

Special Mathematics Lecture (Differential Geometry)			
Registration Code	0063611	Credits	2.0
Course Category	Sciences Basic		
Term (Semester) / Day / Period	G-I (1st year, Fall Semester) / Wed. / 6 (18:15~19:45)		
Instructor	RICHARD Serge Charles		
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Target Schools (Programs)	Hu(J)·La(S)·Ec(S)·Sc(P·C·B)·En(P·C·Au)·Ag(B)		
<p>●Aim of the course</p> <p>Differential geometry plays a central role in many physical theory, as for example in classical mechanics, in solid states physics or in general relativity. During this one semester course, many essential notions will be introduced, among them the definitions of a manifold, of the curvature, of the parallel transport, of the holonomy, etc. Depending on the interest of the audience, applications in one of the mentioned theory will be proposed.</p> <p>●Course Prerequisites</p> <p>Basic knowledge on calculus and linear algebra, as provided in Calculus I & II and in Linear algebra I & II. Motivated 1st year students can also attend without these prerequisites but after a discussion with the instructor.</p> <p>●Course Content (provisional)</p> <ol style="list-style-type: none"> 1. Manifolds and submanifolds, Riemannian manifolds 2. Connections, parallel transport 3. Geodesics 4. Curvature 5. Homology theory <p>●Course Evaluation Methods</p> <p>The final grade will be determined by the active participation during the lectures (as explained during the first lecture).</p> <p>●Notice for Students :</p> <p>This course is an optional subject which does not count towards the number of credits required for graduation in any program at Nagoya University.</p>			
Textbook	Material will be provided during the lectures		
Reference Book	Reference books will be provided during the lectures		