



Reference Document for:

Associate Portfolio Manager/Portfolio Manager Competencies

APMs and PMs are permitted to conduct RR activities. The RR competency profile also applies and should be referred to additionally.

Refer to Appendix 10 to review the APM/PM competency profile



CIRO · OCRI

Canadian Investment
Regulatory
Organization

Organisme canadien
de réglementation
des investissements



Associate Portfolio Manager/Portfolio Manager Competencies

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From a regulatory perspective, the competencies for a highly competent and compliant Associate Portfolio Manager (APM)/Portfolio Manager (PM) at a minimum include the following:

Regulatory Environment and Ethics	Page 4	Investment Policy	Page 9
1 Understand and apply the following as applicable: <ul style="list-style-type: none">I. Regulatory and operating environmentII. EthicsIII. Fiduciary dutyIV. Managed accountsV. Compliance and supervision		2 Understand and apply the following as applicable: <ul style="list-style-type: none">I. Investment policy statementII. Asset allocationIII. Transaction costs, taxation, and inflationIV. Trade strategy and execution	
Research and Analysis	Page 13	Portfolio Construction and Strategies	Page 18
3 Understand and apply the following as applicable: <ul style="list-style-type: none">I. ResearchII. Economic and industry analysisIII. Company and financial analysisIV. Technical/statistical analysisV. Financial technology (fintech)		4 Understand and apply the following as applicable: <ul style="list-style-type: none">I. Portfolio constructionII. Behavioural financeIII. Equity investments within portfoliosIV. Debt investments within portfoliosV. Other bond portfolio construction techniquesVI. Derivatives within portfoliosVII. Alternative investments within portfoliosVIII. Managed products within portfoliosIX. International investing	

**Portfolio Monitoring, Evaluation and Client Reporting****Page 28****5****Understand and apply the following as applicable:**

- I. Portfolio monitoring
- II. Evaluation of investment risk
- III. Portfolio performance evaluation
- IV. Client portfolio reporting

Servicing Institutions**Page 31****6****Understand and apply the following as applicable:**

- I. Institutional portfolio management
- II. Management of funds
- III. New investment products



1. Regulatory Environment and Ethics		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
I. Regulatory and operating environment	<ul style="list-style-type: none"> Regulatory requirements, including: <ul style="list-style-type: none"> Business conduct Trade conduct Know Your Client (KYC) Know Your Product (KYP) Conflicts of interest, including prohibited personal financial dealings with clients Disclosures to clients Differences between the role of APMs and PMs Anti-Money Laundering (AML) and Terrorist Financing legislation requirements Dealer and regulatory restrictions regarding external communication Investment management fees, fee structures and applicable guidelines for compensation Changes to the regulatory landscape, including: <ul style="list-style-type: none"> Fee-based account trends Online advice Organizational structure, key roles, and responsibilities of others in servicing a managed account client, including: <ul style="list-style-type: none"> Relationship managers Sub-advisors Fund managers Back office and head office functions Chief Investment Officer (CIO) Head of equities Head of fixed income Investment analysts 	<ul style="list-style-type: none"> Consider fundamental regulatory knowledge and industry information Keep up to date with industry trends and changes to regulatory requirements as it applies to discretionary managed business Exercise discretionary authority on managed accounts while abiding by regulatory requirements, keeping in mind the difference in the roles of APMs and PMs Identify the key internal employees and Approved Persons (APs) to support the role as a PM Build relationships with the different areas at the dealer Identify the difference between servicing retail clients compared to institutional clients Identify the key internal roles and how information flows to help foster investor protection Identify the different types of communications for clients and adhere to dealer's policies and procedures and best practices and regulatory rules and guidelines regarding social media and other external communication Adhere to investment mandates and regulatory requirements when dealing with various types of clients Consider regulatory trading requirements for various marketplaces, including exchanges and alternative trading systems (ATS)



1. Regulatory Environment and Ethics		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> ▪ Trade execution ▪ Sales and marketing ▪ Client service staff • Canadian Securities Administrators (CSA), provincial/territorial securities and derivatives regulators, including: <ul style="list-style-type: none"> ○ National Instruments, Multilateral Instruments (MI), National policies, Staff notices and Companion Policies (CP) ○ Provincial and territorial securities and derivatives legislation • Client privacy requirements, including: <ul style="list-style-type: none"> ○ Personal Information Protection and Electronic Documents Act (PIPEDA) requirements • Soft dollar arrangements • Role of Canadian Investor Protection Fund (CIPF) • Role of Office of the Superintendent of Financial Institutions (OSFI) • Types of communications with clients • Industry challenges • Corporate governance • Regulatory trading requirements for various marketplaces, including stock exchanges and alternative trading systems (ATS) 	
II. Ethics	<ul style="list-style-type: none"> • Importance of ethics • Ethical principles and prescribed standards of conduct • Individual values and awareness • Ethical dilemmas 	<ul style="list-style-type: none"> • Demonstrate behaviour that conforms to high standards of ethics and conduct • Apply critical thinking to identify and address ethical dilemmas and make ethical decisions



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SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> Framework for ethical decision-making Critical thinking skills Importance of independence and objectivity Unethical practices in securities and derivatives trading Written code of ethics and standards of conduct, including: <ul style="list-style-type: none"> Loyalty to clients Investment process and actions Trading Risk management, compliance, and support Performance reporting and valuation, and disclosures 	<ul style="list-style-type: none"> Apply high standards of ethics and conduct when dealing with clients and engaging in other professional activities, and promoting such behaviour with co-workers and employees Act with independence and objectivity Carry out professional responsibilities in a thoughtful and objective manner, free from any personal obligations, encumbrances, or biases, such as gifts or relationships that may influence judgement Escalate matters of non-compliance and unethical behaviour as appropriate
III. Fiduciary duty	<ul style="list-style-type: none"> Principles of fiduciary relationships, including: <ul style="list-style-type: none"> Relationship of trust Duty of care Duty of loyalty Duty of good faith Acting in the best interest of clients Management of conflicts of interest, including: <ul style="list-style-type: none"> Identify Address Disclose Avoid 	<ul style="list-style-type: none"> Uphold the principles of fiduciary relationships in all dealings with clients Build and foster a relationship of trust Act with prudence, independence and objectivity Act honestly and in good faith when dealing with clients Consider client's needs and circumstances, including those of vulnerable clients Act in the best interests of clients when carrying out fiduciary duties and addressing conflicts of interest Manage, identify and address material conflicts and potential conflicts in a fair, equitable and transparent manner Avoid any conflicts of interest that cannot be addressed in the best interest of the client



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SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
		<ul style="list-style-type: none"> Consider the dealer's policies and procedures in identifying, disclosing and avoiding material conflicts of interest
IV. Managed accounts	<ul style="list-style-type: none"> Dealer's policies and procedures regarding client information, new accounts, and updates to material client information Canadian Investment Regulatory Organization (CIRO) managed account requirements, including: <ul style="list-style-type: none"> Suitability Account appropriateness Opening a managed account Account approval Managed account agreement Supervision Managed account committee Managed account review Fair allocation of investments Relationship disclosure requirements Primary responsibility over clients and restrictions on delegation Confidentiality and privacy legislation requirements 	<ul style="list-style-type: none"> Develop a business and marketing plan to build and maintain a book of managed accounts within dealer and regulatory requirements Use effective communication skills and inform clients about the necessary disclosures and nature of the discretionary relationship and managed accounts Ensure team members, including APMs, use effective communication consistent with the regulatory requirements when dealing with clients Ensure that matters are delegated appropriately
V. Compliance and supervision	<ul style="list-style-type: none"> Key roles and information flow Role of the Supervisor of managed accounts Role of managed account committee Managed account review Compliance, including: <ul style="list-style-type: none"> Registration, approval and regulatory reporting 	<ul style="list-style-type: none"> Adhere to regulatory requirements and dealer's best practices for risk control, and securities and derivatives trading as it relates to portfolio management Escalate situations of non-compliance to the appropriate Supervisor or compliance staff, including Chief Compliance Officer (CCO)



1. Regulatory Environment and Ethics		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none">○ Sales and marketing○ Advertising guidelines○ Investment guidelines and restrictions● Best practices for risk control and securities and derivatives trading, including:<ul style="list-style-type: none">○ Performance measurement○ Signing authority matrix○ Employee personal trading practices○ Investment management agreement○ Investment guidelines and restrictions	



2. Investment Policy		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
I. Investment policy statement	<ul style="list-style-type: none"> • Scope, purpose, and details of an investment policy statement (IPS) • KYC and KYP requirements • Investment objectives <ul style="list-style-type: none"> ○ Return, including: <ul style="list-style-type: none"> ▪ Measuring the return objective ▪ Required return ▪ Benchmarks ▪ Retirement needs analysis ○ Risk, including: <ul style="list-style-type: none"> ▪ Client's willingness to take on risk ▪ Client's ability to take on risk ▪ Establishing a risk profile, including risk tolerance and risk capacity ▪ Defining a risk objective • Investment constraints and portfolio restrictions, including: <ul style="list-style-type: none"> ○ Time horizon ○ Liquidity requirements ○ Tax management ○ Legal and regulatory requirements ○ Diversity, equity and inclusion considerations ○ Environmental, social, and governance (ESG) considerations and other personal preferences or values of the client • Concentration and liquidity requirements • Leverage use and restrictions • Correlation, beta, and alpha • Multi-factor risk exposures • Asset mix categories 	<ul style="list-style-type: none"> • Formulate and draft a clear IPS, taking into consideration KYC, KYP and financial profile of a client • Ensure the IPS is tailored to the client and is suitable considering their investment objectives, constraints, and restrictions • Review the IPS with the client, use effective communication to explain the documented IPS, and make changes as necessary • Provide financial investment advice and recommendations to clients • Make investment decisions on managed accounts that are consistent with the IPS, including constraints and concentration limits and use of leverage • Ensure the IPS is kept current and updated periodically and considers any changes to client circumstances • Consider the limitations of the APM role before making changes to the portfolio • Ensure framework and tools for assessment and analysis are valid and empirically sound



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SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> Types of financial instruments and their benefits and risks Schedule and process for portfolio reviews, reporting investment performance and updating the IPS, as needed Risk management, monitoring the risk profile and reporting on portfolio risk Advisor and client agreement Role of sub-advisors, if any 	
II. Asset allocation	<ul style="list-style-type: none"> Strategic asset allocation, including: <ul style="list-style-type: none"> Mean-variance analysis Human capital state variable sensitivity analysis Equal-weighted vs. market-cap weighted Home country bias Portfolio allocation models Typical asset allocation composition considering factors such as age, employment characteristics, time diversification and ad hoc approach Dynamic asset allocation, including: <ul style="list-style-type: none"> Temporal rebalancing Weight-based rebalancing Tactical asset allocation, including: <ul style="list-style-type: none"> Value-based approach Cyclical approach The distinction between mechanical re-balancing and strategic re-balancing and when the APM needs pre-approval from the PM Risks and benefits of using an asset allocation strategy Application of various asset allocation frameworks Model portfolio development Key aspects in selecting a rebalancing strategy, including: 	<ul style="list-style-type: none"> Develop and recommend a strategic asset allocation and ongoing asset allocation plan for a client account Conduct portfolio rebalancing if necessary For an APM, obtain the necessary pre-approval from a PM before: <ul style="list-style-type: none"> Constructing an asset allocation and providing it to a client Providing a new or revised IPS or similar document that contains an asset allocation Selecting a model portfolio for a client Conducting rebalancing of a client's account that is not mechanical in nature



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	<ul style="list-style-type: none"> ○ Benefits of a rebalancing strategy ○ Explicit costs such as trading and tax ○ Implicit costs such as implementation costs 	
III. Transaction costs, taxation, and inflation	<ul style="list-style-type: none"> ● Impact of householding ● Transaction costs, including: <ul style="list-style-type: none"> ○ Management fees ○ Trailer fees ○ Commission ○ Trading expense ratio (TER) ● Tax treatments on different investment, including: <ul style="list-style-type: none"> ○ Interest income ○ Capital gains ○ Return of capital ○ Canadian source dividends ○ Foreign source income, dividends, and other types of distributions ● Inflation ● Portfolio management strategies to minimize tax, including: <ul style="list-style-type: none"> ○ Tax-loss harvesting ○ Crystallization ○ Reducing the yield of securities ○ Reducing the turnover of securities ○ Purchasing a put option ● Characteristics of tax efficient investments ● Efficiency ratios, including: 	<ul style="list-style-type: none"> ● Consider impact of householding and the appropriate transaction costs and fee structures in line with stated client agreements ● Consider inflation and tax implications and other impediments to wealth accumulation when putting together suitable client portfolios ● Assess the tax efficiency of investments using efficiency ratios ● Implement portfolio management strategies to minimize the tax burden for client accounts ● Implement fee structures in line with stated client agreements



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	<ul style="list-style-type: none"> ○ Capture ratio ○ Relative wealth measure ○ Morningstar tax cost ratio ● Inflation-sensitive assets ● Tax deferral plans 	
IV. Trade strategy and execution	<ul style="list-style-type: none"> ● Motivations to trade ● Types of trades ● Benchmarks for trade execution ● Trading and settlement procedures ● Bundled trades and fair allocation according to CIRO Rules ● Trading procedures ● Best execution requirements ● Mechanics of exchange and over-the-counter (OTC) market trading ● Trade cost measurement, including the different methodologies and benchmarks used for calculating implicit and explicit trading costs 	<ul style="list-style-type: none"> ● Consider the appropriate trading strategy and communicate as needed with the trade desk ● Consider trade cost measurements ● Consider best execution if/when responsible for executing the trade



3. Research and Analysis		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
I. Research	<ul style="list-style-type: none"> • Data collection • Sources of research, including: <ul style="list-style-type: none"> ○ Academic journals ○ Recommended lists ○ Internal research reports ○ Third-party research reports ○ Analyst reports ○ Offering documents and/or prospectus ○ Annual reports and financial documents ○ Continuous disclosure ○ Economic reports ○ Other data sources • Regulatory requirements for research reports 	<ul style="list-style-type: none"> • Consider various sources of available research and data to evaluate the economy, industry sector, and individual companies, as needed
II. Economic and industry analysis	<ul style="list-style-type: none"> • Macroeconomic analysis, including: <ul style="list-style-type: none"> ○ Macroeconomic factors that affect investor expectations and the price of securities ○ Economic principles that have an impact on capital markets and the needs of clients ○ Capital market expectations in the portfolio management process ○ Economic growth trend analysis ○ Major approach to economic forecasting ○ Business cycles and long and short-term expectations ○ Inflation and the business cycle ○ Causes and impacts of inflation, disinflation, and deflation on an economy ○ Implications of inflation for various investments 	<ul style="list-style-type: none"> • Perform economic and industry analysis to help determine individual security selection in a portfolio • Consider impact of economic indicators, trends, and forecasts on portfolio strategy • Consider economic principles that have an impact on capital markets and the needs of clients • Consider how industries can be classified and the impact on investment approach



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	<ul style="list-style-type: none"> ○ Effects of monetary and fiscal policy on business cycles and the economy ○ Key economic indicators ○ Cyclical trends ○ Secular trends ○ Economic forecasts ○ Consensus forecasts ○ Keynesian, monetarist, and supply-side theories ○ Theories of interest rate determination and how interest rates affect the economy ○ International trade, balance of payments and their impacts on the economy ○ Exchange rates and their impacts on the economy ○ Valuation techniques and models ○ Economic reports and other relevant sources of information, including the assumptions and valuation approach used ● Industry analysis and impact on a company's security valuation, including: <ul style="list-style-type: none"> ○ Industry classifications ○ Global industry classification system ○ Life cycle stages and their different growth rates and risks ○ Industry performance during different stages of the economic cycle ○ Differences in how companies are analysed and valued within the industry ○ Key industry characteristics 	



3. Research and Analysis		
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	<ul style="list-style-type: none"> Industry reports and other relevant sources of information, including the assumptions and valuation approach used 	
III. Company and financial analysis	<ul style="list-style-type: none"> Regulatory filings Other sources of information Factors involved in performing company analysis to determine whether a company represents a good investment Company reports and other relevant sources of information, including the assumptions and valuation approach used Takeover process and takeover legislation Insider bids and issuer bid regulations The rules for public company disclosure and statutory rights of shareholders Qualitative company analysis, including: <ul style="list-style-type: none"> Management and corporate governance Competitive advantage Business model Financial statement analysis, including: <ul style="list-style-type: none"> Income statements Balance sheets Cash flow statements Notes and auditor's report Intrinsic value Expected return Dividend discount model Discounted cash flow model Relative valuation models and ratios 	<ul style="list-style-type: none"> Perform company and financial statement analysis to help determine individual security selection in a portfolio Calculate the intrinsic value of a stock and determine if a stock is undervalued or overvalued Conduct due diligence of mutual funds, hedge funds, real estate, and private equity within the context of the portfolio under review



3. Research and Analysis		
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	<ul style="list-style-type: none"> ○ Limitations of accounting data and financial statement analysis 	
IV. Technical/statistical analysis	<ul style="list-style-type: none"> • Market theories explaining stock market behavior • Chart analysis • Evidence on the (lack of) efficacy of chart analysis • Types of price charts, including: <ul style="list-style-type: none"> ○ Bar charts ○ Line charts ○ Candlestick charts • Types of chart patterns, including: <ul style="list-style-type: none"> ○ Trendlines ○ Support and resistance levels ○ Reversal formations ○ Continuation patterns • Statistical analysis • Multi-factor regression analysis • Trend-following indicators such as moving averages • Momentum indicators, including: <ul style="list-style-type: none"> ○ Momentum oscillator ○ Moving average convergence-divergence (MACD) ○ Stochastic ○ Relative strength index (RSI) • Sentiment indicators, including <ul style="list-style-type: none"> ○ Investor expectations ○ Contrarian indicators ○ Bullish and bearish consensus indicators 	<ul style="list-style-type: none"> • Consider technical analysis when selecting individual securities or in reviewing the portfolio



3. Research and Analysis		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none">○ Public short ratio● Intermarket analysis	
V. Financial technology (fintech)	<ul style="list-style-type: none">● Use of fintech in investment management● Big data projects● Artificial intelligence tools● Machine learning	<ul style="list-style-type: none">● Stay up to date with the use of fintech in investment management processes, as appropriate or needed



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
I. Portfolio construction	<ul style="list-style-type: none"> Principles of portfolio construction Product due diligence process Various investment products in a portfolio Correlation, beta, and alpha Multi-factor asset pricing models Risk and return relationships of investment products Overall risk budget for the portfolio and subdivision over the sources of investment return Diversification and concentration Asset classes Capital market expectations Backtesting and simulation analysis Sensitivity analysis Portfolio management styles Ongoing consideration of account appropriateness Overall costs, including embedded fees Factors affecting rebalancing policy 	<ul style="list-style-type: none"> Consider the investment products available, their correlation, and risk and return relationship, when constructing a portfolio suitable for the client based on their IPS Ensure investment strategies are appropriate Consider impact of concentration and diversification and evaluate it within context of the IPS Consider the use of backtesting and simulation analysis and the use of sensitivity analysis to see how an investment strategy may perform Consider overall costs when constructing portfolios Evaluate the ongoing appropriateness of the portfolio construction for a client and rebalance as needed Consider the limitations of the APM role before making changes to the portfolio
II. Behavioural finance	<ul style="list-style-type: none"> Principles of behavioural finance Efficient market hypotheses: <ul style="list-style-type: none"> Weak form Semi-strong form Strong form Irregularities in the overall market, including: <ul style="list-style-type: none"> Fundamental Technical Calendar 	<ul style="list-style-type: none"> Consider behavioural finance and how it may impact a market's efficiency (e.g., irregularities) Identify behavioural biases in clients and how it can affect their decision-making Apply bias diagnoses when structuring asset allocation



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> ○ Behavioral and risk-based explanations for anomalies ○ Limits of arbitrage ● Behavioural biases of individual investors, including: <ul style="list-style-type: none"> ○ Investor biases ○ Cognitive biases ○ Emotional biases ○ Implications for financial decision-making ● Investor personality types and dimensions, including: <ul style="list-style-type: none"> ○ Uses ○ Limitations 	
III. Equity investments within portfolios	<ul style="list-style-type: none"> ● Bottom-up approaches, including: <ul style="list-style-type: none"> ○ Value-oriented approach ○ Growth-oriented approach ● Top-down approaches, including: <ul style="list-style-type: none"> ○ Macro or micro-economic analysis of trends and market forecasts ● Portfolio management strategies: <ul style="list-style-type: none"> ○ Passive <ul style="list-style-type: none"> ▪ Evidence supporting passive ▪ Replicating an index ▪ Tracking an index ▪ Fundamental indexing ▪ Risk budgeting and enhanced indexing ○ Systematic factors, including: <ul style="list-style-type: none"> ▪ Multi-factor funds ▪ Market, size, value, profitability, investment, momentum ○ Active 	<ul style="list-style-type: none"> ● Evaluate various strategies to create a portfolio with the goal of maximizing overall investment return, controlling risk, and matching the investment strategy to the investment objectives, constraints, and risk profile for the client ● Consider impact of concentration and diversification and evaluate it within context of the IPS ● Consider overall costs when constructing portfolios ● Consider the costs with new issues and other investment products including whether there is “double dipping”



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> ▪ Evidence on the failure, on average, of managers to beat passive indexes ▪ Sector rotation ▪ Timing ▪ Growth investing ▪ Value/income investing ▪ Small-capitalization size investing • Active portfolio construction, including: <ul style="list-style-type: none"> ○ Long only portfolios ○ Enhanced active equity investing ○ Market neutral long-short investing ○ Portable alpha strategy • Equity valuation • Use of derivatives in managing equity portfolios, including <ul style="list-style-type: none"> ○ Hedging with equity index derivatives ○ Changing a portfolio's asset mix <ul style="list-style-type: none"> ▪ Stock index futures ▪ Equity swaps • Tax considerations • Concentration • Diversification • New issues 	
IV. Debt investments within portfolios	<ul style="list-style-type: none"> • Active strategies, including: <ul style="list-style-type: none"> ○ Interest rate strategies ○ Yield curve strategies ○ Intermarket spread strategies ○ Intramarket spread strategies • Passive strategies, including: 	<ul style="list-style-type: none"> • Evaluate various strategies to create a portfolio with the goal of maximizing overall investment return, controlling risk, and matching the investment strategy to the investment objectives, constraints, and risk profile for the client



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> ○ Buy and hold ○ Variable credit and term exposure/fixed income factor investing ○ Barbell portfolio ○ Indexation ○ Laddered portfolio • Dedicated strategies, including: <ul style="list-style-type: none"> ○ Cash-flow matching ○ Immunization ○ Contingent immunization • Factor based strategies, including: <ul style="list-style-type: none"> ○ Duration ○ Credit ○ Carry ○ Currency • Evaluating different management techniques • Valuation and pricing • Bond financing and repo transactions • Risk factors, including: <ul style="list-style-type: none"> ○ Default risk ○ Interest rate risk ○ Reinvestment rate risk • Bond duration, including: <ul style="list-style-type: none"> ○ Properties of duration ○ Calculate Macaulay duration ○ Calculate modified duration ○ Calculate a portfolio's modified duration 	<ul style="list-style-type: none"> • Evaluate and use the appropriate debt strategy to create a portfolio • Calculate the price and yield of debt securities • Analyze debt securities based on price volatility • Calculate changes in bond prices due to duration or convexity • Evaluate the investment quality, term structure and pricing of debt securities • Determine bond price volatility using duration and convexity • Evaluate and consider a company's capital structure • Consider marketplaces when purchasing and selling different types of fixed income investments



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
	<ul style="list-style-type: none"> ○ Matching duration ○ Assumptions ● Bond's convexity ● Structured notes ● Marketplaces for different types of fixed income investments 	
V. Other bond portfolio construction techniques	<ul style="list-style-type: none"> ● Securitization ● Asset-backed securities ● Mortgage-backed securities ● Collateralized debt obligations ● Foreign denominated bonds ● Real return bonds ● Using derivatives in fixed income management, including: <ul style="list-style-type: none"> ○ Forward rate agreements ○ Interest rate futures ○ Interest rate swaps ○ Credit derivatives ○ Currency hedging ● High-yield bonds, including: <ul style="list-style-type: none"> ○ Credit rating agencies and methodology ○ Default risk and default rates ○ Recovery rates ○ Credit spread ○ Unique coupon structures ● Fixed income exchange traded funds (ETFs) 	<ul style="list-style-type: none"> ● Evaluate other fixed income investments and strategies and consider their suitability when constructing a portfolio
VI. Derivatives within portfolios	<ul style="list-style-type: none"> ● Various derivative strategies and how they can be used in a client portfolio ● Applications of derivative investments including: 	<ul style="list-style-type: none"> ● Consider correlation between the underlying interest, such as stocks, commodities, currencies, bonds, indices, and the derivative itself



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	<ul style="list-style-type: none"> ○ Hedging ○ Directional bets ○ Creating desired payoffs ○ Replicating an asset's return • Use of options strategies, including: <ul style="list-style-type: none"> ○ Covered calls ○ Protective puts ○ Spread strategies ○ Collars ○ Straddles ○ Strangles • Derivatives strategy selection • Options pricing models, including: <ul style="list-style-type: none"> ○ Intrinsic vs. time value ○ Black-Scholes-Merton ○ Binomial • Variable sensitivity metrics, including: <ul style="list-style-type: none"> ○ Delta ○ Gamma ○ Theta ○ Vega ○ Rho • Swaps, forwards, and futures strategies, including: <ul style="list-style-type: none"> ○ Currency ○ Interest rate ○ Equity 	<ul style="list-style-type: none"> • Consider and evaluate the use of derivatives in a client portfolio, including using pricing models and variable sensitivity metrics
VII. Alternative investments	<ul style="list-style-type: none"> • Types of alternative investments including: <ul style="list-style-type: none"> ○ Hedge funds and hedge fund strategies <ul style="list-style-type: none"> ▪ Relative value 	<ul style="list-style-type: none"> • Evaluate alternative investments and consider their suitability when constructing a portfolio



4. Portfolio Construction and Strategies		
SUB-COMPETENCY	KNOWLEDGE For PMs and APMs to understand as applicable	BEHAVIOURS AND SKILLS For PMs to apply and APMs to consider and apply as applicable
within portfolios	<ul style="list-style-type: none"> ▪ Event driven ▪ Directional ▪ Fund of hedge funds ○ Commodities ○ Real estate funds ○ Private equity ○ Liquid alternative funds ○ Insurance based investment products • Role of alternative investments in portfolios, including: <ul style="list-style-type: none"> ○ Ways to invest ○ Features and risks ○ Due diligence in selection of alternative investments ○ Advantages and challenges ○ Fees and costs and their impact on returns • Trends and developments, including: <ul style="list-style-type: none"> ○ Increased government regulation ○ Evidence of poor performance after costs ○ Institutionalization ○ Continued innovation ○ Cryptocurrency and other crypto asset-related products ○ Environmental, social and governance-related products and issues 	<ul style="list-style-type: none"> • Consider the use of alternative investments, including their valuation and correlation, within a portfolio • Consider fees and costs including liquidity, lock-up periods and “double-dipping”



4. Portfolio Construction and Strategies		
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VIII. Managed products within portfolios	<ul style="list-style-type: none"> Use of managed products, including: <ul style="list-style-type: none"> Client's needs Size of the client account Transaction costs and management fees Liquidity Mutual funds, including: <ul style="list-style-type: none"> Trust structure Corporate class structure Types of funds Management Philosophy and investing style Process Performance Fees Trading expenses Closed-end funds and their use in client portfolios The use of ETFs and platform traded funds (PTFs), including: <ul style="list-style-type: none"> Key features Advantages and disadvantages Wrap products, including: <ul style="list-style-type: none"> Wrap funds Wrap accounts Fund of funds Overlay management 	<ul style="list-style-type: none"> Conduct due diligence on managed products and evaluate whether they are suitable for a particular client portfolio Consider and evaluate the pros and cons of the various techniques for obtaining overlay management, including fees and costs to the client Consider and evaluate the best class of funds suitable for a client account



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	<ul style="list-style-type: none"> ○ Pros and cons ○ Separately managed accounts (SMA) ○ Unified managed accounts (UMA) ○ Unified managed household accounts (UMHA) 	
IX. International investing	<ul style="list-style-type: none"> • Major international equity benchmarks • Advantages and disadvantages of international investing • Ways to invest internationally, including <ul style="list-style-type: none"> ○ Private placement ○ Publicly traded shares of individual foreign companies ○ American depository share (ADS) ○ Mutual funds ○ ETFs • Other considerations, including: <ul style="list-style-type: none"> ○ Additional costs and expenses ○ Implications of home country bias and Canadian market relative size ○ Foreign trading and settlement conventions ○ Foreign withholding taxes and implications based on account types and investment ○ Foreign currency exchange costs ○ Impact of conversion spreads ○ Foreign currency hedging costs ○ Different volatility levels of international markets ○ Foreign regulatory restrictions • International tax conflicts and double taxation 	<ul style="list-style-type: none"> • Conduct due diligence and consider international investments into an asset allocation plan as suitable for the client



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	<ul style="list-style-type: none">• Recoverable vs. unrecoverable foreign withholding tax costs in different account types (taxable, RRSP, TFSA, etc.)• Sources of international tax law and how they interrelate• Tax treaties• Jurisdictional tax requirements as they relate to residency• Source country taxation• Tax relief exemptions under domestic tax law	



5. Portfolio Monitoring, Evaluation, and Client Reporting		
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I. Portfolio monitoring	<ul style="list-style-type: none"> Effective portfolio monitoring system, including: <ul style="list-style-type: none"> Continuous monitoring for compliance with client's objectives and other financial circumstances The importance of communication with clients about changes that have affected their portfolio 	<ul style="list-style-type: none"> Establish and implement an effective system to monitor client portfolios Review for consistency with IPS, KYC and other relevant information Consider the changes in economic environment Communicate with clients as appropriate, utilizing the dealer's contact management system Consider the limitations of the APM role before making changes to the portfolio
II. Evaluation of investment risk	<ul style="list-style-type: none"> Capital asset pricing model Arbitrage pricing theory/multi-factor asset pricing models Systematic risk or market risk Other priced risks (company size, relative price, etc.) Unsystematic risk or non-market risk Common risks faced by clients, including <ul style="list-style-type: none"> Inflation or purchasing power Credit risk Liquidity risk Currency risk Measures of historic risk Measures of expected risk Measures of investment risk, including: <ul style="list-style-type: none"> Standard deviation of returns Beta, including multi-factor analysis of different forms of beta Semi-deviation 	<ul style="list-style-type: none"> Evaluate a portfolio's investment risk using various measures Assess and implement the appropriate strategies to reduce a portfolio's investment risk Determine portfolio's exposure to known risk factors Rebalance the portfolio's investment risk, as needed For an APM, seek pre-approval from the PM as required prior to making any changes to the portfolio



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	<ul style="list-style-type: none"> Considerations to reduce a portfolio's investment risk, including: <ul style="list-style-type: none"> Diversification strategy Correlation coefficient Efficient frontier Options strategies Use of futures contracts 	
III. Portfolio performance evaluation	<ul style="list-style-type: none"> Calculation of a portfolio's return using: <ul style="list-style-type: none"> Dollar-weighted return Time-weighted return Pre-tax vs. post-tax return Pre-fee vs. post-fee return Performance appraisal and benchmark comparisons, including: <ul style="list-style-type: none"> Characteristics of an appropriate benchmark Classes of benchmarks Advantages and disadvantages Multi-factor benchmarking Matching multi-factor benchmark to manager based on style Use of comparison or performance universes Problems associated with comparison universes, including: <ul style="list-style-type: none"> Poorly defined comparison universes Survivorship bias Evaluation of a portfolio's performance using: <ul style="list-style-type: none"> Performance attribution analysis, including: <ul style="list-style-type: none"> Sector attribution factors Performance attribution styles Risk-adjusted return measures 	<ul style="list-style-type: none"> Assess and evaluate the performance of a client portfolio using various measurement and appraisal strategies Using performance attribution analysis, assess and evaluate a managed portfolio's overall return into various decision components to determine value-added and areas for improvement Analyze how style drift affects attribution analysis



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	<ul style="list-style-type: none"> ▪ Jensen's alpha ▪ Treynor ratio ▪ Sharpe ratio ▪ Multi-factor alpha 	
IV. Client portfolio reporting	<ul style="list-style-type: none"> • Standardized performance presentation guidelines • Global Investment Performance Standards (GIPS) <ul style="list-style-type: none"> ○ Key aspects, including information about: <ul style="list-style-type: none"> ▪ Dealer and responsibilities of the dealer ▪ Composite requirements ▪ Data used to determine performance calculations ▪ Calculation methodologies ▪ Presentation and reporting guidelines • Portfolio management reports: <ul style="list-style-type: none"> ○ Information included ○ Frequency ○ Tax implications • Discrepancies between portfolio manager reports and periodic regulatory client statements 	<ul style="list-style-type: none"> • Apply performance presentation guidelines and standards when presenting information and portfolio management reports to clients • Identify and reconcile any discrepancies in the portfolio management reports generated, and escalate as needed



6. Servicing Institutions		
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I. Institutional portfolio management	<ul style="list-style-type: none"> Service channels/Investment product structures, including pooled investment vehicles Institutional Investor and client types, including: <ul style="list-style-type: none"> Pension plans Mutual funds Insurance companies Endowments Charitable foundations Family trusts/estates Corporate treasuries KYC and suitability requirements in dealing with institutional clients Other legislation applicable to specific types of institutional clients Fiduciary duty and institutional investment funds, including: <ul style="list-style-type: none"> The named fiduciary in the trust indenture or fund's documents Fund's board of trustees Fund's administrative committee Carrying out duties prudently Fiduciary duty and corporate pension plans, including: <ul style="list-style-type: none"> Who is and can be a fiduciary Business decision vs. fiduciary action 	<ul style="list-style-type: none"> Identify the differences between servicing retail and institutional clients Adhere to investment mandates, regulatory requirements and other applicable legislation when dealing with various types of institutional clients Consider the use of different asset classes, including alternative investments, their valuation and correlation within a portfolio Consider special fiduciary duty owed to investment funds and other institutional clients



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II. Management of funds	<ul style="list-style-type: none"> Regulatory requirements applicable to each type of fund, including mutual funds, pooled funds, ETFs, and other similar funds Fund compliance and risk control process and procedures Creation and implementation of investment mandate Investment monitoring procedures 	<ul style="list-style-type: none"> Assist or manage a Canadian mutual fund or pooled fund in compliance with regulatory requirements and the investment mandate Assist with the implementation and maintenance of risk controls and monitoring procedures Prepare investment and fund compliance reports to satisfy institutional investor needs and requirements Consider how the fund may be reviewed by potential investors and other dealers for their product due diligence process Consider the difference in the regulatory requirements applicable to each type of fund
III. New investment products	<ul style="list-style-type: none"> New investment product development process, including: <ul style="list-style-type: none"> Key steps Conflicts of interest with proprietary products New product development committee Project management committee Benchmark selection Common design factors for investment guidelines and restrictions, including: <ul style="list-style-type: none"> Investment objectives Passive vs. active management Portfolio management style Sector restrictions Unique factors in equity mandate design, including: <ul style="list-style-type: none"> Capitalization Sector or industry specific funds 	<ul style="list-style-type: none"> Consider the key factors in creating new investment products, funds, or model portfolios Consider investment guidelines and restrictions of investment products



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	<ul style="list-style-type: none">▪ Dividend yielding securities▪ Cash and short-term investments▪ Covered call writing▪ Short sales○ Unique factors in fixed income mandate design, including:<ul style="list-style-type: none">▪ Sector-specific mandates▪ Credit quality▪ Term to maturity○ Unique factors in balanced fund mandates, including:<ul style="list-style-type: none">▪ Target asset mix policy• Development of model portfolios<ul style="list-style-type: none">○ Strategic vs. tactical asset mix strategy	