Finance Syllabus

The *Finance* knowledge area deals with the planning, development, establishment, analysis, and assessment of financial management processes for an organization’s capital, budget, accounting, and related reporting systems. This knowledge area is 10 percent of the exam and includes 20 questions taken from the following 10 sub-areas. While there might be simple calculations on the exam, you should not need, nor are you permitted to use, a calculator.

1. **Knowledge of basic accounting principles**
   - Financial statements and their importance
   - GAAP and the GAAP-setting process
   - Accounting concepts
   - Accounting methods
   - Financial statements
     - Statement of Operations or Income Statement
     - Balance Sheet
     - Statement of Changes in Net Assets
     - Statement of Cash Flows
2. Knowledge of financial management and financial analysis principles

3. Knowledge of operating budget principles

4. Knowledge of capital budget principles

5. Knowledge of reimbursement methodologies and ramifications

6. Knowledge of fundamental productivity measures

7. Knowledge of financial controls and auditing principles

8. Knowledge of capital funding sources

9. Knowledge of revenue generation

10. Knowledge of asset management
Financial statements and their importance

- Financial accounting identifies, measures, records, and communicates, in dollar terms, the economic events and status of an organization.
- Financial statements summarize and communicate an organization’s financial status to interested stakeholders, both outside and inside the organization.
- Outside stakeholders include investors (both owners and creditors) and inside stakeholders include boards and managers.
- *What are some of the uses of this information?*
GAAP and GAAP-setting process

- Securities & Exchange Commission (SEC)
- Financial Accounting Standards Board (FASB)
- American Institute of Certified Public Accountants (AICPA)
  - Industry Committees
- Healthcare Financial Management Association
  - Principles & Practices Board
    - Statements
    - Issue Analyses
- What are some problems with the GAAP-setting process?
GAAP and GAAP-setting process

- External audit--the final step in assuring the quality of the financial statements.
  - Auditor’s opinions
    - Unqualified opinion
    - Qualified opinion
    - Adverse opinion
- What is the purpose of the auditor’s opinion?
Accounting concepts

• Accounting entity
• Going concern
• Accounting period
• Objectivity and reliability
• Monetary unit
• Relevance
• Full Disclosure
• Materiality
• Conservatism
• Consistency and Comparability
Accounting methods

• Cash accounting--economic events are recognized when the financial transaction takes place.
  Revenue is recognized when it is received
  Expenses are recognized when they are paid
• Accrual accounting--economic events are recognized when they occur.
  Revenue is recognized when it is earned
  Expenses are recognized when they are incurred
• What are the advantages of both methods of accounting?
## Statement of Operations

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Revenues</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross patient services revenues (non-GAAP)</td>
<td>$9,490</td>
<td>$8,870</td>
</tr>
<tr>
<td>Less deductions from revenues (non-GAAP)</td>
<td>890</td>
<td>780</td>
</tr>
<tr>
<td>Net patient services revenues</td>
<td>8,600</td>
<td>8,090</td>
</tr>
<tr>
<td>Premium revenues</td>
<td>xxx</td>
<td>xxx</td>
</tr>
<tr>
<td>Other operating revenues</td>
<td>633</td>
<td>519</td>
</tr>
<tr>
<td><strong>Total operating revenues</strong></td>
<td>9,233</td>
<td>8,609</td>
</tr>
</tbody>
</table>
### Statement of Operations

<table>
<thead>
<tr>
<th>Operating Expenses</th>
<th>20X5</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and wages</td>
<td>5,678</td>
<td>5,497</td>
</tr>
<tr>
<td>Supplies</td>
<td>850</td>
<td>823</td>
</tr>
<tr>
<td>Utilities</td>
<td>576</td>
<td>558</td>
</tr>
<tr>
<td>Insurance</td>
<td>46</td>
<td>44</td>
</tr>
<tr>
<td>Depreciation</td>
<td>173</td>
<td>168</td>
</tr>
<tr>
<td>Interest</td>
<td>146</td>
<td>142</td>
</tr>
<tr>
<td>Bad debts</td>
<td>375</td>
<td>363</td>
</tr>
<tr>
<td>Other operating expenses</td>
<td>1,299</td>
<td>1,257</td>
</tr>
<tr>
<td><strong>Total operating expenses</strong></td>
<td>9,143</td>
<td>8,852</td>
</tr>
</tbody>
</table>
## Statement of Operations

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating income</td>
<td>90</td>
<td>27</td>
</tr>
<tr>
<td>Nonoperating income</td>
<td>195</td>
<td>154</td>
</tr>
<tr>
<td>Excess of revenues over expenses</td>
<td>$ 285</td>
<td>$ 181</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in net assets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted</td>
<td>$ 285</td>
<td>$ 200</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Permanently restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total changes in net assets</strong></td>
<td>$ 285</td>
<td>$ 200</td>
</tr>
</tbody>
</table>
Notes to the Statement of Operations

Charity care policy and the amount of charity care provided, based on charges, costs, or volumes, must be included.

Contractual allowances do not need to be itemized; however, major third party agreements should be identified.
Statement of Operations

• What is the purpose of the statement of operations?
• What is the difference between gross patient service revenue and net patient service revenue?
• Describe how the following types of revenue are reported on the statement of operations:
  Discounts from charges
  Charity care
  Bad debt
## Balance Sheet

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$ 124</td>
<td>$ 280</td>
</tr>
<tr>
<td>Temporary investments</td>
<td>45</td>
<td>80</td>
</tr>
<tr>
<td>Receivables, net</td>
<td>1,536</td>
<td>1,340</td>
</tr>
<tr>
<td>Inventory</td>
<td>75</td>
<td>140</td>
</tr>
<tr>
<td>Prepaid expenses</td>
<td>32</td>
<td>40</td>
</tr>
<tr>
<td><strong>Total current assets</strong></td>
<td>1,912</td>
<td>1,830</td>
</tr>
<tr>
<td><strong>Long-term investments</strong></td>
<td>1,010</td>
<td>600</td>
</tr>
<tr>
<td><strong>Plant and equipment</strong></td>
<td>6,980</td>
<td>6,580</td>
</tr>
<tr>
<td><strong>Less accumulated depreciation</strong></td>
<td>1,730</td>
<td>1,660</td>
</tr>
<tr>
<td><strong>Plant and equipment, net</strong></td>
<td>5,250</td>
<td>4,920</td>
</tr>
<tr>
<td><strong>Total assets</strong></td>
<td>$ 8,172</td>
<td>$ 7,350</td>
</tr>
</tbody>
</table>
## Balance Sheet

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
<th>20X4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Liabilities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts payable</td>
<td>$ 302</td>
<td>$ 370</td>
</tr>
<tr>
<td>Accrued expenses payable</td>
<td>208</td>
<td>220</td>
</tr>
<tr>
<td>Deferred revenues</td>
<td>77</td>
<td>60</td>
</tr>
<tr>
<td><strong>Total current liabilities</strong></td>
<td>587</td>
<td>650</td>
</tr>
<tr>
<td>Long-term liabilities</td>
<td>3,000</td>
<td>2,400</td>
</tr>
<tr>
<td><strong>Total liabilities</strong></td>
<td>3,587</td>
<td>3,050</td>
</tr>
<tr>
<td><strong>Net assets</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrestricted</td>
<td>3,285</td>
<td>3,000</td>
</tr>
<tr>
<td>Temporarily restricted</td>
<td>700</td>
<td>700</td>
</tr>
<tr>
<td>Permanently restricted</td>
<td>600</td>
<td>600</td>
</tr>
<tr>
<td><strong>Total net assets</strong></td>
<td>4,585</td>
<td>4,300</td>
</tr>
<tr>
<td><strong>Total liabilities and net assets</strong></td>
<td>$8,172</td>
<td>$7,350</td>
</tr>
</tbody>
</table>
Balance Sheet

- What is the purpose of the balance sheet?
- What are the three major sections of the balance sheet?
- What is accumulated depreciation and how does it relate to the statement of operations?
- How does the balance sheet relate to the statement of operations?
## Statement of Cash Flows

<table>
<thead>
<tr>
<th>20X5</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from operating activities</strong></td>
<td></td>
</tr>
<tr>
<td>Cash received from patient sources</td>
<td>$ 8,404</td>
</tr>
<tr>
<td>Cash received from other operating sources</td>
<td>650</td>
</tr>
<tr>
<td>Cash received from nonoperating sources</td>
<td>180</td>
</tr>
<tr>
<td>Cash payments to employees</td>
<td>(4,500)</td>
</tr>
<tr>
<td>Cash payments to suppliers</td>
<td>(4,203)</td>
</tr>
<tr>
<td><strong>Net cash flow from operating activities</strong></td>
<td><strong>$ 531</strong></td>
</tr>
</tbody>
</table>
## Statement of Cash Flows

<table>
<thead>
<tr>
<th></th>
<th>20X5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash flows from investing activities</strong></td>
<td></td>
</tr>
<tr>
<td>Cash payments for purchase of plant</td>
<td>(940)</td>
</tr>
<tr>
<td>Cash payments for long-term investments</td>
<td>(450)</td>
</tr>
<tr>
<td>Proceeds from sales of plant assets</td>
<td>54</td>
</tr>
<tr>
<td>Proceeds from sale of long-term invest.</td>
<td>49</td>
</tr>
<tr>
<td><strong>Net cash flow from investing activities</strong></td>
<td>(1,287)</td>
</tr>
<tr>
<td><strong>Cash flows from financing activities</strong></td>
<td></td>
</tr>
<tr>
<td>Proceeds from issuance of 6% bonds</td>
<td>3,000</td>
</tr>
<tr>
<td>Principal payments on long-term debt</td>
<td>(400)</td>
</tr>
<tr>
<td>Cash payments to retire 7% bonds</td>
<td>(2,000)</td>
</tr>
<tr>
<td><strong>Net cash flow from financing activities</strong></td>
<td>600</td>
</tr>
<tr>
<td><strong>Net increase/(decrease) in cash</strong></td>
<td>$ (156)</td>
</tr>
</tbody>
</table>
Statement of Cash Flows

• How does the statement of cash flows differ from the statement of operations?
• What is the most important piece of information on the statement of cash flows?
Financial Analysis

1. Establish the facts in the organization.
2. Compare the facts over time (horizontal or trend) and to facts in other similar organizations (comparative).
3. Use perspective and judgment to make decisions.

Financial Analysis

- Liquidity ratios measure an organization’s ability to pay short-term debt:
  - Current ratio
  - Average collection period
  - Days cash-on-hand, short-term sources
  - Days cash-on-hand, all sources
  - Average payment period
Financial Analysis

• Profitability ratios measure an organization’s ability to exist and grow:
  • Operating margin
  • Total margin
  • Return on net assets
Financial Analysis

• Capital structure ratios measure the organization’s long-term liquidity:
  • Debt ratio (equity financing ratio)
  • Long-term debt-to-equity (net assets ratio)
  • Debt service coverage ratio
Financial Analysis

- Asset efficiency (management) ratios measure an organization’s ability to be efficient:
  - Total asset turnover ratio
  - Age of plant ratio
  - Fixed asset turnover ratio
  - Current asset turnover ratio
  - Inventory turnover ratio
Financial Analysis

- Operating indicators measure variables not found on the financial statements in an attempt to further explain an organization’s financial performance:
  - Average length of stay
  - Occupancy rate
Financial Management

- Managerial accounting
- Cost behaviors
- Profit analysis
- Operating budgeting
- Capital budgeting
- Reimbursement techniques
- Productivity measures
Financial Management

• Managerial accounting
  • Focuses on sub-unit
  • Relevant to internal decision-makers
Financial Management

• Cost behaviors
  • Cost classifications
    • relationship to volume
      • fixed costs
      • variable costs
    • relationship to unit (department)
  • Cost behavior, or underlying cost structure, is the relationship between cost and activity (see Gapenski, *Healthcare Finance*, *cost behaviors*)
• Profit analysis
  • Revenue can be added to the cost behavior model in two different ways:

  • Pro Forma Profit and Loss Statement

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues ($100 x 75,000)</td>
<td>$7,500,000</td>
</tr>
<tr>
<td>Total variable costs ($28.18 x 75,000)</td>
<td>2,113,500</td>
</tr>
<tr>
<td>Total contribution margin ($71.82 x 75,000)</td>
<td>$5,386,500</td>
</tr>
<tr>
<td>Fixed costs</td>
<td>4,967,462</td>
</tr>
<tr>
<td>Profit</td>
<td>$419,038</td>
</tr>
</tbody>
</table>
Financial Management

- Profit analysis
  - Revenue can be added to the cost behavior model in two different ways:

  - Breakeven analysis

  \[
  TR - TVC - FC = \text{Profit}
  \]

  where \( TR = (\text{charge} \times \text{volume}) \)
  where \( TVC = (\text{variable cost per unit} \times \text{volume}) \)

  \[
  ($100 \times 75,000) - ($28.18 \times 75,000) - 4,976,462 = 419,038
  \]
Operating Budget Principles

- Strategic Plan--a ten year look at the future by the board and executive management (i.e., do you want to be in the healthcare business and if so, what will the business look like?).
  1. Validate mission
  2. Assess the external environment
  3. Assess the internal environment
  4. Formulate the vision
  5. Establish strategic thrusts
  6. Identify critical success factors
  7. Develop core objectives
  8. Develop strategic financial plan
Operating Budget Principles

• Strategic Financial Plan--a five year look at the future that forces executive management to identify the resources that will be necessary to accomplish the strategic plan (see Kaufman, Best Practice Financial Management)

  How much cash should the organization have?
  How much debt can the organization afford?
  What are the margin targets necessary to meet the cash and debt levels desired above?
  What is the required level of operating change to meet margin targets?
  What are the organization’s strategic capital requirements?
  What will be the source(s) of capital funding?
Operating Budget Principles

- Operating Plan--the process of translating the strategic plan into next year’s objectives.
  
  9. Develop secondary or departmental objectives
  10. Develop policies, procedures, methods, and rules that support the departmental objectives
Operating Budget Principles

- Budget--the process of converting the operating plan into monetary terms.

Types of budgets
- Management approach--top down versus bottom up
- Design characteristics
  - Incremental versus zero-based
  - Comprehensive versus limited-in-scope
  - Fixed versus flexible
  - Discreet versus continuous
Operating Budget Principles

- Budget--the process of converting the operating plan into monetary terms.
  11. Project volumes
  12. Convert volumes to revenues
  13. Concert volumes to expense requirements
  14. Adjust revenues and expenses as necessary
Capital Budgeting Principles

- Capital Budgeting--the process of identifying and prioritizing capital expenditures as defined by the organization.

Types of capital budgets
- Replacement as scheduled, for increased efficiency, for improved quality/safety.
- New ventures for expanded services, reduced operating expenses, improved quality/safety.
Capital Budgeting Principles

- Capital Budgeting--the process of identifying and prioritizing capital expenditures as defined by the organization.

15. Identify and prioritize requests
16. Project cash flows
17. Perform financial analysis
18. Identify nonfinancial benefits
19. Evaluate benefits and make decisions
Reimbursement Techniques

- Third-party payers are agents of the patient (the first party) who pay all or a portion of the bill to the providers (the second party).
  
  Direct service plans
  Commercial indemnity plans
  Medicare and Medicaid
  Managed care plans
    - Managed indemnity
    - Service plans
    - PPOs
    - Point-of-Service HMOs
    - Open-panel HMOs
    - Closed-panel HMOs
Reimbursement Techniques

- Third-party payers use several methods of payment to providers that are often classified as to the amount of financial risk assumed by the provider.
  
  Charges
  Charges minus a discount
  Cost plus a percentage for growth
  Cost
  Per diem
  Per diagnosis
  Capitation
Reimbursement Techniques

- Third-party payers use several methods of payment to providers that are often classified as to the amount of financial risk assumed by the provider.
  - Bad debt
  - Charity care
  - Pay-for-performance (of lack thereof)
- The future?
  - Direct contracting
  - Consumer-driven healthcare
  - National health insurance
Productivity Measures

• see Berger’s *The Power of Clinical and Financial Metrics*.
  Labor compensation as a percent of net revenue
  Overtime as a percent
  Total paid hours/adjusted patient day (or other unit of service)
  Total labor compensation/adjusted patient day (or other unit of service)
  Average hourly rate
Financial Controls and Auditing Principles

• Internal Controls

The backbone of good internal controls is generally thought of in terms of policies and procedures over the recording, processing, and reporting of financial data.

Statement on auditing standards (SAS) no. 55, considerations of the internal control structure in a financial statement audit, indicates that an entity’s internal control structure consists of the following three elements:

• Control environment
• Accounting system, and
• Control procedures
Financial Controls and Auditing Principles

• The Control Environment
  Several factors can greatly impact, both positively and negatively, an organization’s internal controls
  • Management or governing board’s philosophy and operating style
  • The organizational structure
  • The functioning of the governing board and its committees, particularly the audit committee
  • Methods of assigning authority and responsibility
  • Management or governing board’s control methods for monitoring and following up on performance
  • Personnel policies and practices
  • External influences that effect the organizations operations and practices
Financial Controls and Auditing Principles

• The Accounting System

Effective Accounting Systems Will:
  • Identify and record all valid transactions.
  • Classify financial transactions on a timely basis.
  • Value these financial transactions in an appropriate manner.
  • Identify the time period in which these financial transactions occurred.
  • Adequately disclose these transactions in the financial statements.
Financial Controls and Auditing Principles

• The Control Procedures

  Control procedures are policies and procedures, in addition to the control environment and accounting system, that have been established to provide reasonable assurance that specific organizational objectives will be achieved.
  
  • Proper authorization of transactions.
  • Adequate segregation of duties.
  • Providing a documented audit trail.
  • Safeguarding of assets.
  • Independent review of other procedures performed.
Financial Controls and Auditing Principles

- AICPA Accounting & Audit Guide
  Health Care Organizations
  1990 Edition—statement of operations
  1996 Edition—consolidated balance sheet
  2006 Task Force working on new edition
  - Revenue recognition criteria including accounting and disclosures for charity care and other uncompensated care
Capital Funding Sources

• Financing Capital Expenditures
  There are several ways to finance the acquisition of capital equipment.
    • In almost all cases the financing may be for new or replacement
      – Building, or
      – Moveable equipment
  Capital may be financed through
    • Funded depreciation
    • Philanthropy
    • Debt
    • Taxable leases
    • Non-taxable leases (not available to for-profit entities)
    • Operating surpluses
    • Equity (for-profit entities only)
    • Taxes (governmental entities only)
Revenue Generation

- Accounts receivable is a function of both the production cycle and the payment cycle.
Revenue Generation

- Production Cycle--Pre-care
  - Obtain demographics
  - Obtain insurance and verify coverage
  - Obtain authorizations
  - Collect deductibles and co-pays
Revenue Generation

• Production Cycle--Care
  Record charges
  Maintain medical record
  Review utilization
Revenue Generation

- Production Cycle--Care Completed
  - Transfer medical record
  - Analyze medical record
  - Abstract medical record
  - Code medical record
  - Transcribe dictation
  - Obtain physician attestation
Revenue Generation

• Payment Cycle
  Print bill
  Submit bill
  Follow-up on bill
  Collect bill
  Collect bill
  Bill resolution
Revenue Generation

- AR performance varies significantly between organizations
- Costs associated with AR can be significant

- *How do we measure AR performance?*
- *Why does it vary between organizations?*
- *What can we do to improve AR performance?*
Asset Management

• Current Asset Management
  Cash management
  Short-term investment management
  Accounts receivable management
  Inventory management including supply-chain

• Long-Term Asset Management
  Facilities management
References and Readings for Finance


