



# MS in Biomedical Visualization: Part Time Student Planning Course Schedule

The [Biomedical Visualization program](#) is a two year full time masters program consisting of two Summer, Fall, and Spring semesters. While the majority of our students attend full time, certain exceptions are allowed for students who request to complete the program part time.

With permission from faculty, the part time student will work with their advisors to plan out their graduate career. The part time track has the same required courses of the full time track but spread throughout 4-5 years. Towards the end of the first year the part time student will be required to select either an animation, modeling, interactive, illustration, or design focus for their remaining electives. See final page for additional information on each track.

Check out [What to Expect](#) for additional details on the timing of the program.

*Last updated 2/20/2024*

## YEAR ONE

Summer 1			
Required - All of the following courses for:			
All tracks	BVIS 501	Professional Practices in Biomedical Visualization	1 hour
	BVIS 552	Graphic Design	2 hours
Fall 1			
Required - All of the following courses for:			
All Tracks	ANAT 441	Gross Human Anatomy	5 hours
Illustration, Design Tracks	BVIS 510	Anatomical Visualization	3 hours
Spring 1			
Required - All of the following courses for:			
All Tracks	BVIS 508	Pathophysiology for Biomedical Visualization	3 hours
Illustration, Design Tracks	BVIS 522	Illustration Techniques	3 hours
Required - One of the following courses for:			
Animation, Modeling, Interactive Tracks	ANAT 544	Advanced Craniofacial Anatomy	3 hours
	NEUS 403	Human Neuroanatomy	3 hours
	BVIS 560	Molecular Pharmacology for Biomedical Visualization	3 hours

# YEAR TWO

## Summer 2

Required - All of the following courses for:

<b>All Tracks</b>	BVIS 518	Web Development	2 hours
	BVIS 500	Biomedical Visualization Techniques	2 hours

## Fall 2

Required - All of the following courses for:

<b>All Tracks</b>	BVIS 505	Visual Learning & Visual Thinking I	2 hours
<b>Animation, Modeling, Interactive Tracks</b>	BVIS 519	Modeling I	3 hours
<b>Illustration Track</b>	BVIS 548	Advanced Illustration Techniques	3 hours
<b>Design Track</b>	BVIS 562	Advanced Graphic Design	3 hours

## Spring 2

Required - All of the following courses for:

<b>Animation Track</b>	BVIS 505	Visual Learning & Visual Thinking I	2 hours
<b>Modeling Track</b>	BVIS 519	Modeling I	3 hours
<b>Interactive Track</b>	BVIS 548	Advanced Illustration Techniques	3 hours

Required - One of the following courses for:

<b>Illustration, Design Tracks</b>	ANAT 544	Advanced Craniofacial Anatomy	3 hours
	NEUS 403	Human Neuroanatomy	3 hours
	BVIS 560	Molecular Pharmacology for Biomedical Visualization	3 hours

Optional - One of the following off track electives for:

<b>Animation, Modeling, Interactive Tracks</b>	BVIS 522	Illustration Techniques	3 hours
	BVIS 536	Serious Game Development	3 hours
	BVIS 541	Animation I	2 hours
	BVIS 551	3D Printing with Data Segmentation (2nd 8 weeks)	2 hours
	BVIS 594	Special Topics in Biomedical Visualization	1-3 hours
	BVIS 596	Independent Study	1-4 hours

# YEAR THREE

## Summer 3

Required - All of the following courses for:

<b>Animation Track</b>	BVIS 542	Animation II	3 hours
<b>Modeling Track</b>	BVIS 520	Modeling II	3 hours
<b>Interactive Track</b>	BVIS 548	Advanced Illustration Techniques	3 hours
<b>Illustration Track</b>	BVIS 538	Medical Legal Visualization	2 hours
<b>Design Track</b>	BVIS 535	Visual Learning & Visual Thinking II	2 hours

Optional - The following course for:

<b>Interactive Track</b>	BVIS 535	Visual Learning & Visual Thinking II	2 hours
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## Fall 3

Required - All of the following courses for:

<b>All Tracks</b>	BHIS 499	Information Sources in BHIS	1 hour
	BVIS 595	Seminar in BVIS	1 hour
<b>Animation Track</b>	BVIS 543	Animation III	4 hours
<b>Interactive Track</b>	BVIS 539	Immersive Interactive Visualization	3 hours

## Spring 3

Required - All of the following courses for:

<b>All Tracks</b>	BHIS 503	Strategic Inquiry in Biomedical Visualization	3 hours
<b>Modeling Track</b>	BVIS 521	Modeling III	2 hours
<b>Illustration Track</b>	BVIS 530	Surgical Illustration	2/4 hours

# YEARS FOUR & FIVE

## Summer 4

Required - All of the following courses for:

<b>All Tracks</b>	BVIS 597/597	Project Research/Thesis - 3	2 hours
	BHIS 595	Seminar in BHIS	1 hour

## Fall 4

Required - All of the following courses for:

<b>Animation, Modeling, Interactive Tracks</b>	BVIS 510	Anatomical Visualization	3 hours
<b>Illustration, Design Tracks</b>	BVIS 502	Clinical Sciences for BVIS	3 hours

Optional - One of the following off track electives for:

<b>All Tracks</b>	GEMS 521	Biomedical Sciences	3 hours
	NEUS 501	Foundations of Neuroscience I	3 hours

## Spring 4

Required - All of the following courses for:

<b>All Tracks</b>	BVIS 597/597	Project Research/Thesis - 2	1-2 hours
	BVIS 575	Business Practices	2 hours

At the end of their fourth spring semester, illustration and design track students are expected to defend their research and graduate. Animation, modeling, and interactive track students will continue their education for two additional semester with their research defense occurring during their fifth summer and graduation at the end of their fifth fall semester.

## Summer 5

Required - All of the following courses for:

<b>Animation, Modeling, Interactive Tracks</b>	BVIS 597/597	Project Research/Thesis - 2	1 hour
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## Fall 5

Required - All of the following courses for:

<b>Animation, Modeling, Interactive Tracks</b>	BVIS 597/597	Project Research/Thesis - 2	1 hour
	BVIS 502	Clinical Sciences for BVIS	3 hours

## ANIMATION TRACK

Enter program: Summer 1  
Research defense: Summer 5  
Exit program: Fall 5

<b>Track Electives</b>	<b>14 hours</b>
BVIS 500: Biomedical Visualization Techniques	2 hours
BVIS 519: Modeling I	3 hours
BVIS 541: Animation I	2 hours
BVIS 542: Animation II	3 hours
BVIS 543: Animation III	4 hours

## MODELING TRACK

Enter program: Summer 1  
Research defense: Summer 5  
Exit program: Fall 5

<b>Track Electives</b>	<b>12 hours</b>
BVIS 500: Biomedical Visualization Techniques	2 hours
BVIS 519: Modeling I	3 hours
BVIS 551: 3D Printing with Data Segmentation for Medicine	2 hours
BVIS 520: Modeling II	3 hours
BVIS 521: Modeling III	2 hours

## INTERACTIVE TRACK

Enter program: Summer 1  
Research defense: Summer 5  
Exit program: Fall 5

<b>Track Electives</b>	<b>13 hours</b>
BVIS 500: Biomedical Visualization Techniques	2 hours
BVIS 519: Modeling I	3 hours
BVIS 536: Serious Game Development	3 hours
BVIS 537: Advanced Serious Game Development	2 hours
BVIS 539: Immersive Interactive Visualization	3 hours
<i>Recommended Optional Elective:</i> BVIS 535: Visual Learning & Visual Thinking II	2 hours

## ILLUSTRATION TRACK

Enter program: Summer 1  
Research defense: Spring 4  
Exit program: Spring 4

<b>Track Electives</b>	<b>12 hours</b>
BVIS 522: Illustration Techniques	3 hours
BVIS 500: Biomedical Visualization Techniques	2 hours
BVIS 548: Advanced Illustration Techniques	3 hours
BVIS 538: Medical Legal Visualization	2 hours
BVIS 530: Surgical Illustration	2 hours

## DESIGN TRACK

Enter program: Summer 1  
Research defense: Spring 4  
Exit program: Spring 4

<b>Track Electives</b>	<b>13 hours</b>
BVIS 522: Illustration Techniques	3 hours
BVIS 500: Biomedical Visualization Techniques	2 hours
BVIS 562: Advanced Graphic Design	3 hours
BVIS 535: Visual Learning & Visual Thinking II	2 hours
<i>One Additional Elective</i>	3 hours