
- **[New Shopping List]:** Creates a new shopping list with the selected items (Items must be selected by clicking on the boxes to utilize this feature)
- **[Saved Shopping List]:** Pulls up the list of saved shopping list for the MRP selected.
- **[Composition]** (paper icon for each item row): Allows you to view the makeup for each item or product (Origin of data whether it’s a cycle plan, sales history, inventory activity, etc.)

## Shopping Lists

1. Select ‘New Shopping List’
  - Click the button at the top middle called ‘New Shopping List’
2. Select Filters
  - Select the various filters that you want for the shopping list from Explode Production Items, Round Quantities Up, Exclude Zero Items, Exclude Selected Group, Consider Quantity on Order, Consider Quantity on Hand, Drop Production Items, Consider Quantity on Requisition
  - Do not use Add Waste Factor
3. Select Additional Field Filters and Apply
  - Location (Required): Specify the location you would like to compare your quantities to.
  - Inventory Types
  - Classes
  - Packages
  - Group By
  - Once all filters are selected, select ‘Apply’
4. Name, Save, and Paste Shopping List
  - After all filters are applied, name the shopping list
    - The input name of the shopping list should be similar to the MRP name
  - Save the shopping list
  - Click the carrot symbol (>) next to paste into requisition to select how you would like to utilize the filtered shopping list
    - Paste into Requisition
    - Paste into Purchase Order
    - Paste into receiving
    - Paste into Purchase Request
  - After clicking one of the above 4 options then proceed with the SOP outlined for the function that you clicked.

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# SOP Approval: MRP

Final Audit Report

2024-09-04

|                 |  |
|-----------------|--|
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