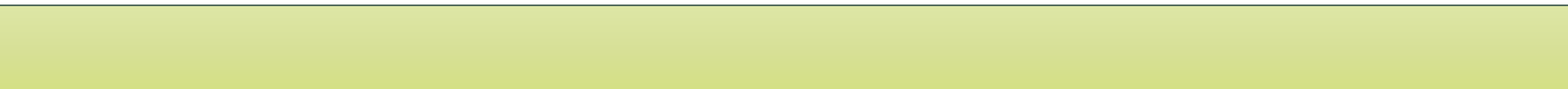# ACS-1803
Introduction to Information Systems

Instructor: Trevor Nadeau

Functional Area Systems
Human Resource Systems

Lecture Outline 5 – Part 2

System Examples: Functional Area Info Systems

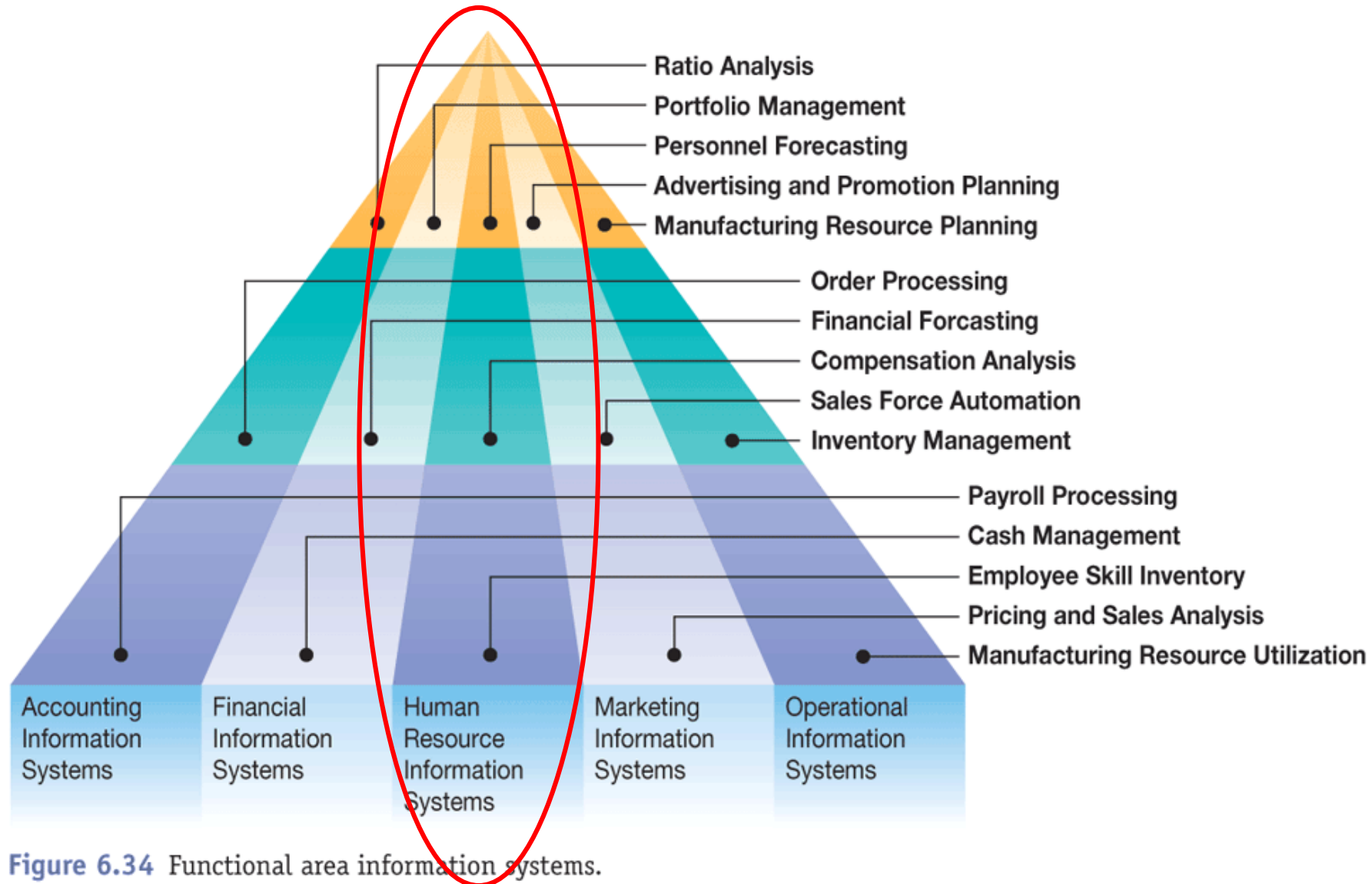| Functional Area	Information System	Examples of Typical Systems
Accounting and Finance	Systems used for managing, controlling, and auditing the financial resources of the organization	▌Inventory management ▌Accounts payable ▌Expense accounts ▌Cash management ▌Payroll processing
Human Resources	Systems used for managing, controlling, and auditing the human resources of the organization	▌Recruiting and hiring ▌Education and training ▌Benefits management ▌Employee termination ▌Workforce planning
Marketing	Systems used for managing new product development, distribution, pricing, promotional effectiveness, and sales forecasting of the products and services offered by the organization	▌Market research and analysis ▌New product development ▌Promotion and advertising ▌Pricing and sales analysis ▌Product location analysis
Production and Operations	Systems used for managing, controlling, and auditing the production and operations resources of the organization	▌Inventory management ▌Cost and quality tracking ▌Materials and resource planning ▌Customer service tracking ▌Customer problem tracking ▌Job costing ▌Resource utilization

2

Functional Area Information Systems

Figure 6.34 Functional area information systems.

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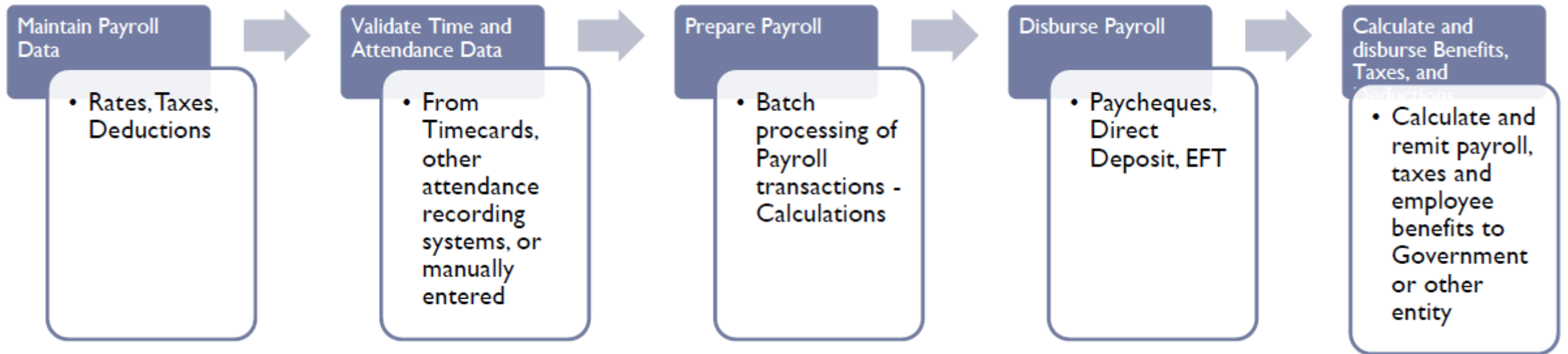# Human Resource Management Systems (HRMS)

- Combination of systems and processes that connect human resource management and information technology through human resource management software/hardware.
  - Managing payroll
  - Recruitment and onboarding
  - Gathering, storing, and accessing employee information
  - Keeping attendance records and tracking absenteeism
  - Performance evaluation
  - Benefits administration
  - Learning management
  - Employee self-service
  - Employee scheduling
  - Analytics and informed decision making

Operational Systems in HR

- Historically, **payroll** was the first
  - But, we consider it to be part of the AIS
    - Related to expenditure cycle
- **Employee information systems**
  - Maintain information on every employee for various reporting purposes
  - Employee profile: basic personal data, education, previous experience, employment history in org., preferred location for work ….
  - May contain <u>skills inventory</u> component
    - Employee's work experience, work preferences, test scores, interests, special skills
    - How could this be used

HR Transaction Processing

- Payroll:

Maintain Payroll Data	Validate Time and Attendance Data	Prepare Payroll	Disburse Payroll	Calculate and disburse Benefits, Taxes, and
• Rates, Taxes, Deductions	• From Timecards, other attendance recording systems, or manually entered	• Batch processing of Payroll transactions - Calculations	• Paycheques, Direct Deposit, EFT	• Calculate and remit payroll, taxes and employee benefits to Government or other entity

Operational Systems in HR

- **Attendance recording systems**
  - May use negative reporting (only when absent)
  - Include overtime credits etc.

- **Employee Scheduling Systems**
  - Can get complex with shift work (e.g, nurses)
  - Must adhere to union regulations

Operational Systems in HR

- **Performance Management Systems**
  - Collect and store textual data e.g., written comments of supervisor
  - Appraisal data can be filled out on special screens
  - Need careful documentation of employee performance and how performance was measured (e.g., for grievance hearings)
  - May have tactical components
    - *Which supervisors give high number of poor evals.*
    - *Which labour sources provide unacceptable workers*
  - Performance measures (no. of purchase orders processed per day) may be included

Tactical Systems in HR

- **Position control systems**
  - Keep data on each job position in the org.
    - E.g. task content
  - Can be useful for job redesign
    - Which job positions require data entry?
    - Which require statistical analysis
- **Recruiting systems**
  - Provide list of planned retirements
  - List skills, preferences of current employees
  - Analyze turnover rates among various classes of employees

Tactical Systems in HR

- **Compensation and benefit systems**
  - "cafeteria style benefits" for employees to choose from
  - Considerable data storage here
  - Tactical:
    - how much to increase compensation plans to attract high quality employees
    - What kind of benefits are different categories of employees choosing?
  - May be available on organizational intranet

Strategic Systems in HR

- **Long-term workforce planning**
  - What are the HR needs to meet organization's strategic plan for next 5-10 years?
  - Identify Current HR Requirements
  - Identify Critical Jobs
  - Identify Current and Future Workforce Gaps
  - Identify drivers of workforce composition
  - *Forecasting* supply and demand of required workforce
  - Formulate Plans
- **Labour negotiation support systems**
  - Must be timely and have ad hoc capacity
  - Assist in bargaining sessions with unions

HRMS Software

- HR systems store much more textual data than other functional systems

- There are specific HR systems for sale

- Use of HRMS is not as widespread in small to medium businesses

Human Resource Management System

Functional Area Systems – Human Resource Systems

End of Lecture 5 – Part 2