a. Program Structure

The program consists of a series of educational rotations and a number of longitudinal experiences. The PGY2 Pharmacy Residency Program Curriculum has been developed with the goal of fulfilling the required purpose.

Required Learning Experiences (38 week minimum)		
Learning Experience	**Typical Duration**	**Comments**
Orientation/Training	4 weeks	Orientation/Training may be shortened to 2 weeks if resident completed PGY1 at MCHS Location: Marshfield Medical Center – Marshfield
Adult Infectious Diseases and Antimicrobial Stewardship I	8 weeks	Administration of the antimicrobial stewardship program with progressive responsibilities. Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites
Adult Infectious Diseases and Antimicrobial Stewardship II	8 weeks	Administration of the antimicrobial stewardship program with progressive responsibilities Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites
Pediatric Infectious Diseases and Antimicrobial Stewardship	8 weeks	Rounding with pediatric infectious diseases physician for hospital, tele-health, and ambulatory based consultation Location: Marshfield Medical Center Pediatric Hospital – Marshfield
Ambulatory Infectious Diseases and Antimicrobial Stewardship	4 weeks	Administration of ambulatory based antimicrobial stewardship activities across the 60+ ambulatory clinics and urgent care centers. Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites and opportunity to travel
Clinical Microbiology	2 weeks	Microbiology rounds and working alongside microbiologists through the full service microbiology lab, Level III biohazard safety lab, mycology lab, and molecular lab. Location: Central Microbiology Lab within the Marshfield Campus
Infectious Diseases Consult	4 weeks	Rounding with adult infectious diseases physicians for hospital, tele-health, and ambulatory based consultation Location: Marshfield Medical Center – Marshfield
Required Longitudinal Learning Experiences		
Learning Experience	**Typical Duration**	**Comments**
Staffing	Concurrently beginning week 1 of Adult ASP II	Beginning week 1 of the Adult ASP II rotation, at least 1-week of every month, maintaining daily direct patient care responsibilities of the protected antimicrobial use and criteria for use policies, fielding provider and staff questions, and carrying the antimicrobial stewardship phone and pager
Infectious Diseases Research	Concurrently over 1 year	Occurs concurrently with scheduled learning experiences. Milestone due-dates for research proposal, ASHP abstract, ASHP poster, research protocol, and final manuscript. This also includes a required medication safety project involving a combination of medication use evaluation, process improvement, pharmacist or provider education, etc.
Elective Learning Experiences		
Learning Experience	**Typical Duration**	**Comments**
Emergency Department/Urgent Care	4 weeks	Staffing as a clinical pharmacist imbedded in the 38-room combined ED/Urgent Care center, the resident will incorporate infectious diseases and antimicrobial stewardship into the normal workflow of the imbedded pharmacist. This learning experience will expose the resident to both critically ill patients with severe infectious diseases at the point of empiric treatment as well as to more mild-to-moderate infectious syndromes.
Surgical ICU	4 weeks	Staffing a large surgical intensive care unit caring for patients with a variety of infectious syndromes. Common presentations include surgical site infections to trauma related diseases
Medical ICU	4 weeks	Staffing a large general medical intensive care unit caring for critically ill patients with a variety of infectious syndromes
Regional Center	4 weeks	The resident will rotate through one of the regional hospitals including but not limited to (Marshfield Medical Center – Weston, Minocqua, Eau Claire, Rice Lake)
Research I	4 weeks	If the resident chooses to participate in another research project apart from the required listed above, during this learning experience the resident will be given the breadth to pursue the development of another research question, protocol, and manuscript with the expectation of a complete draft manuscript by the end of the residency
Experimental Learning Experience	4-8 weeks	The scope of this experimental learning experience is up to the needs of the health system and the needs of

		the resident in their training. (E.g. OPAT service, HIV PrEP/PEP, etc.)
Adult Infectious Diseases and Antimicrobial Stewardship III	4 weeks	Administration of the antimicrobial stewardship program with progressive responsibilities. This elective will be heavily focused on application of learned knowledge and basic facilitation by the preceptor. Location: Marshfield Medical Center – Marshfield with remote surveillance of regional sites
OPAT and Outpatient Clinic	4 weeks	NON Primary Site Learning Experience. (Fargo ND). The resident will practice within a multidisciplinary infectious diseases clinic and gain experience with outpatient antimicrobial stewardship, outpatient parenteral antimicrobial therapy (OPAT), complex oral antimicrobial therapy (COPAT), therapeutic drug monitoring (TDM), HIV and hepatitis management support, and transitions of care.
Professional Development Opportunities		
Opportunity	**Deliverable**	**Approximate Timing**
Wisconsin Pharmacy Residency Conference (WPRC) or other Regional or National Meeting	PowerPoint Slides	April (Fourth Quarter)
ID Week or other ID related Conference	PowerPoint Slides	October (Second Quarter)

b. More on Learning Experiences

- The resident must select Electives to fulfill remaining 12 weeks of residency year.
- Direct Patient Care learning experiences utilizing non-pharmacist preceptors and without direct full time pharmacist oversight (e.g. ID consult) will be scheduled when evaluations conducted at the end of previous learning experiences reflect readiness to practice independently and the RPD and preceptors agree the resident is ready for independent practice. A non-pharmacist preceptor and a pharmacist preceptor will be assigned for these learning experiences.
- Residents should select their electives within 45 days of the start of the residency year. Residents are allowed to request a max of 2 elective rotation changes per academic year, which must be submitted by January 1.
- Resident may choose up to 8 weeks of non-direct patient care elective

c. Learning Experience Sequence

- Microbiology and Antimicrobial Stewardship and Infectious Diseases I learning experiences completed prior to any direct patient care learning experience with a non-pharmacist preceptor or any elective.
- Experimental learning experience elective or research elective requests will be reviewed by the Residency Advisory Committee based on merit of the resident's pro forma/research question
- Learning experience sequencing requests will be reviewed by the Residency Advisory Committee (e.g., residents seeking work in a specific arena who would benefit from extra focus)

d. Required Longitudinal Experiences

- **Staffing Component (30-33 weeks)**
    - At least 1-week of every month the resident while on regularly scheduled learning experiences (beginning during Adult ASP II) will be responsible additionally for:
        - Maintaining daily direct patient care responsibilities of the protected antimicrobial use and criteria for use policies
        - Fielding provider and staff questions
        - Carrying the antimicrobial stewardship phone and pager

- In the event the resident is unable to carry out these responsibilities while maintaining excellent care in the current learning experience, the RPD will be notified and make up days will be scheduled at a later time.
- The RPD will maintain regular communication with the resident before, during, and after these weeks to ensure resident well-being and good standards of care are maintained
- Minimum of 7 weeks per calendar year

- **Research Longitudinal (52 weeks)**
  - Residents will select and complete a project during the residency year.
  - Some of the key components of this learning experience include:
    - Participate in the Resident Research Program (including completion of the Collaborative Institutional Training Initiative (CITI) program)
    - Attend at least 2 Institutional Review Board (IRB) meetings
    - Prepare Poster Presentation and present at National meeting (e.g., ASHP Midyear)
    - Regional Pharmacy Conference Project Presentation (April)
    - Marshfield Clinic Medical Education Day Project Presentation (May)
    - Complete manuscript draft prior to end of residency
  - Additional medication safety project in coordination with medication safety pharmacy team.
    - May involve a combination of medication use evaluation, process improvement, pharmacist or provider education, etc.

e. Other non-learning experience expectations:

- Health-system outreach - Along with the residency director, periodic travel to regional sites of the health system for provision of pharmacist and healthcare professional education
- Monthly provision of education to clinicians, pharmacists, or staff in the form of presentations, infographics, in-services, etc. For example, Grand Rounds presentations, ID Journal Clubs, Dosing Consults, Resident Didactics.

f. Requirements for Successful Completion of the Residency Program (Standard 2.5)

The PGY1 Pharmacy Residency is a minimum of twelve months (52 weeks) of training. In keeping with the goals stated above, the following is a set of objectives and expectations for Marshfield Clinic Health System pharmacy residents:

1. Review at the beginning of the academic year (within 14 days of the start of the residency) these goals and objectives and the entire residency manual (Standard 2.10).

2. Attend all required and recommended lectures, conferences, and other academic events. Answer phone calls, respond to voicemails and respond to pages in a timely manner.

3. Attend all required academic and scientific meetings (e.g., Great Lakes Resident Conference or Pharmacy Society of Wisconsin (PSW) Conference, ASHP Midyear Clinical Meeting). Other meetings may also arise and attendance expectations will be discussed between the resident and the Program Director.

4. Complete all data-tracking activities as required by the program (e.g., PharmAcademic™ evaluations).Remember to discuss evaluations with your preceptor prior to submitting in PharmAcademic™.

5. Be present for and give feedback regarding candidates interviewing for residency positions in pharmacy.

6. The requirements for overall achievement of educational objectives for the residency in order to be awarded a certificate of completion: All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency.

7. Residents' primary professional commitment must be to the residency program. A residency is a full-time obligation. Residents must manage their activities, external to the residency, so as not to interfere with the program requirements as defined in the ASHP Standard.

8. Residents must seek constructive verbal and documented feedback that direct
their learning. Residents must be committed to making active use of the constructive feedback provided by residency program preceptors and the program director.

9. In addition to the above, residents will be required to present all of the following deliverables by the end of the residency year:

PGY2 Infectious Diseases Pharmacy Completion Requirements and Deliverables Table:

Completion Requirement	Location of Documentation	Deliverable
Wisconsin pharmacy licensure per timeframe within licensure policy	Workday	Copy of pharmacy licensure
Provision of PGY1 Residency certificate of completion	Resident files in PharmAcademic, physical copies returned to Pharmacy Director	Copy of PGY1 completion certificate
Complete all of the required learning experiences		Summative evaluation in PharmAcademic
Complete draft manuscript of longitudinal research project		Complete manuscript draft
Regional or National Conference Presentation		Complete slides or poster
Completion of at least one pharmacy division cost reduction project		Visual summary of cost reduction project and results
At least one Grand Rounds Presentation		Complete slides
Presentation at Fall Pharmacotherapy Conference		Complete slides
At least one antimicrobial/infectious diseases related monograph presented to the Systemwide Pharmacy and Therapeutics Committee		PDF monograph uploaded to the Systemwide P&T folder along with meeting minutes
Prepare and present the systemwide antibiogram to the Systemwide Pharmacy and Therapeutics Committee		Physical trifold antibiogram and Systemwide P&T minutes
Present at systemwide ID Journal Club		Physical handout or complete slides from presentation
Develop at least one treatment guideline		Uploaded guideline to the Antimicrobial Stewardship Program webpage
All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency		Evaluations in PharmAcademic
Complete Appendix requirements as outlined in ASHP CAGOs document (see below)		Completed Table

Completion Requirements Tracker	End of Quarter 1	End of Quarter 2	End of Quarter 3	End of Residency
All R1 Patient Care Objectives (100%) must be achieved (ACHR) by the end of the residency. Eighty percent (80%) of R2, R3, and R4 objectives must be achieved by the end of residency				
Wisconsin pharmacy licensure				
PGY1 Residency certificate				
Complete all of the required learning experiences				
Complete draft manuscript of longitudinal research project				
At least one Grand Rounds Presentation				
Presentation at Fall Pharmacotherapy Conference				
Regional or National Conference Presentation				
Completion of at least one pharmacy division cost reduction				

project				
At least one antimicrobial/infectious diseases related monograph presented to the Systemwide Pharmacy and Therapeutics Committee				
Prepare and present the systemwide antibiogram to the Systemwide Pharmacy and Therapeutics Committee				
Present at systemwide ID Journal Club				
Develop at least one treatment guideline				
Complete Appendix requirements as outlined in ASHP CAGOs document (see below)				

Infectious Diseases Appendix CAGO Requirements:

Topic	L/TD	READ	CASE	DPC	DPC+	LE	Date(s)
Bone and Joint Infections							
Cardiovascular Infections							
Central Nervous System Infections							
Fungal Infections							
Gastrointestinal Infections							
Intra-abdominal Infections							
Neutropenic Fever							
Opportunistic Infections in Immunocompromised Hosts							
Respiratory Tract Infections: upper and lower							
Sepsis							
Skin and Soft Tissue Infections							
Urologic Infections							
Viral Infections							
Fever of Unknown Origin*							
Hepatitis B*							
Hepatitis C*							
HIV and AIDS*							
Opthalmologic Infections*							
Parasitic Infections*							
Reproductive organ infections*							
Rickettsial Infections*							
Sexually Transmitted Diseases*							
Tuberculosis and Other Mycobacterial Infections*							
Travel Medicine*							
*LE/TD – Learning Experience/Topic Discussion, READ – Readings, CASE = Case presentation, DPC – Direct patient care, DPC+ - Multiple DPC. *May be met by means other than Direct Patient Care*							

Sample Resident Schedule:

	July		Aug	Sept	Oct		Nov	Dec	Jan	Feb	Mar	Apr	May	June
Orientation	2W													
Microbiology		2W												
Adult ASP I			8 W											
ID Week					1W									
Elect I						4W								
Adult ASP II							8W							
ID Cons									2W					
Amb ASP										4W				
Ped ASP											8W			
Elect II													4W	
Elect III														4W
Research (L)	X*		X	X*	X		X*	X	X*	X	X*	X	X	X*
Staffing (L)							X**	X**	X**	X**	X**	X**	X**	X**
Education (Non-LE)			X	X	FP		X/GR	X	X	X	X/GR	X	X	X

* Periodic "Research Weeks" Exempt from staffing requirement.

**One week every month starting the first week of ASP II

Abbreviations: ASP (Antimicrobial Stewardship Program, Cons (Consult), Amb (Ambulatory), Ped (Pediatric), Elect (Elective), FP (Fall Pharmacotherapy), GR (Grand Rounds)

Protected Academic Time (e.g., Project Time)

Academic time is important for building resident competency and is valued by both ASHP and the Marshfield Medical Center Pharmacy Residency Program.

Periodic weeks throughout the residency year.

By being given this protected academic time away from patient care, residents acknowledge that the time will be maximized and used for academic purposes. Acceptable uses for protected academic time include:

- Working on ongoing resident research, manuscript preparation, committee assignments, rotation assignments, presentations, or longitudinal management activities.
- Abuse of this protected time will result in disciplinary action, including restrictions on future academic time and/or the assignment of an activity.

Exceptions to protected academic time include:

- When the departure of a resident from the clinical area to attend academic time places a patient in imminent danger